**2. SYSTEM STUDY**

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**2.1 EXISTING SYSTEM**

The existing system is totally manual. The existing system for Managing Student information involves various functions carried out manually on paper. The personal and educational information are stored in the traditional book keeping system and the reports are also uses the same method.

The main limitation of this system is that it is time consuming process; resulting is over use of manpower. There is no security and a great chance for loss of valuable data stored in paper files due to hazards like fire and improper storage. Error detection is very difficult. While carrying out error correction methods, the whole process may have to be repeated. Searching for particular data is also very difficult in this system. So an alternative solution is needed.

In the present system all the operations are done manually. It is very difficult to do calculations manually and may not be accurate. That is why we are automating the information of students. The mark and grade calculation are very difficult but it is very easy to implement computer software at a minimum cost. And it is economically feasible.

Drawbacks of Existing system:

* Slower:

Processing is slower where large volumes of data need to be dealt with. Slower processing means that some information that could be provided if computerized systems were used will not be provided at all, because there is no time.

* Risk of Errors:

The risk of errors is greater.

* Less accessible:

Information is generally less accessible. Access to information is often is restricted to one user at a time, paper files can easily be misled in trays, in which case the information they contain is not available to all.

* Bulk:

Paper based systems are generally very bulky both to handle to store and office space are expensive.

* Time and Manpower:

Report generation various area is done manually using great amount of manpower and time. Erroneous records may lead to misleading information, which is more likely in manual system.

* Less User-friendly:

The technique is used in existing system is more complicated and there is lack of technical background towards the system and also it’s less user-friendly.

**2.1.1 Identifying Needs of the System**

The work that was being carried out with the help of the manual system has to be transferred to the personal computer from the variety of reasons,

1. The manual system is slowly being phased out and all the activities that are being carried out by manual system are to be taken care of by the system.
2. There are many functions that demanded computerization, but were not being covered by the manual system.
3. Throughout time is high for processing.
4. As information is very voluminous and it is not possible to run systematically and accurately considering the time factor.

The system also needs easy access. With a computer system we can easily access any records (Personal details, Educational details etc.) in it. But when it is in manual systems it is difficult to find it using its serial numbers or something like that. So now-a-days the need of the system is important.

**2.1.2 Preliminary Investigation**

While designing any system preliminary investigation is very important. It is the essential part of the requirement analysis. Preliminary investigation is the basic of the total system. Preliminary investigation is to be carried out in two steps. These are also known is fact finding techniques.

Interview: - Various interviews are being carried out on the concerned client to get the information about the system. We met the Department head of the College and he explained the working of the current system.

Record Review: Various documents such as the curriculum vita and mark list studies. This provided me about what data is to be stored. And how to interrelate them. They have stored information about the student’s personal details as well as the educational details.

In our system investigation we found some details like,

We visited a College named ‘Baselios Poulose II Catholicos College‘at Piravom which is now an NACC accredited institution with A grade. We collect all information about the students. From that information we understood that all the details are stored manually. It takes more time and not safe.

We are also study about Earlier software development system development life cycle (SDLC) models have been created: waterfall, spiral etc.

The oldest of these and best known, is the waterfall:

Sequence of stages in which the output of each stage becomes the input for the next. These stages can be characterized and divided up in different ways.

* Project planning, feasibility study: Establishes a high level view of the indented project and determines its goals.
* System Analysis, requirement definition: Analyses end- user information needs.
* System design: Describe desired features and operations in detail.
* Implementation: The real code is written here.
* Integration and testing: Bring all pieces together and checks for error, and bugs.
* Acceptance, Installation, Deployment: The final stage of initial development.
* Maintenance: This is the least glamorous and perhaps most important step of all.

**2.2 PROPOSED SYSTEM**

The primary objective of the proposed system design is to overcome the drawbacks of the existing system and reduce the manual work. We can achieve this objective by computerizing the whole activities that are carried out manually. Computerization will reduce manual work and produce desired information efficiently and quickly.

The “Student Information System” has been design to reduce the manual work in the following manner.

* Data entry screens are designed such that they are very user friendly and minimum typing is required from the user.
* Novice user can also use the system without any training.
* System provides various information through reports quickly and accurately in easily understandable formats.
* The new system is more user friendly due to GUI feature of Visual Basic.
* The system supports security at operational level i.e. it gives access to view and manipulate the information based on the user login.
* Duplication of data will be avoided.
* Menu driven interface provides ease of use.
* Availability of previous data for future reference.

**2.3 FEASIBILITY STUDY**

One of the important outcomes of the preliminary investigation is the determination of the feasibility of the system. These are different aspects of the feasibility study in the investigation phase. After the documents reviewing the selected personnel, investigating the various resources the following are the results for the three feasibility.

Three key combinations are involved in the feasibility study

1. Economic feasibility
2. Technical feasibility
3. Operational feasibility

**2.3.1 Economic Feasibility**

Economic analysis is the most frequently used method for evaluating the effectiveness of a candidate system. More commonly known as cost/benefit analysis, the procedure is to determine the benefit and saving that are expected from a candidate system and compare them with the term of time by automating the process of report generation.

The system can be developed technically and if installed would still be good for the organization. The cost is found to be lesser compared to the benefits of the proposed system because proposed system needs only a single computer and an administrator for operating. It compared to the existing system, it loses so many cost for buying papers as well as the case of salary of the operator. Also the workload of a user will decrease to half of the current workload. Hence the proposed system is found to be economic feasible.

**2.3.2 Technical Feasibility**

Technical study is a study of hardware and software requirements.

All the technical issue related to the proposed system is dealt during feasibility stage of preliminary investigation produced the following results:

Hardware Requirement:

Pentium IV

256 MB RAM

500 MB HDD

Software Requirements:

Window 2000

Visual Basic

Microsoft SQL Server

* Data keeping capacity of the proposed equipment to be used for the system are enough.
* Data retrieval for the various enquires are fast enough technically, according to the proposed hardware. The entire terminal user connected to the proposed system will get the adequate response.
* The proposed system is very easy in use, database security is very high, easy in access, and reliability and accuracy are enough.

Considering the above facts the proposed system is fully technically feasible.

**2.3.2 Operational Feasibility**

The developed system is completely menu driven and user friendly. Also the system is developed in Visual Basic, which is GUI. There is little need skill for new user to operate the software. Reports will be exactly as per the requirement.

At the beginning of preliminary investigation work all the personnel approached responded positively this reduces the chance of resistance to the proposed system. Considering all the issue stated above makes the proposed system operationally feasible. In our organization only the admin user (Department head or Teacher of the college) uses the software. So they needs to be aware of the software initially. Then he can use it easily. So it is feasible.