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**“Hospital Management System”**

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**Chapter-1 Introduction**

### Introduction

This is a comprehensive Hospital Information Management System there are several modules that support most of the workflows of a modern hospital. Most of the differences in the requirements of different hospitals can be achieved through configuration. This system has given priority to user-friendliness .The design is simple as it could be, yet very robust and flexible to address diverse and complex business workflows in the heal care domain.

* 1. **Problem Statement**

Hospital management system

### Objective

The main idea of developing this project is to simplify the work and make procedures easy for customers.

### Limitations of existing system

Traditional method of handling the data, the handwritten files are less systematically organized as compared to maintaining the database using our management system.

## CHAPTER-2 LITERATURE SURVEY

### 2.1 Proposed system

The proposed system is based on Python,Django,html, CSS, JavaScript language and MYSQL Database would automate the system. Time saving and least efforts would be implied and maintain accuracy. After making a detailed study of the existing system it is found that there are many difficulties in handling total procedure manually. So, to reduce human error, save valuable and precious time, and making optimum use of manpower we decided to go for computerization of existing system.

## CHAPTER-3 TECHNOLOGIES USED

### Front End

* 1. Front End of the website is prepared byte usage of html, CSS , Python Coding along with Django framework.
  2. Back End

The back end of the application is maintained in SQLite3 Relational Management System.SQLITE3.

## CHAPTER-4 SOFTWARE REQUIRMENT SPECIFICATION

### Hardware Interfaces

Computer: A computer will be required to access the website. It must possess a minimum of 256mb of RAM for a smooth experience, Operating System – Windows XP ,10,11

CPU – Intel Core i3

### Software Interfaces

“MYSQLITE” database server to store data. A windows-based operating system. Visual studio for coding and software development.

Communications Interfaces: -Local Area Network and Wide Area Network to connect to the internet.

### Memory Constraints

Require at least 256MB of RAM and 10GB hard disk space to run the application server. On client side memory constraints follow constraints of corresponding browser.

Operations: -System will support following major operations:

1. Register
2. Login
3. order
4. Total bill calculation

### Hardware Specification

Definition of Hardware: Computer hardware is the collection of physical elements that constitutes a computer system. Computer hardware refers to the physical parts or components of a computer such as the monitor, mouse, keyboard, computer data storage, hard drive disk etc. All of which are physical objects that can be touched. In contrast, Software is instructions that can be stored and run by hardware**. Hardware requirements for our project:**

1. Monitor
2. Processor
3. RAM
4. Hard Disk

### Software Specification

#### Software Requirements

* Front-End: HTML, CSS, JAVASCRIPT and PYTHON, DJANGO
* Back-End: MySQLite3

## CHAPTER-5 DESIGN PHASE

### Er-DiagramDiagram Description automatically generated

Fig 1.1 ER-Diagram

### USE CASE DIAGRAM

Diagram

Description automatically generated

Fig 1.2 Use case diagram

* 1. **SEQUENCE DIAGRAM**

Diagram

Description automatically generated

Fig 1.3 Sequence diagram

**5.4** **CLASS DIAGRAM**

Diagram

Description automatically generated

Fig 1.4 Class diagram

**5.5 ARCHITECTURE DIAGRAM**

Diagram

Description automatically generated

Fig 1.5 Architecture diagram

**5.6 DATA FLOW DIAGRAM**

Diagram

Description automatically generated

Fig 1.6 Architecture diagram

**5.7 PROCESS DIAGRAM**

Graphical user interface

Description automatically generated with medium confidence

Fig 1.7 Process diagram

## CHAPTER-6 IMPLEMENTATION PHASE

Implementation phase is also called Installation Phase is concerned with actually installing the system on the client’s computer system and then testing. Then follows the software maintenance. Maintenance is an activity that commences after the software is developed and deployed. The system implementation is done successfully at client side and both client and I are fully satisfied with the performance of the package.

### Back up strategy

The application is loaded on the PC at client side. Access rights will be given level wise to see different kind of reports. Backup of the application can be taken at any time from the application itself to any desired destination.

### Responsibility

Administrator of the application will be responsible for taking daily backup.

### Recovery

* + - In case of any damage in application/data, following things will be available:
    - Original application software media or CD.
    - Backup of data till last day.
    - MS- Office CD (already existing)
    - Windows 10 boot diskette(already existing)
    - Windows 10 operating system CD (already existing)
    - Whenever the m/c will be shut down, application would automatically Store the current data on backend of SQLITE3 sever in device.

## CHAPTER7 TESTING PHASE

#### System Setup

**Testing** is the process of executing the program(s) with the intention of finding out errors. During testing, the program to be tested is executed with a set of test cases and the output of the program for the test case is evaluated to determine if the program is performing as it is expected to be.

**CONNECTIVITY** Here we are connected our Django project with db. sqlite3 with for backend where the data will be stored into the database only admin can have the access with table adding and other features

#### Levels of testing:

* + 1. Unit Testing
    2. Integration Testing
    3. System Testing
    4. Acceptance Testing

These different levels of testing attempt to direct different types pf faults. The relations of faults introduced in different levels of testing are as shown below:

* + 1. **Unit Testing** The first level of testing is called unit testing. In this, different modules are tested against the specifications produced during design for the modules. Unit testing is essential for verification of the code produced during the coding phase, and hence the goal is to test the internal logic of the modules
    2. **Integration Testing** The next level of testing is often called the integration testing. In this, many tested modules are combined into sub systems, which are then tested. The goal is to see if the modules can be integrated properly, the emphasis being on testing Interfaces between modules. This testing activity can be considered as testing design and hence the emphasis on testing modules interactions.
    3. **System Testing** During system testing, the system is used experimentally to ensure that the software does not fail i.e. it will run according to its specifications and in the way users except

,special test data inputs for processing and the results examined. A limited number of users are allowed to use the system so analyst can analyze the use in unforeseen ways**.**

* + 1. **Acceptance Testing** It is sometimes performed with realistic data of the client to demonstrate that the software is working properly. Acceptance Testing focuses on the external behavior of the system. The internal logic of the program is not emphasized.
  1. **Test Case** Effective testing is a must for any software as it ensures an error free and efficient system. The software for “DJANGO" has been completely tested by me with actual live data.

## CHAPTER8

## CONCLUSION

The development of this system has been a great learning and satisfying experience. It has been a learning experience as it has increased my knowledge as well as my logical concepts of Visual Basic. It also has helped me in developing my designing ability of crystal report. It is also quite satisfying on my part, as I have tried my level best to develop and design a system, which can be totally of practical use for discovery's encyclopedia. Thus, we conclude by saying that although this is my firsthand on practical experience therefore the experience gained while developing it will certainly going to help me in the field of software development in the long run.

# CHAPTER-9

# FUTURE SCOPE

This system is basically concerned with the hospital appointments to the patients. By implementing this we can improve time saving and facility of the software access. This will be more convenient and easy booking appointments without any conflicts. The more choice preference based on client. The document only covers the requirement specification for the hospital management system. This document does not provide any references to the other component of the hospital management system. All the external interfaces and the dependencies are also identified in this document.

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