

TITLE PAGE

**COMPUTERISATION OF MOTOR
INSURANCE PREMIUM**

[A CASE STUDY OF NICON INSURANCE CORPORATION]

BY

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CERTIFICATION

This project has been read and approved by the undersigned as meeting the requirement for the award of Post Graduate Diploma in Computer Science [PGDSC] of the Department of Mathematics and Computer Science, Federal University of Technology, Minna.

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DEDICATION

To my wife: **Deborah**

And

To my children: **Josephine**
 Joseph
 Joshua
 Josiah

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I acknowledge the help and assistance that I have received from many individual.

Firstly, I acknowledge God Almighty the giver wisdom, Knowledge and understanding.

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ABSTRACT

Just like the Industrial Revolution days when the use of machines becomes more prominent and substitutes for human labour, the computer technology brought about greater advancement in doing the ones job either through machine and human efforts more efficiently and accurately with greater speed than what the Industrial Revolution offers. A look at the trends of event in our society today reveals that computer and electronic technology has been incorporated into almost every aspects of society. Thus, there is no better way to describe how advanced a society or business is, than how computerised it is. Hence the need for computerised Motor Insurance with a view to maintaining information about customers, types of covers provided and premiums chargeable on each risk introduced to the insurance company. In conformity with this technological change therefore the manual calculation of premium and operations of motor insurance is assessed and an attempt is made to computerise it for greater efficiency, cost effectiveness, error free, information management through a program written in visual basic for automation, with the hope of making Insurance Industry in Nigeria relevant in light of globalisation.

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CHAPTER ONE

GENERAL INTRODUCTION

1.1 INTRODUCTION

It is hard to remember a time, just a few years ago, when computers were *not* everywhere. They were not on desks, or sales counters or bank halls. They also were not in everything, from watches to ovens and cars. The *Computer Revolution* has come upon us with amazing speed. This development could be compared to the *Industrial Revolution*.

The Industrial Revolution changed human society on a massive scale, introducing electricity, telephones, radios, automobiles, and air planes. The Computer Revolution also is bringing a dramatic shift in the way we live, but it is happening at a great deal more quickly than the Industrial Revolution.

Thus, the computer has become an indispensable element in business, such that today, more than half of the business and economic activity involves the computer. Thus, computers are used in manufacturing industries, agriculture, construction, government, education, politics, publishing, transportation, health services, management, money and banking, finance, and insurance which is the centre point of this research work with particular reference to the use of computer in Motor Insurance.

But what exactly is this new invention, this computer that is changing the world? A common, somewhat simplified definition is that the *computer is an*

electronic device that can be used to process information. Yet A computer is essentially an electronic device, which processes data supplied through any available input device (e.g. keyboard, diskette or fixed disk drive, tape unit) into information which can be stored in its memory or communicated to the user via any available output device (e.g. Video Display Unit, or Screen, Printer, tape unit, diskette drive. Electronic optical storage media, CD ROMS are rapidly becoming important.

Over the last few decades, almost every business, whether large or small, has “computerised”. And every aspect of business from sales to product delivery now involves the use of computer. In marketing, the computer is used to maintain information about customers and accounts. And most large businesses now have a special department to manage the computers and the flow of computerised business information.

Today, there is probably no better indication of how advanced a society is than how computerised it is. In our society, computers are now fundamental components of our jobs. Thus, our complex systems of banking, finance, insurance and investments could not function without computers. Infact, everyday it gets harder to find any type of business that does not use computers in some way. This is because computers can store accurate information, they are used to help people make better decisions, computers can continue to operate day or night, 24 hours a day, they are now used to provide a level of services to human that was unknown before their invention.

As business and companies began to take advantage of the computer's to fulfil their business objectives, other business soon followed in order to remain competitive. Today, a business that has not incorporated computers into at least some of its business activities cannot hope to compete with others that have.

It is in the light of the above that this study is directed towards the "Computerisation of Motor Insurance Premium" and consequent storage of relevant information in connection with both the insureds and insurer.

1.2 Background to the Study

It is a known fact that computers are changing the way individuals and organisations work. By providing timely access to data, facilitate time spent on checking and rechecking data and more time getting work done. In addition, to increasing overall productivity, computers have had fundamental impacts on the way some people approach their jobs.

Insurance a form of services industry depends on a large number of insured and actuarial calculations in respect of the various risks introduced to them, which consequently requires a lot of paper work and documentation in files. As a result most insurance companies have to engage quite a number of staff to carry out one task or the other, ranging from issuance of proposal forms, to prospective insured, assessment of the proposal forms completed by the proposer, calculations of premiums due, issuance of receipt for payment, cover note/certificate of Motor Insurance and policy forms. And since Motor

Insurance is an annual contract, the insurance staff has to keep track of records of all insureds, with particular reference to the expiry date of the certificate of motor insurance of the policyholders with the aim of inviting them for renewal notice has to be sent to the insured three or four weeks to the expiry date. Again the renewal premium has to be calculated and another certificate of insurance has to be issued with endorsement and receipt.

The above shows the complexity of the operation of motor insurance underwriting. It is better experienced than being told, the period of time wasted by the insuring public before all the above task are carried out and concluded by staff assigned with the respective duties. Tracing of an insured file, either through the index card/bin card or number code by the filing clerks in the filing room, poorly typed or wrongly typed insurance documents like certificate of motor insurance, wrong calculation or computation of premium and storage of data/facts about the insured are of great concern to the researcher with the current dispensation, that is Computer Age and Information Technology.

Since the primary objectives of the insurance companies is the satisfaction of customers and maximisation of profit in return for the services rendered, it wouldn't be out of place therefore, if a concerted effort is made to computerise the entire operation of insurance industry.

It is the opinion of the researcher that where and when motor insurance operations is computerised, there will be increased productivity, workers enthusiasm, easier access to information will be achieved and problems

associated with non-computerisation will be reduced, if not completely eliminated.

1.3 Statement of the Problem

In most of the insurance companies in Nigeria, the operation of motor insurance are manually done and documented. And this has been a Herculean task because of numerous problems, these includes:

Computation error on the part of the underwriting clerk and consequent underpayment or overpayment or premium with resultant need for either request for additional premium or return of premium as the case may be.

In addition, due to inadequacies, such as insufficient space and storage facilities, filing store are often crowded with piles of files, while some valuable records are littered about, others are kept on the tables, shelves and in the wooden cupboards or steel cabinets, some files are arranged haphazardly. This often led to missing file of insured's record files.

The number of insuring public taking motor insurance policies result in many motor insurance policies, thereby, storing the file and retrieving becomes problems when there is need for them. In essence, it is this major problem that makes the retrieval of vital information and relevant statistical data from both old and new motor insurance files a Herculean task and time wasting.

Furthermore, documentation problem – standard documents such as policy, certificate and cover are usually delayed because of the need to typing

them manually, which gives rise to error and need for correcting fluid, thus producing a rough document. Also the tiny print of the insurance policy has been criticised by the insuring public.

For these reasons it has been necessary to examine whether:

- (a) A computerised motor insurance will offer a correct, error free, accurate and unambiguous motor insurance premium?
- (b) An automated motor insurance operation will increase the speed, reduce time spent and improved the services rendered by the insurers to the insured?
- (c) Statistics which is the cardinal tool for determining rating in insurance can be easily collated, presented, analysed and interpreted for management decision making and accessible when needed/
- (d) To identify whether a computerised system will reduce or completely eliminate staff redundancy, cost, space requirement and offers a better and quality documents such as policy forms, certificate, cover note etc.?

This is important since it is considered that many of the changes that will occur after computerisation of the motor insurance operations need to be taken into account when formulating policy, with a view to improving on the existing method which has been proved to be inadequate in line with the global changes in the business environment of which insurance is not an exception.

1.4 Objectives of the Study

Insurance is the bedrock of any virile economy. And in order to perform its functions as expected in an ever-changing economy, with technological changes and wide use of computers, it has become increasingly important to examine and assess the services rendered by the insurance companies with a view of computerising its services.

Thus, this research work will examine the current approach to premium computation and initiate a computerised program that will replace the manual method.

Statistical information and record keeping is vital to any business organisation, for the purpose of decision-making. This research work is aimed at providing a storage bank for such and retrieval made much more easier. This should replace the old filing system with the attending demand for space and efforts, time to locate and collate data.

Customers' satisfaction and profit maximisation has always be twine objectives of business organisation. This research work is expected to enhance the quality of services rendered at a reduce cost, lesser time spent and at a higher profit margin.

The research ultimately will make recommendations for improvement based on findings.

1.5 Scope of the Study

All classes of insurance as discussed in the subsequent section require computerisation, for effective and efficient services to be provided to the insured. To cover all this grounds will amount to volumes of texts, hence the need to narrow it down to one of the important classes of insurance that is Motor Insurance.

The study is specially directed towards the computerisation of Motor Insurance Premium. The scope of the computerisation will cover the four (4) main covers provided under the motor insurance, that is Act Cover Only; Third Party Only; Third Party, Fire and Theft; and Comprehensive.

For this reason, it has been necessary to study the operation of motor insurance from proposal form, to premium computation, policy documentation and renewal of the contract. It is worth of note here that, the procedure for calculating motor insurance premium used in connection with NICON Insurance Corporation is applicable to all other Insurance Companies in Nigeria because of the standardisation of the tariff.

Further research work could be carried out on the other aspects of insurance not covered by this write-up by interested researcher.

1.6 Limitation of the Study

Since all classes of insurance underwritten in the insurance industries involves premium computation it would have been desirable to write a program

to cover all of these, but the researcher inability to cover all aspects of insurance was due mainly to the following:

- (a) Financial requirement to obtain adequate data and information with which to design the program, tested, documented and implemented is not available.
- (b) Apart from Motor Insurance, Workmen Compensation, and Employer Liability Insurance which are tariff based, other classes of insurance premiums' computation varies from companies to companies depending on their experience.
- (c) Time required within which this research work is to be written and submitted for subsequent defence, is not sufficient for such and elaborate study, coupled with other academic pressure.

1.7 Significance of the Study

Benefits derived from the implementation of technologically based systems will obviously vary significantly according to the nature and extent of the changes made and the nature of the business activities. Any benefit will also depend on the extent to which the underlying problems were analysed initially and whether the right solution is applied to the right problem. This research work will thus, be of importance in the following respects:

- (a) It will increase the level of office productivity perhaps due to handling of volumes of data with few personnel.

- (b) It will provide quality decision as a result of more purposeful and timely information flows.
- (c) It will bring about integration of diverse activities either by multi-tasking or multi-access facilities using integrated software packages and computers of suitable capabilities.
- (d) Problem solving will be improved by decision support systems.
- (e) Improved communications by the use of local or wide area networks.
- (f) Information will more easily be accessible by data bases and online information systems.
- (g) On-line processing improves overall efficiency.
- (h) Improved organisational control because of electronic mail and other electronic facilities.
- (i) The improvement of customer satisfaction is also of importance because without customers a business does not survive.
- (j) Where more relevant and complete information is provided at the right time, then management are also able to make well informed and speedy decisions which would otherwise not be possible.

1.8 Definitions of Terms

NCD – “No Claim Discount” is a system in motor insurance allowing premium reductions to be giving in return for no claims experience.

Fleet Discount – NCD given for more than two vehicles insured on the same policy.

Premium – The money paid by the insured to the insurer for the insurance cover provided.

Rate – The sum charged for each unit by which the premium is calculated.

Policy – Policy documents setting down in writing the agreement between the insured and insurer.

Tariff Rating – An agreement by members of insurance companies to calculate and charge the same premium and to regulate prices and control the market.

Bug – An error in a computer program and **Debugging** is the process of finding and fixing computer program errors.

Database – All the operational record information needed to handle a company's business.

DBMS – An abbreviation for Data Base Management System.

Computer File – A collection of records which are logically related to each other and handled as one units.

A System Analyst – Studies existing systems and plans new, improved systems;

Systems Analysis – is the process of studying existing systems to determine how they work and how they meet users' needs; and **System Design** is the process of planning new systems.

CHAPTER TWO

LITERATURE REVIEW

2.1 An Overview of Insurance

A brief survey of literature reveals that differences of opinion among authors concerning how the term should be defined. In whatever way they define the term; their use of it indicates that they are all referring to the same thing when they refer to insurance.

Dickson (1986) defined insurance as a risk transfer mechanism, whereby the individual or business enterprises can shift some of the uncertainty of life on to the shoulders of others. In return for a known premium usually a very small amount compared with the potential loss, the cost of that loss can be transferred to an insurer.

Adeyemi (1992) from a legal point of view defined insurance as a contract whereby two parties charges themselves with risk of fortuitous to which something is exposed, and obliges himself to indemnify the others from the loss which those accidents may occasion in case of their happenings, in consideration of a sum of money which the other contracting party gives as a prize with which he is charged.

Yet insurance is defined by **Dickson and Carter (1984)** as an arrangement by which one party (the insurer) promises to pay another party (the insured) a sum of money if something should happen, which causes the

insured to suffer a financial loss. The responsibility for paying such losses is then transferred from the policyholder to the insurer. In return for accepting the burden of paying for losses when they occur, the insurer charges the insured a price, the insurance premium.

A critical look at **Athearn, Pritchett and Schmit (1997)** definition of insurance gives a picture that all the above definitions borne down to the same thing. They defined insurance as a social device in which a group of individual transfer risk in order to combine expenses, which permits mathematical prediction of losses, and provides for payment of losses from funds contributed by all members who transferred risk. Those who transfer risk are called insured. Those who assume risk are called insurers.

This shows that insurance is: -

1. Is a social devices in that people and organisations help themselves and each other by exchanging relatively small premiums for economic security against potentially large losses,
2. Involves a large group of people or organisations who are exposed to risks,
3. Allows each person or organisation who becomes an insured to transfer risks to the whole group, as evidenced by an insurance contract,
4. Involves the systematic accumulation of funds through the statistical prediction of losses and calculation of premiums, and
5. Pays losses in accordance with the terms of the insurance contract.

2.2 Concept of Motor Risk

According to **Adeyemi (1992)** a motor vehicle is a vehicle propelled by mechanical power other than a vehicle constructed to run on rails and it includes a motorcycle. Thus the expression may include agricultural tractors, bulldozers, caterpillars and other mechanically propelled conveyances constructed to move on roads, including transit van.

Yet **Freeman and Pellatt (1986)** classified motor insurance risk into the following: -

- Private cars (not used for carrying passengers for hire or reward)
- Commercial vehicles (including private cars carrying passengers for hire or reward).
- Agricultural vehicles
- Motor trade risks
- Motor cycles

A critical look at the above definitions shows that **Adeyemi (1992)** and **Freeman & Pellatt (1986)** seem to agree on what comprise what motor risk is. For the purpose of this research work, therefore and in compliance with what operates in the insurance industry this classification will be adopted.

Covers available in the motor insurance market

Diacon & Carter (1984) and **Freeman & Pellatt (1986)** agreed that irrespective of the classification of motor risk mentioned above, motor insurers will grant one of four main types of policy cover, namely:

(1) Road Traffic Act Only

The road traffic act only provides cover against injury or death of person as a result of the use of a vehicle on the highway. That is to say, only liability in respect of injury or death to third parties are covered, any loss of property or damage to other peoples property is not covered. This is the least cover provided by the insurance company, with a minimum amount of ₦200.00 this cover will be granted.

(2) Third Party Only.

The third party only covers liability against:

- Bodily injury or death
- Damage to other people's property (damage to other people's car)
- Passenger indemnity (liability of passenger as when a passenger opens a cars door and injures a pedestrian).
- Indemnity to employer or partner
- Indemnity to legal personal representative
- Legal costs (cost incurred with the consent of the insurer)

Note: Insurer in no circumstances will pay any fine that may be imposed upon the insured.

(3) Third Party, Fire And Theft

In addition to the covers provided by third party only discussed above, the third party fire and theft covers the insured car against the risks of fire and theft,

whether an attempted theft or actual (i.e. Damaged in an attempt to steal or stolen and found damaged insurer will pay the cost of repairs).

(4) Comprehensive

This is widest cover available and it covers a very wide range of risk associated with the use of vehicle on the road. The comprehensive policy provide all the above mentioned risk including the followings:

- Loss of or damage to the insured's motor vehicle including accessories fitted to the vehicle and spare parts at the insured's garage. Cost of towing the vehicle for repairs and cost of replacing broken windscreens & window
- Liability to third parties (as enumerated above)
- Injury to policyholder and policyholder's spouse
- Medical expenses
- Loss or damage to rugs, clothing, and personal effects

2.3 Motor Insurance Tariff/Premium

The special nature of motor insurance and the interest the government has in protecting her citizens against accident, the government plays an important role in the rate/pricing of motor insurance.

Freeman & Pellatt (1986) reveals that in the early days of motor insurance, the Accident Offices' Association adopted a common set of guidelines and basic rates for motor insurance. the intention was to eliminate

unhealthy competition among insurers in United Kingdom, thus, they came out with the "Motor Tariff".

The insurance companies subscribing to the tariff agreement pooled statistics and set minimum rates for the various types of risks and classes of motor insurance business discussed above. The tariff companies were not allowed to undercut these rates in any circumstances, although they were allowed to increase the premium or impose special terms where the features of the risk warranted it. Discounts to be allowed and commissions are also regulated. This view is also supported by **Diacon & Carter (1984)**.

Thus, this same system was adopted by the insurance organisation in Nigeria and regulated by the Federal Government and supervised by the National Insurance Commission (NAICOM). To this effect all premiums computation are done manually or with the aid of calculator, which might not be void of error(s).

2.4 Current Procedure in NICON Insurance Corporation

Before going into the details of the operation of NICON Insurance Corporation, it is pertinent to take a look at the corporation itself.

The corporation was established under the National Insurance Corporation of Nigeria Act (No. 22) of 1969, as a commercial enterprises. The corporation is empowered by its enabling law to

- (a) Insure any property of the Government of the Federation or of the Government of any State in the Federation or of any Statutory Corporation.
- (b) Insure any property to which the Federal or a State Government or any Statutory Corporation has any interest.
- (c) Reinsure with any Insurance Company, Reinsurance Company any risk undertaken by it and for that purpose to enter into reinsurance contracts.
- (d) Act as insurance agent or insurance brokers and
- (e) Assist in organising training schemes for the employees of any registered insurer.

The establishment of the corporation had a catalytic effect on the development of insurance business in Nigeria. NICON Insurance Corporation, thus underwrite all the approved classes of insurance as stipulated in the Insurance Act No. 2 of 1997 including Motor Insurance, which is the subject matter of this research work.

The corporation is divided into Departments for easy of administration and effectiveness, and the Motor Insurance Department is one of the single largest department of the corporation. The Motor Insurance Department underwrite the four types of covers discussed in 2.2 above.

Procedure

Act Cover – This is the least cover provided and the insureds are discouraged from obtaining it and at present the company is not underwriting such risk although it attracts a flat premium of N350.00

Third Party Cover – Often a flat premium of N500.00 is charged to the insureds for private cars and the amount for other brands varies.

Third Party, Fire and Theft – The premium computation here is 50% of 10% of the sum insured or value of the vehicle.

Note that, all the three classes discussed above do not attract NCD.

Comprehensive Cover – This is the most complex in terms of premium computation and coverage. The calculation is often based on 10% of the sum insured or value. What makes it complex therefore is the attraction of NCD depending on the number of years insured without claims experienced.

The NICON Insurance Corporation allows discount to the deserving insureds. According to **Diacon & Carter (1984)**, the basic premium charged is usually reduced with each year that passes without claim being made. The insured is allowed 30%, 40%, 50% and 60% for the first, second, third and fourth year respectively.

This view was upheld by **Adeyemi (1992)** and **Freeman & Pellatt (1986)** except for the fact that the current rating in the insurance industry in Nigeria is as follows:

The preceding year	20%
The preceding two consecutive years	25%
The preceding three consecutive years	33.3%
The preceding four consecutive years	40%
The preceding five consecutive years	50%

It should be noted here that the maximum NCD that can be granted on private motor car comprehensive policy is 50%, commercial vehicle enjoy only 15% NCD and while Motor Cycle, Motor Trade – road risks, Motor Trade – premises risks and Contingencies has no discount from the premiums charged. In addition, the Act Cover, Third Party Cover Only and Third Party, Fire and Theft attract no discount whatsoever.

Also worthy of note is the fact that the amount of NCD enjoyed might either be withdrawn or reduced depending on the extent of the loss or claims made by the insured, hence the need for proper records.

Another form of discount that may be allowed by the insurer is referred to as *Fleet Discount*. This is often given to insured that has more than one vehicle on the same policy with the same insurer. The insurer may allow a further discount of 5% because of reduction in administrative expenses.

Commission – Insurance intermediaries, that is, the Agents and Brokers who introduce business to the insurer are usually paid a form of remuneration often referred to as commission or brokerage, which is usually calculated as a

make use of computers and thus afford them the opportunity to make quantitative methods of risk and loss measurement both feasible and practical from a cost standpoint.

Thus, a computerised motor insurance will allow loss data to be collected, stored and analysed better than before, both for risk management and insurance management decision.

Diacon and Carter (1982) revealed that some insurance companies in United Kingdom commence the use of computer to issue policy forms and generally all insurers uses the computers for their letter, memos etc. but not much work has being done on programming the activities of the motor insurance premium.

2.6 ADVANTAGES OF THE PROPOSED SYSTEM

- (a) A computerised facility offers the advantage of handling high-volume data and large-scale application more efficiently and at a relatively lower cost than manual or other system.
- (b) More specifically it will eliminate the delay experienced by the insured.
- (c) Additional feature include attractive, easy to read documents are more effective than the traditional printing of the past. By using the various tools on desktop publishing brochures, manuals, advertising copy, quarterly reports, news letters and a variety of publications based on computers stored business information by using this tools, professional –

quality publications can be developed and controlled from the company rather than sending them out to professional designers and typesetters. This gives company more control over their publications and is much less expensive than methods of the past.

- (d) The ability to obtain information previously unavailable and effective management decision.
- (e) The receipt of information on a timely basis.
- (f) Improvement in operations /image and customers services.
- (g) The ability to perform calculations not possible before.
- (h) Reduction in clerical activity.
- (i) Maintenance of competition position among insurance companies.

CHAPTER THREE

SYSTEM ANALYSIS AND DESIGN

3.1 INTRODUCTION

The researcher has sought to present the current status of the insurance industry and the use of computers in as broad a manner as possible. This was done through discussion with knowledgeable individuals and the evaluation of published information.

Projection into the future was made, based on the information and has been derived by consideration of analogues situation, case study and analytical discussion. This approach is in consonance with the research methods of collection of data that is interview and observation.

Before a system is computerised there are number of things to be considered before arriving at a decision. The complete cycle of activities required to change an information system whether manual or mechanical, wholly or partially computerised may be conveniently subdivided into phases.

Thus, this chapter describes the method of data collection, the process of efficient computer System Analysis and System Design, the role of System Analyst and the Planning process are described for computerisation of Motor Insurance Premium.

3.2 RESEARCH METHOD

The collection of facts is concerned with the examination of existing operation, procedure and systems in order to understand how they work, the elements that comprise them, the resources they use, their effectiveness, problems areas and the cost of operating them. The method of fact finding used are as follows:

Observation – One of the ways of collecting data is through careful observations. Direct observation of how procedures are carried out was used by the researcher. The researchers wealth of experience in the insurance and full understanding of not only the objectives of the system tasks but also the detailed methods of carrying out those tasks is of great advantage.

Records Inspection/Documents – Closely related to the above, is record inspections which is the study of systems through analysis of documents such as organisational charts, procedure manuals, statistics and collecting samples of all documents used in NICON Insurance Corporation.

Interview – Is a very common method of fact-finding, which involves face-to-face questions and answers with the Motor Insurance Manager and other clerical staffs. Sample of the questions asked and responses are as follows:

- (i) How do you think a computer might benefit you?
 - Reduce the time I spend processing papers.
 - Reduce errors.
 - Make my jobs more interesting.

- Make it easier to find and use information and files.
 - I don't know specifically how, but I feel it would help.
- (ii) What do you think, the major problem with a computer would be?
- It would make things more complicated.
 - It would make more mistakes "Computer error".
 - It would be harder to use.
 - It would take more of my time.
 - It would loss information.
 - It would make our job boring.
 - I don't know specifically, what, but I feel there will be problem.
- (iii) If we use a computer here, the company will not need me any more?
- Strongly agree because I don't have knowledge of computer.
 - Agree – computer reduce human efforts
 - Neutral – because I am computer literate.
 - Disagree – because I am a professional, they need my service with or without computer
 - Strongly disagree – it will only call for retraining.

The above questions helps to know attitudes of the different users and their responses to a new system.

3.3 SYSTEM ANALYSIS

The analysis of existing system is usually a response to a user's request concerning a problem(s) that bothersome enough to warrant investigation.

It involves breaking the system into its major components for the purpose of pinpointing problems areas that need improvement or elimination. In other words, it is an examination of the existing system to determine what must be accomplished and the best method of accomplishing the necessary operations.

The system analysis involves the description of process of collecting analysing facts in respect of existing operations procedures and systems in order to obtain a full appreciation of the situation prevailing so that an effective computerised system may be designed and implemented, if proved feasible. In other words system analysis has as its objective the design of an effective computerised procedures, which will create benefits in excess of those possible by manual means. Thus, is the first task of a system analyst in system development cycle is to accurately define problem.

3.4 PROBLEMS DEFINITION AND IDENTIFICATION

Information gathered about the existing system by the examination of records and documents, interview and observations of the working procedures reveals the following problems:

- (a) Inaccuracy in Premium Computation – as observed the major problem has being with manual computation of premium, which is characterised with error, both at the inception of the insurance contract and at renewal.
- (b) Documentation of Transaction – policy numbers has to be allocated to each and every insured. The problems discovered include duplication of policy number or allocating the same policy number to more than one insured. Thus recording, entering and documentations in wrong files.
- (c) Storage and Retrieval Problems – from the above and because of large numbers of insured, the storage of files becomes difficult exercise due to shortage of space and when files are haphazardly store retrieval becomes a problem.
- (d) Delay – the direct consequence of storage and retrieval of documents is sufficient to cause delay, talk less of the time spent in manual computation, which leads to customers' dissatisfaction.
- (e) Lack of information – by the very nature of insurance, it involves large number in a pool for it to work. These large numbers of insuring public has made assessing statistics and collating facts difficult.
- (f) Paper Work – the contract of insurance involves too many of papers as observed, an outbreak of fire can easily destroy this papers which are not often back-up for lack of space and storage facilities. Hence the need for improvement, which calls for the next phase.

3.5 FEASIBILITY STUDY OF THE PROPOSED SYSTEM

Feasibility study has to do with the study of potential solutions to the problems discovered. In other words, it is a computerised solutions to the problems uncovered by the initial analysis.

To achieve its set objectives, the researcher is of the opinion that the user of the programme should be involved in the development of the new system because nothing could be more important to the success of a system order than user involvement. The finest system in the world will not suffice if users do not perceive it as useful. With the involvement of the Motor Insurance Manager and clerks, the researcher was able to gather a great deal of information, produced by the systematic study of NICON Insurance Corporation's data handling system. These data are valuable for the researcher in the solutions analysis stage.

The computerised Motor Insurance Premium will thus handle all information necessary for processing each clients chosen cover under Motor Insurance, calculate the premium for both new client and those renewing their existing policy and generate all required report for management use.

The system take cognisance of the cover provided by the policy and the terms of the policy, along with the expiring date as may be desired by the insured. All the insured whose policy lapse are then informed through renewal notice report. It goes further to produce various reports such as the list of insured, list of all renewal, premium payments, etc.

Therefore the overall objectives of a computerised system are as follows:

- (a) To develop a system that will replace the manual method of processing data and information.
- (b) It will cater for the storing of all files in respect of all insured.
- (c) The system should be able to print out all necessary report for management decision making.
- (d) It system has an on-line inquiries through viewing.

3.6 Benefits of a Computerised Motor Insurance Premium

The present day computers give us new capabilities and new ways to accomplish our daily tasks. To be relevant in today's business dispensation therefore computers and computer applications are essential consideration when a company attempts to improve efficiency in the workplace.

A computerised operation in any company can help invigorate the efficiency of their business in at least the following ways:

- (a) Less Time to Perform a Task – When business task are computerised, it will often require less time to perform them. In other words analysing them to find a way to computerise the entire task can often reduce the time spent on many business tasks. The computerisation of standard procedures (i.e. Motor Insurance Premium) that are repeated many times each day can significantly speed up day-to-day operations.

(b) Reduce Errors – The computerisation of Motor Insurance Premium and its connected operations can reduce errors, because computers can be used to accurately manage information, the computerisation of information, storage and retrieval operations can help to reduce many of the costly mistakes that are inevitable when humans must manage information by hands.

(c) Computers can work around the clock – One major characteristics of the computer is that it is tireless. Thus the use of computer will eliminate or reduce stress on the staff involves in the computation of Motor Insurance Premium.

(d) Information Management – Computers can help manage the exploding need for business information. As the business of insurance is growing fast, with greater awareness of the functions of Motor Insurance in mitigating losses arising from accidental injury, death and property damage, there is the need to manage large amounts of information about customers, about the status of billed account or premium as the present study and account receivable from client or brokers/agents. The computer thus provides a fast accurate way to deal with the explosion of data.

3.7 COST OF THE PROPOSED SYSTEM

For an effective computerisation of motor insurance premium, obviously expenditure must be incurred. The cost of operating the proposed system could be divided into two: 1. Developing cost and 2. Operating cost.

1. DEVELOPING COST

(a) Computer Hardware with the following configurations:

(Pentium IV, 64 Bit, 20GB Hard Disk, CD-ROM

drive, Monitor @ N100,000

(b) UPS 250 volts @ N 30,000

(c) Laser jet Printer Hp 1300 @ N 60,000

(d) Installation cost @ N 20,000

(e) Training 3 personnel for three months @ N 30,000

(f) Miscellaneous expenses @ N 10,000

Sub - Total = N200,000

2. OPERATING COST

(a) Programme maintenance (1year) @ N50,000

(b) One unit of Air-Conditioner @ N50,000

(c) Stationary @N25,000

(d) Utilities @ N15,000

(e) Miscellaneous @ N10,000

Sub - Total = N150,000

CHAPTER FOUR

PROGRAM IMPLEMENTATION

4.1 INTRODUCTION

The implementation phase involves, training and educating personnel, final testing of the system as a whole, converting to the new system (i.e. change over) and maintaining the system.

4.2 PROGRAMMING LANGUAGE

Many of the things that can be done with Visual Basic really aren't very basic at all. The Visual Basic language is quite powerful — if one can imagine a programming task, it can probably be accomplished using Visual Basic.

Microsoft Visual Basic, the fastest and easiest way to create applications for Microsoft Windows. Visual Basic provides a complete set of tools to simplify rapid application development.

So what is Visual Basic? The "Visual" part refers to the method used to create the graphical user interface (GUI). Rather than writing numerous lines of code to describe the appearance and location of interface elements, you simply add pre-built objects into place on screen.

The "Basic" part refers to the BASIC (Beginners All-Purpose Symbolic Instruction Code) language, a language used by more programmers than any

other language in the history of computing. Visual Basic has evolved from the original BASIC language and now contains several hundred statements, functions, and keywords, many of which relate directly to the Windows GUI. Beginners can create useful applications by learning just a few of the keywords, yet the power of the language allows professionals to accomplish anything that can be accomplished using any other Windows programming language.

The Visual Basic programming language is not unique to Visual Basic. The Visual Basic programming system, Applications Edition included in Microsoft Excel, Microsoft Access, and many other Windows applications uses the same language. The Visual Basic Scripting Edition (VBScript) is a widely used scripting language and a subset of the Visual Basic language.

- Data access features allow you to create databases, front-end applications, and scalable server-side components for most popular database formats, including Microsoft SQL Server and other enterprise-level databases.
- ActiveX™ technologies allow you to use the functionality provided by other applications, such as Microsoft Word, word processor, Microsoft Excel spreadsheet, and other Windows applications. You can even automate applications and objects created using the Professional or Enterprise editions of Visual Basic.

- Internet capabilities make it easy to provide access to documents and applications across the Internet or intranet from within your application, or to create Internet server applications.
- Your finished application is a true .exe file that uses a Visual Basic Virtual Machine that you can freely distribute.

Visual Basic Editions

Visual Basic is available in three versions, each geared to meet a specific set of development requirements.

- The Visual Basic Learning edition allows programmers to easily create powerful applications for Microsoft Windows and Windows NT[®]. It includes all intrinsic controls, plus grid, tab, and data-bound controls. Documentation provided with this edition includes the Learn VB Now CD plus the Microsoft Developer Network (MSDN[™]) Library CDs containing full online documentation.
- The Professional edition provides computer professionals with a full-featured set of tools for developing solutions for others. It includes all the features of the Learning edition, plus additional ActiveX controls, the Internet Information Server Application Designer, integrated Visual Database Tools and Data Environment, Active Data Objects, and the Dynamic HTML Page Designer. Documentation provided with the

Professional edition includes the Visual Studio Professional Features book plus Microsoft Developer Network CDs containing full online documentation.

- The Enterprise edition allows professionals to create robust distributed applications in a team setting. It includes all the features of the Professional edition, plus Back Office tools such as SQL Server, Microsoft Transaction Server, Internet Information Server, Visual SourceSafe, SNA Server, and more. Printed documentation provided with the Enterprise edition includes the Visual Studio Enterprise Features book plus Microsoft Developer Network CDs containing full online documentation.

4.3 SYSTEM CONVERSION (CHANGE OVER)

Conversion refers to the changing of activities related to the preparation, processing and reporting of information in a system context. Conversion includes replacing one piece of hardware (e.g. typewriter) with another, one method of processing (manual) with another method or one procedure (manual or electronic) with another procedure. Once the system testing has been completed the change over procedures are:

- (a) Once – Off Change: Direct implementation of the new system on the basis that the old system is inoperative or obsolete or that the new is significantly different in structure and design, in this case, the old system

is discontinued and replaced immediately by the system. The main problem with the approach is that the old system would not be available as back – up if operating difficulties occurs with the new system. It also prevents the old system's result being used as a check on those produced by the new system.

(b) Parallel Running: With this method the old and new systems are run concurrently for a set period of time. This means that for that period of time two sets of results are available for cross checking and it offers the user and staff exposure to the manner in which the new system produces the outputs. Once the new system is successful, the current system is discontinued. The problem with this method is obviously the cost of operating both systems simultaneously.

(c) Phased Change Over: The third method of system conversion handles the installation of a new system on a piecemeal basis. This is very similar to the parallel running except that in the beginning only a certain proportion of the source data is run in parallel with the old system. In other words, the whole system is initially installed in one organisational facility, if proved successful there, it is then installed in the remaining facilities. The primary advantages of this method is that errors are localised and corrected where they can do limited damage. One drawback is that it could take long time before the system is installed throughout the organisation.

(d) Pilot Running: With this method the new system is employed to reproof the same information as the original system. Check information is therefore again available and as soon as the new system has been proven, the old system can be abandoned.

Of all the approaches discussed above, the Parallel Running and phased changes over is recommended, because of the inherited advantages.

4.4 SYSTEM TESTING

Before any new system can be introduced, the data processing routines must obviously be tested thoroughly in order to eliminate as many errors as possible. This is normally carried out in two stages. First, individual data are tested, and secondly, the complete suite is tested.

Normally artificial data is used for initial task but live data for later testing. The main aspects of the programme testing would relate to feasibility and validation of tests coding systems, field sizes, capacity checks, addressing systems program logic contingency testing and interfacing with other programmers.

In addition to program testing, there would also be need for general procedure testing in order to ensure that the whole system is co-ordinated and integrated.

4.5 SYSTEM MAINTENANCE

Once the system has been fully installed, that is by no means the end of the computerised system. Systems require continual monitoring and reappraisal and need to be regularly maintained, if they are to be kept efficient and up to date.

Soon after the system is fully operational there will need to be a preliminary maintenance check investigating matters such as:

- (a) Processing Speed – That is a check to see whether the time recruited to process source data to user information is in line with original estimates.
- (b) Storage Capacity – That is a check to ensure that original planned capacities are not being exceeded or that excessive under-utilisation is not occurring.
- (c) Errors and Controls – Although one would expect errors to be highest at this phase of the system operations, they do need to be carefully monitored to ensure that they are not excessive in the light of the way in which the output be used.
- (d) More cost benefits analysis would need to be carried out to ensure that the costs of implementing and running the system are justified on the basis of the improved information provided to the users.

This becomes relevant because a newly installed system becomes an asset to the organisation. The system must be protected to ensure continued functioning. The purpose of system maintenance therefore is to detect and

correct deviations in the system or modify aspects of it in response to changes in the organisation or the environment. This activity ranges from emergency maintenance (normally caused by incomplete testing) to normal maintenance such as correction of logical errors in the computer program(s) or the addition of new functions to be handled by the system.

4.6 STAFF TRAINING AND EDUCATION

People are the key elements in every system. They are involved in the design, operations and maintenance of the system. Thus, for successful system implementation, those who are involved in and affected by the system must be made aware of (educated in) the extent of their responsibilities, to the new system. It is the role of the system analyst to plan and conduct the necessary education and training of personnel. This can be achieved by organising seminars, tutorials and on the job training.

In addition, staffs will have to be retrained to deal with new procedures and operating arrangements and will also have to be convinced that the revised system is more effective than its predecessor. The training would be assisted by the development of detailed manuals and user staff briefing.

4.7 INPUT AND OUTPUT OF THE PROPOSED SYSTEM

INPUT: - The term input is the process of entering data into a system. The input specification will serve as an interaction between the systems users and the system. Input design should be:

- (a) User friendly
- (b) Accept only validated data entry
- (c) The data entries should not be too ambiguous
- (d) The data entries should be cost effective

OUTPUT: - This is the total calculation of premium on a yearly basis of motor insurance covers by the insured.

PRIVATE CAR (COMPREHENSIVE COVER)

New Business (First Year Of Insurance)

Sum Insured	=	N300,000
Rate of Premium	=	10%
Gross Premium	=	N30,000
Less 10% Agency Commission	=	N 3,000
Net Premium	=	N27,000

1st Preceding Year (1st renewal period)

Sum Insured	=	N300,000
Rate of Premium	=	10%
Gross Premium	=	N30,000
Less 20% NCD	=	N 6,000
Gross Renewal Premium	=	N24,000
Less 10% Agency Commission	=	N 2,400
Net Premium	=	N21,600

2ND Preceding Year (2nd renewal period)

Sum Insured	=	N300,000
Rate of Premium	=	10%
Gross Premium	=	N30,000
Less 25% NCD	=	N 7,500
Gross Renewal Premium	=	N22,500
Less 10% Agency Commission	=	N 2,250
Net Premium	=	N20,250

3rd Preceding Year (3rd renewal period)

Sum Insured	=	N300,000
Rate of Premium	=	10%
Gross Premium	=	N30,000
Less 33.3% NCD	=	N 9,900
Gross Renewal Premium	=	N20,100
Less 10% Agency Commission	=	N 2,010
Net Premium	=	N18,090

4th Preceding Year (4th renewal period)

Sum Insured	=	N300,000
Rate of Premium	=	10%
Gross Premium	=	N30,000
Less 40% NCD	=	N12,000
Gross Renewal Premium	=	N18,000
Less 10% Agency Commission	=	N 1,800
Net Premium	=	N16,200

5th Preceding Year (5th renewal period)

Sum Insured	=	N300,000
Rate of Premium	=	10%
Gross Premium	=	N30,000
Less 50% NCD	=	N15,000
Gross Renewal Premium	=	N15,000
Less 10% Agency Commission	=	N 1,500
Net Premium	=	N13,500

Note: From the 6th Renewal Period and above no additional NCD. 50% is the maximum NCD to be allowed.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 INTRODUCTION

The continued substitution of computer-based system for renewal procedures has in modern days become a worldwide affair. This is due to its relevance in virtually all aspects of human endeavour. This interest is intensified by the capability of computer in performing a given set of procedures with the necessary accuracy.

It could be agreed upon that a computer based procedure needed to be designed in a way to achieve the benefit of computer usage in terms of speed, full automation of proceedings, avoidance of constant problems, ensure data security.

It is in recognition of these facts this section that newly designed computerised motor insurance premium has to be properly documented with the limitation clearly stated.

This section also provides a summary of this research work, with conclusion drawing from findings and recommendations suggested for an improved motor insurance business in Nigerian insurance industry.

5.2 DOCUMENTATION

At this stage of program development, the programmer develops written information about how each aspect of the program works.

There are two types of computer-related documentation:

- (a) For Computer Users - the set of manuals that comes with applications software and other hardware and software components is known as user documentation.
- (b) For Computer Programmers - information about the design and function of computer programs is known as program documentation.

Programme documentation serves as a guide to the program's logic, not only for the original programmer, but for other programmers who may have to work with the program code later. This is especially true for programs which may need to be maintained, updated periodically by other programmers.

- ✓ The program developed is to calculate motor Insurance premium for vehicle insured on comprehensive insurance basis.
- ✓ It calculates the Gross Premium, Renewal Premium, No Claims Discount (NCD), Commission due to Agents/ Brokers, and Net Premium due from the client.
- ✓ The Package used is the Visual basic.

5.3 LIMITATION

The limitation of this program is as follows

- (a) The inability to use it in calculating the varied classes of motor insurance (that is commercial vehicle insurance on buses, cars, trucks, trailers, caterpillars, bulldozers, cranes etc) even within the private

motor car there are vehicles with special features which may warrant premium loading or additional premium which were not incorporated in this programme with the varied premium rates and commission due.

- (b) Secondly, the inability to use this a single package to take care of all policy of insurance and renewal endorsement due to be issued to the clients as the case may be.

Despite this limitation, an in depth research might prove this limitation invalid given the appropriate time and financial resources with which to carry the study and in a conducive environment.

5.4 SUMMARY

The hardware and software revolution has made computers affordable and promises to make them even more cheaper. Until the last few years, computers were sufficiently expensive that only organisations, often only large organisations could afford to own or use them. The remarkable decrease in the cost of computer systems makes it possible for individuals to own their own computer systems or for organisations to own so many powerful system that individual members can act as if they owned one.

While the future impact of computers on individuals may be revolutionary, their impact on large organisations is more likely to be an evolutionary one, mainly because large organisations have been the traditional users of computers.

An evolutionary development in which computer systems gradually automate more and more of the business functions currently performed by clerical personnel. Thus the research project explores the role of the computer in business and industry with particular reference to Insurance Industry with a view to computerise its operation especially Motor Insurance Premium. It discusses the growth of computerised business systems and the resultant changes in how we carryout our jobs.

This project also introduced the concept of Methodology for Systems Analysis and reviewed a range of techniques that may be applied during systems analysis. Under the system analysis and design, it has been impossible to explore all proposed strategies for the phases, but key approaches and concepts have been introduced from which readers may, if they chose, move on to a more advance study of the topic to computerise the entire premium of the insurance industry.

This system analysis is the process of determining what the users needs and designing a computer system to meet those requirements. The task of a system analyst in a computerised system is to analyse the way in which an existing system functions, to recognise and define problems and malfunctions, to design and specify a new system, making the most efficient and economic use of available hardware and software facilities and finally to implement the system and ensure that it is maintained and updated as necessary.

5.5 CONCLUSION

When computers are introduced into organisations because of the benefits they can provide, it usually affects the work of staff within the organisation. Some jobs are changed, some may be created and some may be lost. This creates a demand for training and retraining. Any job loss to computerisation can give rise to alarm, particularly at a time of high unemployment. However such job "losses" probably signify yet another shift in the work of the general labour force, as has happened many times in the past.

In the rapidly changing environment, computers truly offer the insurance manager a means by which he can respond dynamically to the challenge of making fast decisions correctly. This use of computer in solving problem has forced man to be more scientific in thinking.

There is little doubt that the business functions of large and medium-sized insurance company in Nigeria will be significantly changed by further growth in the use of computers.

The jobs of the great majority of clerical technical, professional and managerial workers will be changed to some extent and some of the jobs will be transformed beyond recognition.

For some or all insurance computers that are computerised, overall productivity may be doubled or tripled by the impact of data processing. The effects on the insurance industries and employees alike are apt to show up as

the ability to handle a steadily increasing load or work without a corresponding rise that the insurance companies render to the insuring public and nation.

5.6 RECOMMENDATION

Despite the invaluable advantages that can be derived from the computerised system the following suggestions are made.

It is important that computer hardware, software and databases remain secure. Considerable efforts and cost are directed toward the construction of computer systems and databases. All these efforts can be sabotaged if hardware is stolen, databases are corrupted or some other mishap afflicts the system. It is therefore important to attend to the security of computer system and to develop a security policy.

All security measures must, by their nature pose a barrier to access. It is important that these barriers do not become too intrusive and equally important that they cannot be sidestepped or forgotten.

Staff training and retraining is very important for efficiency and effectiveness. The aim of training is to give staff the specific skills required in their use of the computerised system. Training should contain as much hands-on work as possible.

It is also suggested that the organisation should establish procedures for system amendment. Each requested amendment must go through established

channels and be fully discussed before implemented. all implications must be fully explored and discussed.

On the other hand, from a security and safety standpoint, computers bring a whole new set of problems to an organisation. The computer room is a concentrated area with extremely valuable equipment and with records that are vital to the organisation. Thus,

- (a) New "Halon" and Co2 fire extinguishing systems are needed.
- (b) Sabotage and vandalism must be prevented.
- (c) Tape erasure problems avoided.
- (d) Employee fraud and espionage by competitors checked and
- (e) Loss of electric power to the computers anticipated with back-up alternatives power sources.

Lastly, it is also suggested that the Insurance Company should obtain an Electronic Data Processing Insurance (EDPI). The EDP Insurance has become increasing important with the widespread of computers. Under this insurance, "all risks" coverage is provided on a variety of EDP exposures, including the computer hardware; tapes, discs and cards on which information has been stored, and valuable papers and records, including documentations materials or information that has not been stored on tapes, discs or cards. The coverage of the of the tapes, discs and cards and the valuable papers or records covers the cost of research and other expenses required to reproduce this information. Other expenses that can be insured include 'extra expenses incurred to hand

process information until the computer is restored to normal, to rent substitute equipment, or to speed up repairs and business interruption caused by damage or destruction of the EDP equipment.

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WELCOME

ESC X

COMPUTERISATION OF MOTOR INSURANCE PREMIUM
 (A CASE STUDY OF NICON INSURANCE CO. (INDIA) LTD.)



PREPARED BY

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PGD/MIS/2007/2002/102A

MATHEMATICS AND COMPUTER SCIENCE

SCHOOL OF SCIENCE AND SCIENCE EDUCATION

FEDERAL UNIVERSITY OF TECHNOLOGY MINNA

CLICK ME TO CONTINUE...

PoNo	IsName	Addr	Occp	YehRn	Age	Cube
m/111000WQ	Fola Kunmi Fella	F.U.T. Minna	Computer Prog.	AB2345DB	21	2000
m/112000WQ	Seni Goddy	F.U.T. Minna	Computer Prog.	AB2345DE	25	2000
m/113000WQ	Seni Goddy	F.U.T. Minna	Computer ENG.	AB2345DM	25	2000
m/2300001	Opaleye Moses Ademola	Federal Ply Bida	Civil Servant	AA258KSB	35	2000

New Record [X]

Enter Clients Policy Number...

OK

Cancel

IDNO	PrRate	NetPro	YCAR			
001	30000	17000	1			
002	30000	15000	2			
003	30000	10250	3			
013	30000	20100	30000	2010	18090	4
014	30000	18000	30000	1800	16200	5
015	30000	15000	30000	1500	13500	6

m/111000WQ

Format Output

- All Records
- Individual Record
- Print

	IsName	Addr	Occp	VehIn	Age	Cybc
	Fola Kunmi Fella	F.U.T. Minna	Computer Prog.	AB2345DB	21	2000
	Seni Goddy	F.U.T. Minna	Computer Prog.	AB2345DE	25	2000
m/113000WQ	Seni Goddy	F.U.T. Minna	Computer ENG.	AB2345DM	25	2000
m/23000D1	Opalaye Moses Ademol	Federal Ply Bida	Civil Servant	AA258KSB	35	2000
*						

IDNO	PrRate	RenWl	GrossPre	LPerCmss	NetPre	year
001	30000	0	30000	3000	27000	1
002	30000	24000	30000	2400	21600	2
003	30000	22500	30000	2250	20250	3
013	30000	20100	30000	2010	18090	4
014	30000	18000	30000	1800	16200	5
015	30000	15000	30000	1500	13500	6
*						

Client Name :- Fola Kunmi Fella
 Policy Number:-m/111000WQ
 Address: F.U.T. Minna
 Occupation :- Computer Prog. Age...:21
 Vehicle Number:- AB2345DB Cubic Capacity 2000
 Use Of Car :- PRIVATE
 Make...: DEAWOO
 Period Commence: 1/2/03 Period Expired 31/12/06 Renewal Date...: 1/12/03
 Sum Insured...:300000
 Year:1
 Premium Rate:- 10% of Insured value..

- Add New Record
- Save
- Process
- Close

IsName	Addr	Occp	VehIn	Age	Cubc
Fola Kunmi Fella	F.U.T. Minna	Computer Prog.	AB2345DB	21	2000
Seni Goddy	F.U.T. Minna	Computer Prog.	AB2345DE	25	2000
Seni Goddy	F.U.T. Minna	Computer ENG.	AB2345DM	25	2000
Dpaley Moses Ademol	Federal Ply Bida	Civil Servant	AA250KSB	35	2000

IDNO	PiRate	RenWl	GrossPre	LPriCmss	NetPre	year
001	30000	0	30000	3000	27000	1
002	30000	24000	30000	2400	21600	2
003	30000	22500	30000	2250	20250	3
013	30000	20100	30000	2010	18090	4
014	30000	18000	30000	1800	16200	5
015	30000	15000	30000	1500	13500	6

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Occupation :- Computer Prog. Age..:21
Vehicle Number:- AB2345DB Cubic Capacity 2000
Use Of Car :- PRIVATE
Make..: DEAWOO
Period Commence: 1/2/03 Period Expired 31/12/06 Renewal Date...: 1/12/03
Sum Insured...:300000
Year:1
Premium Rate:- 10% of Insured value..

```

Dim NCD As Double
Private Sub mnuClose_Click()
    Unload Me
    DataEnvironment1.rsCommand1.Close
End Sub

Private Sub mnuInv_Click()
    DataEnvironment1.rsCommand1.MoveFirst
    StrInp = InputBox("Enter Clients Policy Number...", "New Record")

    For k = 1 To DataEnvironment1.rsCommand1.RecordCount
        If StrInp = txtPolNo(0).Text Then
            RT.SelText = "Client Name :- " & txtIsName.Text & vbCrLf
            RT.SelText = "Policy Number:-" & txtPolNo(0) & vbCrLf
            RT.SelText = "Address: " & txtAddr & vbTab & vbCrLf
            RT.SelText = "Occupation : - " & txtOccp & vbTab & vbTab & "Age..." &
            txtAge.Text & vbCrLf

            RT.SelText = "Vehicle Number:- " & txtVehRn & vbTab & "Cubic Capacity " &
            txtCubc & vbCrLf
            RT.SelText = "Use Of Car :- " & txtUseCar & vbCrLf
            RT.SelText = "Make..: " & txtMke & vbCrLf
            RT.SelText = String(70, "-") & vbCrLf
            RT.SelText = vbCrLf
            RT.SelText = "Period Commence: " & txtPComce & vbTab & "Period Expired "
            & txtPExp & vbTab
            RT.SelText = "Renewal Date...: " & txtReDate & vbCrLf
            RT.SelText = "Sum Insured..:" & txtSmlsVal & vbTab & vbCrLf
            RT.SelText = vbTab & "Commission to Agent:" & txtComToAgent & vbTab &
            vbTab & "Types of Insurance " & txtTylsuCover & vbCrLf
            RT.SelText = vbTab & "Sum insured Value: " & txtSmlsVal & vbCrLf &
            vbCrLf
            GoTo mi
        Else
            DataEnvironment1.rsCommand1.MoveNext
            If DataEnvironment1.rsCommand1.EOF Then
                DataEnvironment1.rsCommand1.MoveLast
            End If
        End If
    Next
    MsgBox "Record not found please", vbOKOnly + vbInformation, "Message"
Exit Sub

```



```
RT.SelText = "Net Premium:-" & Format(Val(txtNetPre.Text), "###,###.#0") &  
vbCrLf
```

```
RT.SelText = "_____ " & vbCrLf
```

```
DataEnvironment1.rsCommand3.MoveNext  
If DataEnvironment1.rsCommand3.EOF Then  
    DataEnvironment1.rsCommand3.MoveLast  
End If  
Else  
    DataEnvironment1.rsCommand3.MoveNext  
    If DataEnvironment1.rsCommand3.EOF Then  
        DataEnvironment1.rsCommand3.MoveLast  
    End If  
End If
```

```
Next
```

```
End Sub
```

```
Private Sub mnunew_Click()  
Dim StrInp As String
```

```
frmPro.Caption = "ADDING RECORD MODE"  
frmPro.BackColor = vbBlue  
DataGrid1.Caption = "ADDING RECORD MODE"
```

```
StrInp = InputBox("Enter New Record(Policy Number)...", "New Record")
```

```
If StrInp = "" Or StrInp = Null Then  
    MsgBox "You must input new Policy Number ", vbCritical + vbOKOnly, "Error  
in input"  
    Unload Me  
    DataEnvironment1.rsCommand1.Close  
    Exit Sub  
Else  
    DataEnvironment1.rsCommand1.AddNew  
    txtPolNo(0).Text = StrInp  
End If
```

End Sub

Private Sub mnuPpp_Click()

Dim SmlVal As Single

Dim inpPoly As String

Dim StrRew As Single

DataEnvironment1.rsCommand1.MoveFirst

inpPoly = InputBox("Input Policy Number", "Input")

For k = 1 To DataEnvironment1.rsCommand1.RecordCount

If inpPoly = txtPolNo(0).Text Then

If((txtUseCar = "PRIVATE") And (txtTyIsuCover.Text =
"COMPREHENSIVE")) Then

DataEnvironment1.rsCommand3.MoveFirst

For m = 1 To DataEnvironment1.rsCommand3.RecordCount

If((inpPoly = txtPolNo(1).Text) And (Val(txtyear.Text)) = 1) Then

txtGrossPre.Text = (Val(txtSmlsVal.Text)) * 0.1

txtNetPre.Text = Val(txtGrossPre.Text) - (Val(txtGrossPre.Text) *

0.1)

txtLPerCmss.Text = Val(txtGrossPre.Text) * 0.1

txtPrRate.Text = Val(txtSmlsVal.Text) * 0.1

End If

If((inpPoly = txtPolNo(1).Text) And (Val(txtyear.Text)) = 2) Then

txtPrRate.Text = Val(txtSmlsVal.Text) * 0.1

txtGrossPre.Text = (Val(txtSmlsVal.Text)) * 0.1

'txtLPerCmss.Text = Val(txtGrossPre.Text) * 0.1

'txtNetPre.Text = Val(txtLPerCmss.Text) -

Val(txtLPerCmss.Text) * 0.1

txtRenWl.Text = Val(txtGrossPre.Text) - (Val(txtGrossPre.Text)

* 0.2)

txtLPerCmss.Text = Val(txtRenWl.Text) * 0.1

txtNetPre.Text = Val(txtRenWl.Text) - Val(txtLPerCmss.Text)

End If

If((inpPoly = txtPolNo(1).Text) And (Val(txtyear.Text)) = 3) Then

txtPrRate.Text = Val(txtSmlsVal.Text) * 0.1

txtGrossPre.Text = (Val(txtSmlsVal.Text)) * 0.1

'txtLPerCmss.Text = Val(txtGrossPre.Text) * 0.1

```
txtNetPre.Text = Val(txtLPerCmss.Text) -  
Val(txtLPerCmss.Text) * 0.1  
txtRenWl.Text = Val(txtGrossPre.Text) - (Val(txtGrossPre.Text)  
* 0.25)
```

```
txtLPerCmss.Text = Val(txtRenWl.Text) * 0.1  
txtNetPre.Text = Val(txtRenWl.Text) - Val(txtLPerCmss.Text)
```

End If

```
If ((inpPoly = txtPolNo(1).Text) And (Val(txtyear.Text)) = 4) Then
```

```
txtPrRate.Text = Val(txtSmlsVal.Text) * 0.1  
txtGrossPre.Text = (Val((txtSmlsVal.Text)) * 0.1)  
txtLPerCmss.Text = Val(txtGrossPre.Text) * 0.1  
txtNetPre.Text = Val(txtLPerCmss.Text) -  
Val(txtLPerCmss.Text) * 0.1  
txtRenWl.Text = Val(txtGrossPre.Text) -  
(Val(txtGrossPre.Text) * 0.33)  
txtLPerCmss.Text = Val(txtRenWl.Text) * 0.1  
txtNetPre.Text = Val(txtRenWl.Text) - Val(txtLPerCmss.Text)
```

End If

```
If ((inpPoly = txtPolNo(1).Text) And (Val(txtyear.Text)) = 5) Then
```

```
txtPrRate.Text = Val(txtSmlsVal.Text) * 0.1  
txtGrossPre.Text = (Val((txtSmlsVal.Text)) * 0.1)  
txtLPerCmss.Text = Val(txtGrossPre.Text) * 0.1  
txtNetPre.Text = Val(txtLPerCmss.Text) -  
Val(txtLPerCmss.Text) * 0.1  
txtRenWl.Text = Val(txtGrossPre.Text) -  
(Val(txtGrossPre.Text) * 0.4)  
txtLPerCmss.Text = Val(txtRenWl.Text) * 0.1  
txtNetPre.Text = Val(txtRenWl.Text) - Val(txtLPerCmss.Text)
```

End If

```
If ((inpPoly = txtPolNo(1).Text) And (Val(txtyear.Text)) = 6) Then
```

```
txtPrRate.Text = Val(txtSmlsVal.Text) * 0.1  
txtGrossPre.Text = (Val((txtSmlsVal.Text)) * 0.1)  
txtLPerCmss.Text = Val(txtGrossPre.Text) * 0.1  
txtNetPre.Text = Val(txtLPerCmss.Text) -  
Val(txtLPerCmss.Text) * 0.1  
txtRenWl.Text = Val(txtGrossPre.Text) -  
(Val(txtGrossPre.Text) * 0.5)  
txtLPerCmss.Text = Val(txtRenWl.Text) * 0.1  
txtNetPre.Text = Val(txtRenWl.Text) - Val(txtLPerCmss.Text)
```

End If

'Else

```
DataEnvironment1.rsCommand3.MoveNext
```

```
        If DataEnvironment1.rsCommand3.EOF Then
            DataEnvironment1.rsCommand3.MoveLast
        End If
        'End If
    Next m
Else
    DataEnvironment1.rsCommand1.MoveNext
    If DataEnvironment1.rsCommand1.EOF Then
        DataEnvironment1.rsCommand1.MoveLast
    End If
End If

Else
    DataEnvironment1.rsCommand1.MoveNext
    If DataEnvironment1.rsCommand1.EOF Then
        DataEnvironment1.rsCommand1.MoveLast
    End If
End If
Next k

End Sub
```

```
Private Sub mnuPro_Click()
    Dim SmlVal As Single
    DataEnvironment1.rsCommand1.MoveFirst
    For k = 1 To DataEnvironment1.rsCommand1.RecordCount
        SmlVal = Val(txtSmlsVal.Text)
        txtComToAgent.Text = SmlVal * 0.1

        DataEnvironment1.rsCommand1.MoveNext
        If DataEnvironment1.rsCommand1.EOF Then
            DataEnvironment1.rsCommand1.MoveLast
        End If
    Next k
End Sub
```

End Sub

```
Private Sub mnuSave_Click()
    Unload Me
    DataEnvironment1.rsCommand1.Close
```

```
Load frmPro
frmPro.Show
End Sub
```