**1. INTRODUCTION**

**1.1 General Introduction**

Programming is a complete task of producing a computer program in a computer’s own language. So, programming becomes one of the main aspects of the student studying BCA. We are assigned to develop a project in C programming language to fulfill 100 marks in semester. This project gives us an opportunity to broaden our knowledge about C programming. This project is medium through which we can establish our confident to generate concept of programming ourselves.

This project is product of our experience that is achieved during the period of one year in the field of computer. We have been made attempt to develop a project “**Medical Store Information System**”. This is user friendly menu driven system on which we can perform the task related to the record of suppliers, customers and medicine. This program facilitates us to entry the new record of medicine, to get the information of all the medicine of related to the medical.

In these days, everything is rapidly been solved by using computers for the easiest and effectiveness because of its high Accuracy, Speed, Storage Capacity, Reliability, Automatic, Diligence and Versatile manner. Our program **Medical Store Information System** is basically oriented towards the computerizing the data entry oriented records of the **Medical Store.** The programming language used for developing this software is **'C'.**

We have chosen the topic **Medical Store Information System** to perform the computerized system in the present situation. Because hand-working system is time consuming and is unreliable to record information and manage the data. This system enables us to record, manage and is easiest way to find out the information easily in the short time with high reliability and accuracy. It enables Record new data, update data, modify data, delete data and it involves only in the data of the medicine.

**1.2 Advantages**

* + - * + Execution will be very fast
        + Easy to record the data of a medicine, suppliers and customer
        + Easy to search the information about suppliers, customer and medicine
        + Easy to manage the, data in the proper form
        + Easy to view the suppliers, customer and medicine information
        + Easy to view the record of medicine, suppliers and customer
        + Easy to delete record of the medicine, customer and suppliers
        + Easy to edit record of medicine, suppliers and customers
        + Less costlier

**1.3 Disadvantages**

* + - * + Multiple records are not subject to be edited or updated one after another while execution of program
        + Multiple work in same record is not possible
        + Not secure
        + It not manage the transaction about the benefits, because it is only a information system
        + Time Consuming.
        + Less Data Security.
        + More paper works are to be done.
        + No view generation facility.
        + No report generation

**2. Problem Statement**

As it is clear in this technical age or the age of latest technology, the computerized system brought out the new system of keeping records. The manual system is difficult to record, manage, update and modify the data of customer efficiently and at minimum time. To overcome this Problem we were developing this **Medical Store Information System** for efficient, fast and at low cost.

This topic **Medical Store Information System** performs the computerized system in the present situation. Because manual hand-working system is time consuming and that is unreliable to record information and manage the data. This system enables us to record, manage, and is easiest way to find out the information easily in the short time with high reliability and accuracy.

Large numbers of files are required to store any particular information in manual system. Efficiency and the concentration of the person breaks down while working many hours in a day and to access the different files at same time, there is probable of being mistake in filing system. Although computerized system leads the unemployment problem in the society, community and nation or in the whole world but it gives many facilities us to dealing with many tasks or the components at the same time.

**3. Objectives**

Objective is the key point of each and every thing which is available in this entire world. Likewise, our project also has some objectives. The main objective of this project is to provide complete, easy and reliable software to the related field so that the users feel comfortable to access the software. At last we ensure that the software is error free, effective and easy for data access and is suitable for the electricity authorities.

Our project **“Medical Store Information System”** maintains detailed records of all the Customer and supplier as well as the Medicine.

The Medical Store Information System data file should contain following information:

**3.1 Details of Supplier information**

In this section the project keeps the record of Supplier id, Supplier name, Supplier Phone, Supplier Address and maintains the information in suppliers.dat data.

**3.2 Details of Customer Information**

In this section the project keeps the record of customer id, Customer name, Customer address, contact number in the customer.dat data.

**3.3 Details of medicine Information**

In this section the project keeps the record of Medicine id, Medicine name, Manufacturing Date, Expiring Date, Rack number, quantity information in the medicine.dat data.

**4. Requirement Analysis**

Requirement analysis is the process of identifying all data required for a software program.

The following are the list of required materials to install the software.

* 1. **Hardware Requirements**
* RAM (2 GB)
* Hard Disk ( 150 GB)
* Processor (at least of 1.6 GHz Dual-Core)
  1. **Software requirement**
     + - Windows/DOS based operating system
       - IDE : Code Block
       - Complier : GCC
       - Microsoft Office

**4. Feasibility Study**

Main goal of feasibility is to determine whether the proposed project is worth pursuing. The study determines two fundamental categories: cost and benefit. It deals if the project is going to involve critical area within the organization. Development time, require expensive hardware then a more formal feasibility study is undertaken. It is helpful to determine cost and benefit that arise with the database approach. Feasibility analysis includes the following feasibility:

**4.1 Technical Feasibility**

It deals with whether the hardware and software are reliable to meet the needs of the proposed system and whether they can be required by the organization in the required time. Hardware and software requirement for the technical feasibility are as follows:-

**Hardware**

* + - Personal Computer
    - At least 128 MB RAM
    - At least 4 GB of HDD
    - At least 1.6 GHZ processor
    - Functional keyboard and mouse
    - Backup media like pen drive, CD-R/CD-RW

**Software**

* + - Operating System Windows 10
    - IDE ( Code Block)
    - Compiler ( GCC )

**5.2 Economical Feasibility**

Economic feasibility conducts a full system investigation. Hardware and software for the class of application being consider. It include: customer, service, resource utilization and fewer error.

Our project has following economic feasibility:

Total estimated cost of the project Rs. 1000

Estimated sale price of the project Rs. 1200

**5.3 Operational feasibility**

Our project medical store information system is developed in C, is fully functional and supposed to fulfill the operational requirement of the medical store to store information only.

This project will manage the record of medicine, customers and suppliers.

**5.4 Schedule feasibility**

It decides to what extent the proposed information system support the organization. It includes the schedule task as: planning, requirements, investigation and design. Our project includes the following schedule task:

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S.N** | **Jobs** | **Number of days** | | | | | | | |
| **2** | **3** | **4** | **3** | **4** | **5** | **4** | **5** |
| **1** | Fund Collection |  |  |  |  |  |  |  |  |
| **2** | Problem Identification |  |  |
| **3** | Requirement Analysis |  |  |
| **4** | User Interface |  |  |
| **5** | Program Design |  |  |
| **6** | Coding |  |  |
| **7** | Testing and Debugging |  |  |
| **8** | Final Project |  |  |

Fig: - Gantt chart

The Feasibility have done perfectly hence any of the obstacles are not occur so, the project is feasible for develop.

**6. System Design**

System design is the most important part of developing a project. Once the requirements for a System have to be documented, software engineering designs a software system to meet them. We were using the following things while developing the **Medical Store Information System.**

**6.1 Design and specification**

After the field visit and data were collected all the hardware and software requirements were collected by us for the easiness to fulfill the maximum requirements of this project.

**6.2 Algorithm**

Algorithm refers to the sequence of instruction written in the specific order using simple English statement to solve a particular problem.

**6.3 Flowchart**

Flowchart is the pictorial or graphical representation of an algorithm using different symbols to denote different function.

* + - * **Flowchart For Main Menu**

**1. SUPPLIER SECTION**

**2. CUSTOMER SECTION**

**3. MEDICINE SECTION**

**4. CLOSE SECTION**

**N**  **Y**

**SUPPLIERS SECTION**

## IS CH=1?

**N** **Y**

## IS CH=1?

**CUSTOMR**

**SECTION**

**N**

**N** **Y**

## IS CH=1?

**MEDICINE**

**SECTION**

**N Y**

**CLOSE**

**APPLICATION**

## IS CH=1?

Fig: Flowchart of main menu

* + - * **Flowchart For Suppliers Section**

**[1] ADD SUPPLIERS**

**[2] VIEW SUPPLIERS**

**[3] MODIFY SUPPLIERS**

**[4] SEARCH SUPPLIERS**

**[5] DELETE SUPPLIERS**

**[6] BACK TO MAIN MENU**

**[7] CLOSE APPLICATION**

**N**  **Y**

**ADD SUPPLIERS**

## IS

**N Y**

## IS CH=1?

**VIEW SUPPLIERS**

**N Y**

**SEARCH SUPPLIERS**

## IS CH=1?

**N Y**

## IS CH=1?

**DELETE SUPPLIERS**

**N Y**

**BACK TO MAIN MENU**

## IS CH=1?

**N Y**

**CLOSE**

**APPLICATION**

## IS CH=1?

* + - * **Customer Section**

**[1] ADD CUSTOMERS**

**[2] VIEW CUSTOMERS**

**[3] MODIFY CUSTOMER**

**[4] SEARCH CUSTOMERS**

**[5] DELETE CUSTOMERS**

**[6] BACK TO MAIN MENU**

**[7] CLOSE APPLICATION**

**N**  **Y**

**ADD CUSTOMER**

## IS

**N Y**

**VIEW CUSTOMERS**

## IS CH=1?

**N Y**

**SEARCH CUSTOMERS**

## IS CH=1?

**N Y**

## IS CH=1?

**DELETE CUSTOMERS**

**N Y**

**BACK TO MAIN MENU**

## IS CH=1?

**N Y**

**CLOSE**

**APPLICATION**

## IS CH=1?

**6.4 Use case Diagram**

**MEDICAL STORE INFORMATION**

**SYSTEM**

**CLOSE APPS**

**CUSTOMER**

**MEDICINE**

**SUPPLIER**

**ADD CUSTOMER**

**ADD MEDICINE**

**ADD SUPPLIER**

**VIEW CUSTOMER**

**VIEW MEDICINE**

**VIEW SUPPLIER**

**MODIFY CUSTOMER**

**MODIFY MEDICINE**

**MODIFY SUPPLIER**

**SEARCH CUSTOMER**

**SEARCH MEDICINE**

**SEARCH SUPPLIER**

**DELETE CUSTOMER**

**DELETE MEDICINE**

**DELETE SUPPLIER**

**BACK TO MAIN**

**BACK TO MAIN**

**BACK TO MAIN**

**CLOSE APPS**

**CLOSE APPS**

**CLOSE APPS**

**8. Testing**

Testing is the process of analyzing the software item to detect the differences between existing and required conditions i.e. testing is the process of making sure that the program performs its desired task. To test the program some test data are identified and those test data are given as an input to the program and we compare the actual result of the program with the expected result. The both are similar then we have said that the program is working properly. The testing process can be done by two method that are follow as

* Black box testing

The testing is performed without viewing all internal details are called black box testing.

Instead of testing the coding part of the software, a program is tested to verify the desire outputs as per the given inputs. Different sample data is used to verify this kind of testing.

* White box testing

The testing is performed with viewing all the internal details are called white box testing. In white box testing, the internal source code of a program is tested such as operators, expression, control statement, variables, constant function etc.

We used the white box testing for test the program.

**9. Implementation**

In this phase a program install to the user or client’s computer when the existing system is done it works properly. We implemented this program in our personal computer.

**10. Conclusion**

Today’s world has made an incredible advancement technology but we Nepalese are lagging far behind, because the thing which we lack is ‘creativity’. Only bookish knowledge cannot be sufficient. The need of a student in this competitive age, we need to learn, to explore, expose and strengthen the innate talent and skills which never mean they come through. This project will come to us as minor of unfathomable creativities and potential that exists and grows in the heads of students.

We are glorious to complete this project successfully. In spite of insufficient time and arrival of obstacle, we did better than our expectations. We constructive comments and suggestions from all the interested ones, which help us in making this, project a better one .At last us were very thankful to our teachers and friends who helps us, which I cannot express in the word.

**11. Future Enhancement**

The following are the activities that will be added to this software for the betterment in future.

* In this software ‘Rebate’ and ‘Fine’ system is not presented but we will think to enhance it to add such capability
* Add the multiple user software capability
* Provide higher security system
* Provide best graphic platform
* Enhance as a management system as the context of benefit.