# SYSTEM DESIGN

## Basic System Design

It is the process of designing the system elements. According to the requirements of the system it includes the architecture components, system interface design and data used in the system.it has activities of designing like designing environment, architecture design and user interface design, database design and design system controls and security.

Architectural design shows and it explain the views, model and behaviour and structure of the system. Logical design represents the data flow of the system which is input and outputs data of the system. Physical design shows how user adds data information in the system and how system represents data information to the user. How data stored in the system and flow of the data.

System design provides the description design of the system.it provides the full understanding of what to build and how to build. System Design provides information necessary to provide description of the details of the system software to be built. In System Design the user expectation documented properly and helps in developing the system because all the functionality of the system captured properly in system design. The main components of the system design are explained below:

### The Database Design

### The database is used to store and manage data. The Emedi care uses the Mysql database which is the type of relational database management system (RDBMS).The Database design is a process that helps in creating, implement and maintain project data. It is used to store and manage different types of data. The database design works as the backend tire of the software. Database design shows how the data is are going to store in the system and proper design highly affects the overall performance of the system.

### Front End Design

The front end design is the graphical user interface design of the system. It is the look and feel of the system. The front end designed by using html, css and JavaScript. The sublime text editor is used to design the front end design of the system.

### Data Design

### Data design is the process of organization the data according to database model. It defines what data to store and defines data elements relationship between them. The data design defines the overall structure of the system database. The Entity relationship data helps to design the database efficient. The entity relationship defines what entities and attributes of the data stored in the database.

## Input Design

It is the process of input data to the system that processed to produce output. The data that user enters in the website is known as input data. The system treats the user input data as an input design of the system. It is important that only valid and right data should enter in the system because input quality determines the output quality of the system.

It gives end user the controlled environment for entering data. Input design defines how the user enters data into the system for processing or output. The data enter in the website through forms treated as data entry and after the submission of form data the system perform processing on the data to generate output is known as input design. The objectives of the emedi care input design are:

* Control the amount of input
* Avoid errors in data
* Ensure accuracy
* Forms ensure the accurate completion of data entry.
* Select the appropriate data entry medium
* Input validation techniques uses.
* Keep the process simple

The input subjects are the elements or items captured in the input design. The subject input design of the project is enter admin login details, products details, order details and user register and login details etc. the features of the input design are interface design, command buttons , sequence of data entry , data integrity.

The “input validation” is the process of verifying the user input data on the web form matches the expected data value or format.it ensures that control value is correctly entered by the user. Input validation techniques are used to identify input errors. The input checks designs for the emedi care are mention below:

* Not data value should be null
* The correct data enter by using data type validation
* the length of the data value are set properly
* handle the empty entry control

## Output design

The output design is the output that system shows according to the requirements of the user selection. The result or information provided by the system interface is known as output design. The design of output is the most important task of any system. The main goal of the output design is to show or generate the desired information. It controls the displaying of the output of the system. It defines what output needed that user needs.

**STEPS DURING OUTPUT DESIGN**

The important data for output design are:

1. Data elements

2. Length of data elements

3. Required output element

4. How much output needed?

5. What output show to which user.

6. Output serves the purpose.

7. Providing output on time.

**Types of Output Design**

The two main types of output design are:

1. Detailed Report
2. on Screen Search

**On Screen Search**

This feature allows users to look up information about a specific product etc. The user can perform a separate search for the specified record using search form. The user enters the desired product name into the search field, clicks the search button, and the searched products from the database show in the page. The user can search the product or can search the product by symptoms.

**Detailed Report**

Detailed report contains information which has no filtering. The list of data show in the reports and it can be printed. The emedi care is intended to receive information about users, orders, admin login and products through printed reports.

## Architectural Design

Architectural design represents the requirements of the system, it describe the top level structure and components of the system. It is the collection of hardware and software components and interfaces to establish the environment for the development of the system. These components a can be system input data , system output , functions of the system and the interaction of user between them. Architectural design defines the functional and performance behaviour of the system.

## Interface Design

Interface design is the user interface of the system. It is the design of the system that user interacts with to use the system. The system behaviour according to system interaction and manage the flow of information .interface design is responsible for the appearance, interactivity, behaviour, usability and all over feel of the website. The interface design focuses on information architecture and maximizing the usability and the user experience.

## Modular Design

Modular design is used to design the application by breaking it into sub or separate parts called modules. It is used to divide the complete application into sub parts for developing it more efficiently and organize complex design and process of the website. The separate modules can be created, modified, replaced and exchange easily. Emedi care website uses the modular design because it includes consistency in development, reduced development time and makes the website flexible.