**System Designing-**

Design is essentially the bridge between specification and the final solution for satisfying

the requirement. The goal of the design process is to introduce a model or representation

of a system which can be used later to build that system. A design should clearly be

verification, complete and traceable. The two most important properties that concern

designers are efficient and simple. Creating a simple and efficient design of a larger

systems can be extremely complex tasks that require good engineering judgement.

The systems objectives outlined during the feasibility study serves as the basis from

which the work of system design is initiated. Much of the activities involved at this stage

are of technical nature requiring a certain degree of experience in designing systems,

sound knowledge of computer related technology and through understanding of

computers available in the market and the various facilities provided by the vendor.

Nevertheless, a system cannot be designed in isolation without the active involvement of

the user. The user has a vital role to play at this stage too. As we know that data collected

during feasibility

**Input Design**

Input Design plays a vital role in the life cycle of software development. It require

very careful attention of the developer. The input design to feed data to the application as

accurate as possible. So inputs are supposed to be designed effectively so that errors occur while feeding the minimised. According to the software concept, the forms or screens are designed to provide validation control over the input limit,range and other related validation.

This system has input screens in almost all modules. Error messages are

developed to alert the use whenever he commits some mistakes and guide him in the

right way. Let us see it deeply about this under the module design.

The input design is the link that ties the information system into the

user's world. Input specifications describe the manner in which data enters

the system for processing. Input design features can ensure the reliability

of the system and produce results from accurate data, or they can result

in the production of erroneous information.

* Developing specifications and procedures for data preparation
* Steps necessary to put data into a usable form for processing.
* Data entry, the activity of putting data into the computer processing. Input stages several activities have to be carried out as part of the overall input process.

They include some or all of the following.

* Data recording (i.e., collection of data)
* Data encapsulation (i.e., transfer of data)
* Data conversion (i.e., controlling the flow of data)

Input Performa was designed, after a careful discussion with users. It was

attempted to cover all user requirements. Designed Performa were given to user

for any suggestion and final approval.

**Module Design**

Project is divided into four major categories

* Add
* Search
* Report
* Login

**Output Design-**

The output from the computer system is required primarily to communicate the results of the

processing to the users. In this application various output designs like reports have been formed.

Various reports like unpaid monthly, unpaid yearly, category…

The logical design of an information system is analogous to an engineering blue

print of an automobile. It shows the major features and how they are related to

one another. The detailed specification for the new system was drawn on the

basis of user's requirement data. The outputs inputs and databases are designed in

this phase. There are many types of output, all of which can be either highly

useful or can be critical to the user, depending on the manner and degree to

which they are used to. Various types of outputs required can be listed as below:

* External outputs, whose destination is outside the organisation
* Internal outputs, whose destination is with the organisation.

During the designing the output for this system, it was taken into

consideration, whether the information to be presented in the form of

query of report or to create documents etc.

Other important factors that were taken into consideration are:

* The end user, who will use the output.
* The actual usage of the planned information.

**Software Design-**

The purpose of this phase is to plan a solution for the problem specified by the requirement document. This is the first step in moving from the problem domain to the solution domain. Designing activity is divided into two parts.

* **System Design**: It aims to identify the modules that should be in the

system, the specification of these modules and how they interact with each

other to produce the desired result.

* **Detailed Design**: The internal goal of each of the modules specified

in the system design is decided.

**Database Design-**

A database is a collection of interrelated data stored

with a minimum of redundancy to serve many applications. It minimises the

artificiality embedded in using separate files. The primary objectives are fast

response time to enquires, more information at low cost, control of redundancy,

clarity and ease of use, accuracy and recovery. The organisation of data in a

database aims to achieve three major objectives, they are data integration, data

integrity and data independence. During the design of the database at most care

has been taken to keep up the objectives of the database design.

**Code Design-**

The process of code is to facilitate the identification and retrieve of items of

information. The code should be simple and easy to understand. The codes

were designed in such a way that the features such as optimums human-oriented

use and machine efficiency unaffected.

For the code to be designed effectively, the following characteristics were also

considered while designing the code.

* Uniqueness
* Versatility
* Stability
* Simplicity
* Consciousness

The code should be adequate for present and anticipated data processing for

machine and human use. Care was taken to minimise the clerical effort and

computer time required to continue operation.

**Process Design-**

The process can be conceptualised in such a way to keep the methodology of the main module process along with some auxiliary task, which will run concurrently with the main program.

The top-down approach is maintained so as to keep track of the process, which satisfies the maintenance reliability testing requirements. The concurrency of the data is checked during data entry, by means of validation check

for data in each field.

**Design Requirements-**

As the project will be accessed by many people. So design should be done

keeping in mind all kind of requirements of people and provided with easy and

convenient and easy way to access the database.

Reports are also generated in this manner, which is helpful for the people accessing the website. In the nutshell, both the site and reports are designed by keeping in mind the varying needs and demands of diverse kinds of people.