

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR
(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)



Final Year Internship Report
on
SOFTWARE DEVELOPER INTERN AT TECHCITI

Submitted By:

Anisha Soni

0901CS181011

Faculty Mentor:

Prof. Khusboo Agarwal

Department of CSE

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE
GWALIOR - 474005 (MP) est. 1957

MAY-JUNE 2022

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SOFTWARE DEVELOPER INTERN AT TECHCITI

A final year internship report submitted in partial fulfillment of the requirement for the degree of

BACHELOR OF TECHNOLOGY

in

COMPUTER SCIENCE AND ENGINEERING

Submitted by:

Anisha Soni

0901CS181011

Internship Faculty Mentor:

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Submitted to:

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TechCiti Software Consulting Private Limited

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Ref.No.TSCPL/2022-2023/HRD/INT3688

Date: 24th May, 2022

TO WHOMSOEVER IT MAY CONCERN

We would like to inform you that Ms. **Anisha Soni** has successfully completed her internship with our company, she has been working on the project title: "**Hospital Management System**" from 01- 01-2022 to 30-04-2022 as "Software Developer-Intern".

We have found her to be a self –starter who is motivated, duty-bound and hardworking. She has worked sincerely on her assignments and her performance is at par excellence.

We wish her all the best for her future endeavors.

Sincerely,



Manager

Human Resources Department

TechCiti Software Consulting Private Limited

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MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR
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CERTIFICATE

This is certified that **Anisha Soni** (0901CS181011) has submitted the Internship report titled Hospital Management system of the work she has done under the mentorship of Prof.Khusboo Agarwal, in partial fulfilment of the requirement for the award of degree of Bachelor of Technology in Computer Science and Engineering from Madhav Institute of Technology and Science, Gwalior.


Prof. Khusboo Agarwal
Faculty Mentor
Assistant Professor
Computer Science and Engineering


Dr. Manish Dixit
Professor
Head of Department
Computer Science and Engineering
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MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR
(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

DECLARATION

I hereby declare that the work being presented in this Internship report, for the partial fulfilment of requirement for the award of the degree of Bachelor of Technology in CSE at Madhav Institute of Technology & Science, Gwalior is an authenticated and original record of my work under the mentorship of Prof.Khusboo Agarwal, Assistant Professor, Department of CSE.

I declare that I have not submitted the matter embodied in this report for the award of any degree or diploma anywhere else.



Anisha Soni
0901CS181011
IV Year,
Computer Science and Engineering

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

ACKNOWLEDGEMENT

The full semester internship has proved to be pivotal to my career. I am thankful to my institute, **Madhav Institute of Technology and Science** to allow me to continue my disciplinary/interdisciplinary internship as a curriculum requirement, under the provisions of the Flexible Curriculum Scheme (based on the AICTE Model Curriculum 2018), approved by the Academic Council of the institute. I extend my gratitude to the Director of the institute, **Dr. R. K. Pandit** and Dean Academics, **Dr. Manjaree Pandit** for this.

I would sincerely like to thank my department, **Department of Computer Science and Engineering, for allowing** me to explore this internship. I humbly thank **Dr. Manish Dixit**, Professor and Head, Department of Computer Science and Engineering, for his continued support during the course of this engagement, which eased the process and formalities involved.

I am sincerely thankful to my faculty mentors. I am grateful to the guidance of **Prof.Khusboo Agarwal**, Assistant Professor, Department of Computer Science and Engineering, for his continued support and close mentoring throughout the internship. I am also very thankful to the faculty and staff of the department.

Anisha Soni
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ABSTRACT

Hospital Management System provides the benefits of streamlined operations, enhanced administration & control, superior patient care, strict cost control and improved profitability. HMS is powerful, flexible, and easy to use and is designed and developed to deliver real conceivable benefits to hospitals. More importantly it is backed by reliable and dependable support.

The project 'Hospital Management System' is based on the database, object oriented and networking techniques. As there are many areas where we keep the records in database for which we are using MY SQL software which is one of the best and the easiest software to keep our information. This project uses JAVA as the front-end software which is an Object Oriented Programming and has connectivity with MY SQL.

Hospital Management System is custom built to meet the specific requirement of the mid and largesize hospitals across the globe. All the required modules and features have been particularly built to just fit in to your requirement. This package has been widely accepted by the clients in India and overseas. Not stopping only to this but they are highly satisfied and appreciating. Entire application is web based and built on 3 tier architecture using the latest technologies. The sound database of the application makes it more users friendly and expandable. The package is highly customizable and can be modified as per the needs and requirements of our clients. Prolonged study of the functionalities of the hospital and its specific requirement has given it a wonderful shape both technically and usability wise. It covers all the required modules right from Patient Registration, Medicine details, Doctor, Wards, , Admin, Store, Patient appointment, bill payment, record modification, discharge details etc.

About the Organisation:

This Internship is a Product Testing Internship by **Techciti, Bangalore**. using Testing skills such as python fundamentals, Data Structures and Algorithms, Shell scripting, Windows and Powershell operations. This Training is followed by a Project in which we have to implement our knowledge about data handling and web development.

सार

अस्पताल प्रबंधन प्रणाली सुव्यवस्थित संचालन, उन्नत प्रशासन और नियंत्रण, बेहतर रोगी देखभाल, सछत लागत नियंत्रण और बेहतर लाभप्रदता के लाभ प्रदान करती है। एचएमएस शक्तिशाली, लचीला और उपयोग में आसान है और अस्पतालों को वास्तविक बोधगम्य लाभ देने के लिए डिज़ाइन और विकसित किया गया है। इससे भी महत्वपूर्ण बात यह है कि यह विश्वसनीय और भरोसेमंद समर्थन द्वारा समर्थित है।

परियोजना 'अस्पताल प्रबंधन प्रणाली' डेटाबेस, वस्तु उन्मुख और नेटवर्किंग तकनीकों पर आधारित है। चूंकि ऐसे कई क्षेत्र हैं जहां हम डेटाबेस में रिकॉर्ड रखते हैं जिसके लिए हम MySQL सॉफ्टवेयर का उपयोग कर रहे हैं जो हमारी जानकारी रखने के लिए सबसे अच्छे और आसान सॉफ्टवेयर में से एक है। यह प्रोजेक्ट जावा को फ्रंट-एंड सॉफ्टवेयर के रूप में उपयोग करता है जो एक ऑब्जेक्ट ओरिएंटेड प्रोग्रामिंग है और इसमें MySQL के साथ कनेक्टिविटी है।

अस्पताल प्रबंधन प्रणाली दुनिया भर में मध्यम और बड़े आकार के अस्पतालों की विशिष्ट आवश्यकता को पूरा करने के लिए बनाई गई है। सभी आवश्यक मॉड्यूल और सुविधाओं को विशेष रूप से आपकी आवश्यकता के अनुसार फिट करने के लिए बनाया गया है। इस पैकेज को भारत और विदेशों में ग्राहकों द्वारा व्यापक रूप से स्वीकार किया गया है। केवल यहीं तक नहीं रुकते बल्कि वे अत्यधिक संतुष्ट और सराहना करते हैं। संपूर्ण एप्लिकेशन वेब आधारित है और नवीनतम तकनीकों का उपयोग करके 3 स्तरीय वास्तुकला पर बनाया गया है। एप्लिकेशन का ध्वनि डेटाबेस इसे अधिक उपयोगकर्ताओं के अनुकूल और विस्तार योग्य बनाता है। पैकेज अत्यधिक अनुकूलन योग्य है और इसे हमारे ग्राहकों की आवश्यकताओं और आवश्यकताओं के अनुसार संशोधित किया जा सकता है। अस्पताल की कार्यप्रणाली और इसकी विशिष्ट आवश्यकता के लंबे समय तक अध्ययन ने इसे तकनीकी और उपयोगिता के लिहाज से एक अद्भुत आकार दिया है। इसमें रोगी पंजीकरण, दवा विवरण, डॉक्टर, वार्ड, व्यवस्थापक, स्टोर, रोगी नियुक्ति, बिल भुगतान, रिकॉर्ड संशोधन, छुट्टी विवरण आदि से सभी आवश्यक मॉड्यूल शामिल हैं।

संगठन के बारे में:

यह इंटर्नशिप Techciti, Bangalore द्वारा एक उत्पाद परीक्षण इंटर्नशिप है। परीक्षण कौशल जैसे कि पायथन फंडामेंटल, डेटा स्ट्रक्चर और एल्गोरिदम, यूनिक्स और शेल स्क्रिप्टिंग, विंडोज और पॉवरशेल संचालन का उपयोग करना। इस प्रशिक्षण के बाद एक परियोजना होती है जिसमें हमें डेटा प्रबंधन और वेब विकास के बारे में अपने ज्ञान को लागू करना होता है।

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Chapter 1: INTRODUCTION

1.1 OBJECTIVE

Hospitals are an important part of our life, delivering the greatest medical care to those suffering from a variety of diseases caused by climate changes, higher job loads, mental trauma stress, and so on. Hospitals must maintain track of their daily operations and records of their patients, physicians, nurses, ward boys, and other personnel who keep the hospital functioning smoothly and efficiently. However, keeping track of all of the activities and their records on paper is time consuming and prone to errors. Observing the continual growth in population and number of patients visiting the hospital, it is also a very inefficient and time-consuming process. All of these records are very unreliable, wasteful, and error-prone to record and maintain. Maintaining these records on paper is also not economically or technically possible. As a result, our project is built around the manual system's operation. The "Administration support system for medical institutions" is an automated version of the manual system that we designed.

Our project's major goal is to create a hospital that is 90% paperless. It also intends to provide low-cost, dependable automation of current systems. In addition, the system provides great data security at every level of user-system interaction, as well as robust and dependable storage and backup capabilities.

1.2 PROJECT DESCRIPTION

Human Body is a very complex and sophisticated structure and comprises of millions of functions. All these complicated functions have been understood by man him, part-by-part their research and experiments. As science and technology progressed, medicine became an integral part of the research. Gradually, medical science became an entirely new branch of science. As of today, the Health Sector comprises of Medical institutions i.e. Hospitals, etc. research and development institutions and medical colleges. Thus the Health sector aims at providing the best medical facilities to the common man.

Since Hospital is associated with the lives of common people and their day-to-day routines so I decided to work on this project. The human body is a highly smart and complicated system with millions of functions. Man has pieced together all of these sophisticated functions via his studies and tests. Medicine became an important aspect of research as science and technology advanced.

Medical science evolved into a totally new discipline of knowledge over time. Medical institutions, such as hospitals, and research and development institutes, as well as medical colleges, make up the Health Sector today. As a result, the health industry strives to provide the greatest medical care to the general public.

I chose to work on this project since hospital is related with the lives of ordinary people and their daily activities.

The manual handling of the record takes time and is prone to errors. The goal of this project is to automate or make online the process of daily operations such as room activities, new patient admission, discharge, assigning a doctor, and lastly calculating the bill. I did my hardest to make the challenging procedure of Hospital Management System as simple as possible by employing a structured and modular approach as well as a menu-driven interface. I tried to create the programme in such a manner that the user would have no trouble using it and that subsequent growth would be achievable without much work. Even though I cannot claim that this job is thorough, the major goal of my exercise is to execute each Hospital task in a computerised manner rather than the time-consuming manual method. I am confident that this software package can be readily used by non-programming personal avoiding human handled chance of error.

Chapter 2: SYSTEM STUDY

2.1 EXISTING AND PROPOSED SYSTEM

2.1.1 EXISTING SYSTEM

Before building any system, it's critical to understand the nature of the business and how it currently runs. The thorough investigation offers the exact information needed during design to guarantee that all of the client's needs are met. The feasibility study is the foundation for the inquiry or research undertaken during the analysis phase. It is not incorrect to state that the analysis and feasibility stages are intertwined.

During the feasibility study, high-level analysis starts. Despite the fact that analysis is portrayed as a step of the system development life cycle (SDLC), this is not the case. The analysis begins with the setup of the system and continues until it is maintained. Even after successful implementation of the system, analysis may play its role for periodic maintenance and up gradation of the system. One of the main causes of project failures is inadequate understanding, and one of the main causes of inadequate understanding of the requirements is the poor planning of system analysis.

2.1.2 PROPOSED SYSTEM

The proposed software product is the Hospital Management system (HMS). The system will be used in any hospital, clinic, dispensary or pathology labs. Clinic, dispensary or pathology to get the information from the patients and then storing that data for future usages. The current system in use is a paper based system. It is too slow and cannot provide updated lists of patients within reasonable time frame. The intention of the system is to reduce over-time pay and increase the number of patients that can be treated accurately. Requirement statements in these documents are both functional and non-functional.

2.2 TOOLS AND TECHNOLOGIES USED

Python is a high-level, general-purpose programming language that is interpreted. Python's design philosophy prioritises code readability through extensive usage of whitespace. Its language constructs and object-oriented approach are aimed at assisting programmers in writing clear, logical code for both small and large-scale projects. It supports a variety of programming paradigms, including structured (especially procedural) programming, object-oriented programming, and functional programming.

Sublime Text - Sublime Text is a shareware cross-platform source code editor with a Python application programming interface (API). It natively supports many programming languages and markup languages,

and functions can be added by users with plugins, typically community-built and maintained under free-software licenses. It is needed in this project as Jupyter notebook does not work well with graphic contents.

Flask – It is a web application framework written in Python. It is developed by Armin Ronacher, who leads an international group of Python enthusiasts named Pocco. Flask is based on the Werkzeug WSGI toolkit and Jinja2 template engine.

WSGI - Web Server Gateway Interface (WSGI) has been adopted as a standard for Python web application development. WSGI is a specification for a universal interface between the web server and the web applications.

2.3 HARDWARE AND SOFTWARE REQUIREMENTS

- Python 2.6, 2.7, or 3.3+ (required).
- Operating system: Linux- Ubuntu 16.04 to 17.10, or Windows 7 to 10, with 2GB RAM (4GB preferable).

Laptop / Desktop – Any Standard laptop / Desktop

2.4 FEASIBILITY STUDY

The system will be used in any hospital, clinic, dispensary or pathology labs. Clinic, dispensary or pathology to get the information from the patients and then storing that data for future usages. The current system in use is a paper based system. It is too slow and cannot provide updated lists of patients within reasonable timeframe. The intention of the system is to reduce over-time pay and increase the number of patients that can be treated accurately. Requirement statements in these documents are both functional and non-functional.

Chapter 3: SOFTWARE REQUIREMENT SPECIFICATIONS

3.1 USERS

Users would be able to connect with each other based on their needs and can help each other out onmonetary value.

3.2 FUNCTIONAL REQUIREMENTS

This system interface is divided into two section

Administrator interface.

Users interface.

Administrator can delete any post.

Administrator can verified user account.

User can browse all ads without any account.

For post an ad needs to create an account

User can update/edit their own account.

Log in and Log out system.

To create a new account user must be needs to verify his email with verification code.

If any user forget his/her password he/she can recovery his account with
verifying his email and create a new password.

3.2.1 System Requirements

The application should be installed into a device, system, or any machine in such a way that it should have basic requirements like supporting software and hardware of the device, accessing inbuilt software, say camera for mobile device, internet permissions, and potential security issues such as a virus or any malware detection. Laptops and Desktops are preferred devices.

3.3 NON FUNCTIONAL REQUIREMENTS

1. Speed

It is quick enough to process the input it's been fed, and able to give output swiftly

2. Secure

During the operation, systems is deployed which makes the app secure, and avoid any data leaks.

3. Data

The set of data that is involved in any project is defined using data requirements. For this project, the main data required is the user face data for his/her identification, movie data for better recommendation, e-book pdfs and customization specifications other data are already included with the packages and modules installed.

4. Performance

When creating any system, performance needs such as response speed, scalability, platform dependencies, and tolerance are taken into account. When the user interacts with the programme, the application or system can reply swiftly. The application is built in such a way that it is scalable enough to accommodate additional features as the program's complexity grows. The application met all of the project's software and hardware criteria throughout the design phase. In addition, the program's tolerance rate (fault tolerance) is higher in the event of network difficulties, connection issues, and when the application crashes or quits. It is able to deliver the information about any of those issues to the user when the system is no longer able to provide results when the user wants.

Chapter 4: SYSTEM ANALYSIS AND DESIGN

4.1 CONTEXT DIAGRAM (DFD)

The context diagram is the most abstract data flow representation of a system. It represents the entire system as a single bubble and the various external entities with which the system interacts and the data flows occurring between the system and the external entities are also represented. The name context diagram is well justified because it represents the context in which the system is to exist i.e. the external entities (users) that would interact with the system and specific data items they would be receiving from the system.

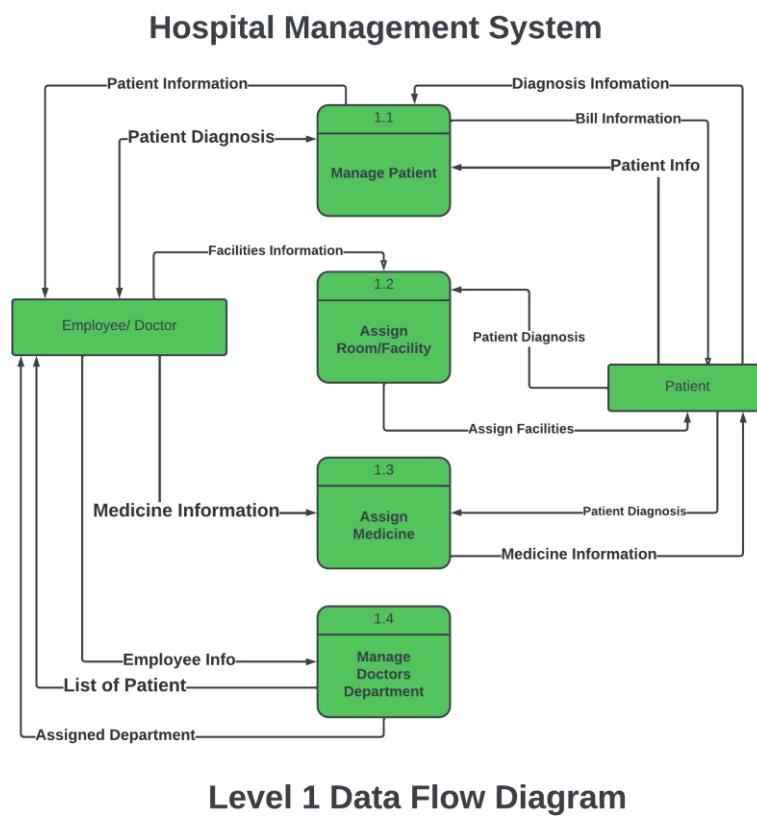


Figure-4.1 Level 1 DFD

The various external entities with which the system interacts and the data flows occurring between the system and the external entities are also represented. The name context diagram is well justified because it represents the context in which the system is to exist i.e. the external entities (users) that would interact with the system and specific data items they would be receiving from the system.

4.2 USE CASE DIAGRAM(USD)

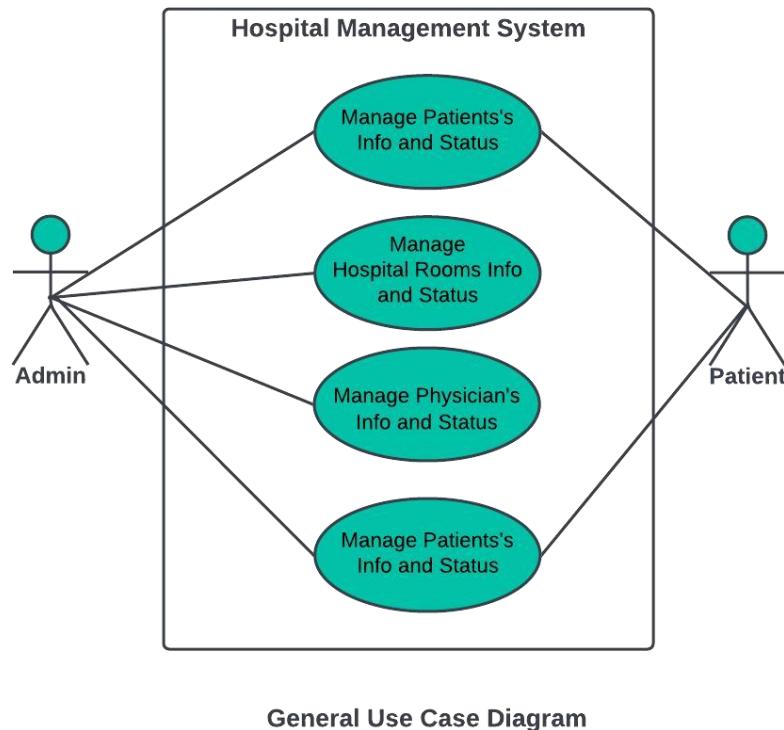


Figure-4.2 Use Case Diagram

A use case diagram is used to represent the dynamic behavior of a system. It encapsulates the system's functionality by incorporating use cases, actors, and their relationships. It models the tasks, services, and functions required by a system/subsystem of an application. It depicts the high-level functionality of a system and also tells how the user handles a system.

4.3 SEQUENCE DIAGRAM

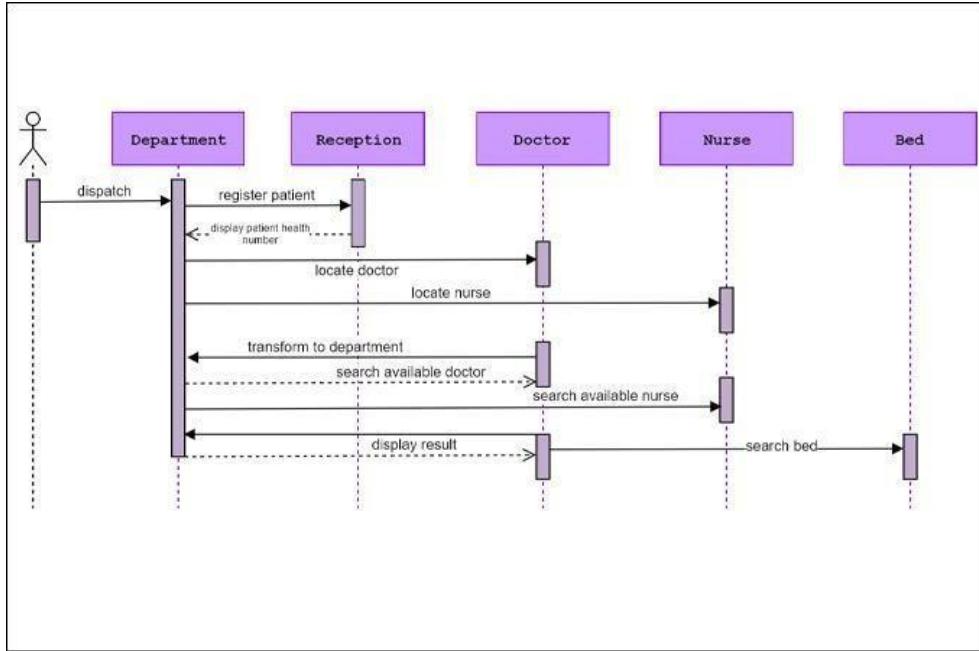


Figure-4.3 Sequence diagram

A sequence diagram or system sequence diagram (SSD) shows object interactions arranged in time sequence in the field of software engineering. It depicts the objects involved in the scenario and the sequence of messages exchanged between the objects needed to carry out the functionality of scenario. Sequence diagrams are typically associated with use case realizations in the logical view of the system under development. Sequence diagrams are sometimes called event diagrams or event scenarios.

Chapter 5: IMPLEMENTATION

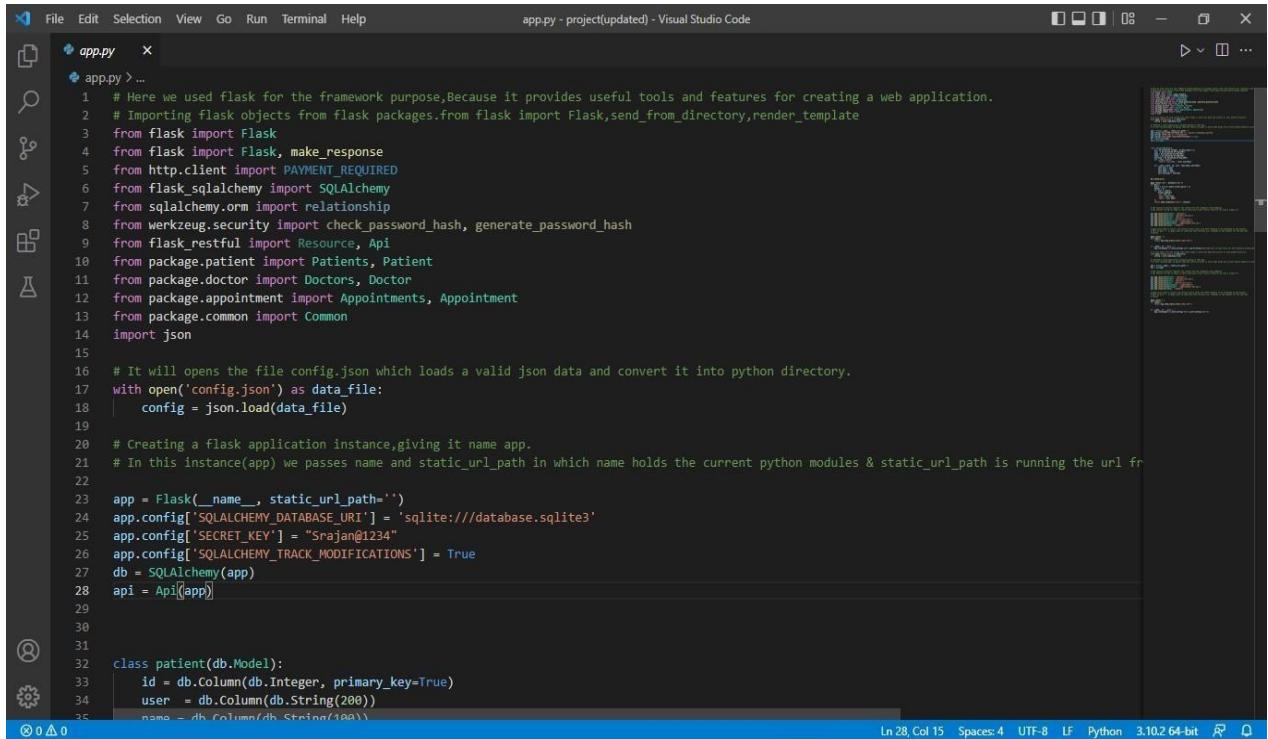
5.1 METHODOLOGY

The process of having system personnel check out and supply new equipment, instruct the user on how to install a new programme, and generate any data files needed to use it is known as implementation. There are three different approaches to implementation. Replacement of a manual system by a computer system. Covering data, educating users, producing correct files, and checking printouts for integrity are some of the issues experienced. Replacement of an old computer system with a new one. Normally, this is a tough conversion. If not properly planned, there can be many problems. So large computer system may take as long as a year to convert. Implementation of a modified application to replace the existing one using the same computer. This type of conversion is relatively easy to handle, usually there are no major changes in the file. Our project is yet to be implemented.

5.2 IMPLEMENTATION ENVIRONMENT

The real-world manifestation of processing functions and information structures is depicted in the implementation perspective of software requirements. This computerised system is designed in such a way that specific implementation requirements must be accommodated. The designed system's implementation environment allows several users to utilise it at the same time. The user interfaces are created with the assumption that the system's users are experienced with GUI-based systems. As a result, we limited ourselves to designing a GUI-based system in order to make it easier for the end user to become familiar with the built system.

5.3 SNIPPETS

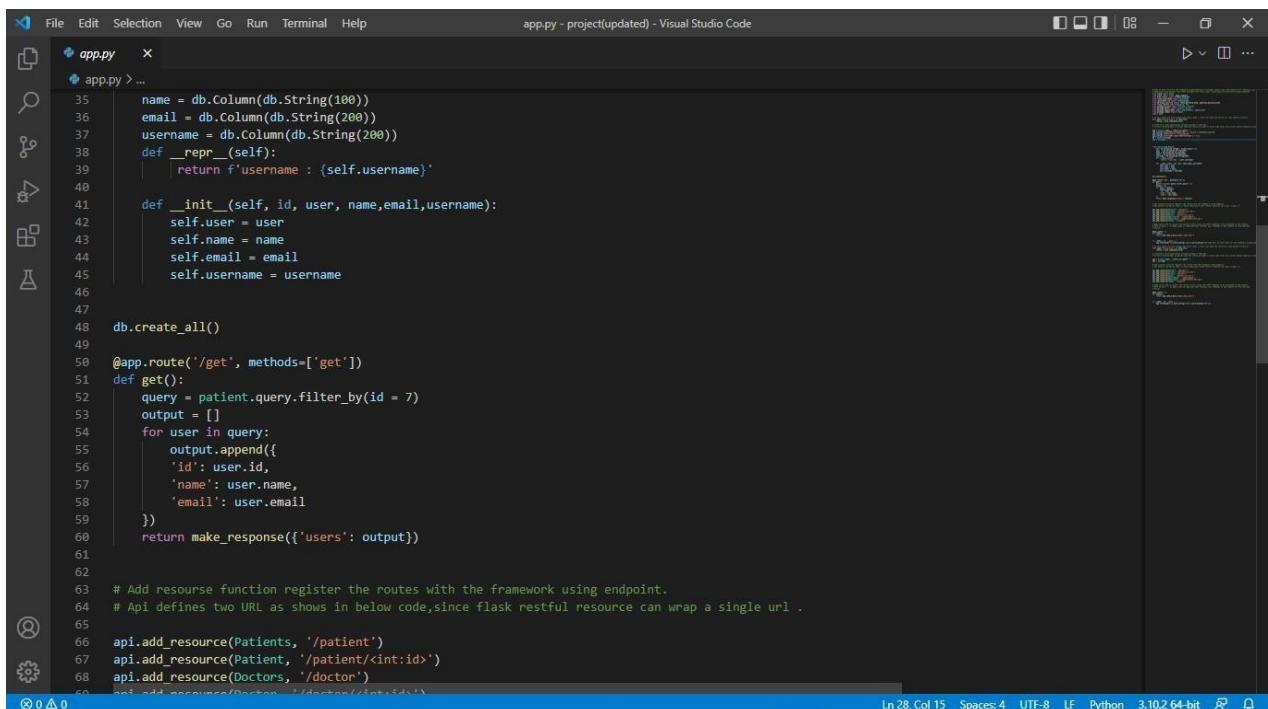


```

File Edit Selection View Go Run Terminal Help app.py - project(updated) - Visual Studio Code
app.py > ...
1 # Here we used flask for the framework purpose,Because it provides useful tools and features for creating a web application.
2 # Importing flask objects from flask packages.from flask import Flask,send_from_directory,render_template
3 from flask import Flask
4 from flask import Flask, make_response
5 from http.client import PAYMENT_REQUIRED
6 from flask_sqlalchemy import SQLAlchemy
7 from sqlalchemy.orm import relationship
8 from werkzeug.security import check_password_hash, generate_password_hash
9 from flask_restful import Resource, Api
10 from package.patient import Patients, Patient
11 from package.doctor import Doctors, Doctor
12 from package.appointment import Appointments, Appointment
13 from package.common import Common
14 import json
15
16 # It will opens the file config.json which loads a valid json data and convert it into python directory.
17 with open('config.json') as data_file:
18     config = json.load(data_file)
19
20 # Creating a flask application instance,giving it name app.
21 # In this instance(app) we passes name and static_url_path in which name holds the current python modules & static_url_path is running the url for
22
23 app = Flask(__name__, static_url_path='')
24 app.config['SQLALCHEMY_DATABASE_URI'] = 'sqlite:///database.sqlite3'
25 app.config['SECRET_KEY'] = "Srajan@1234"
26 app.config['SQLALCHEMY_TRACK_MODIFICATIONS'] = True
27 db = SQLAlchemy(app)
28 api = Api(app)
29
30
31
32 class patient(db.Model):
33     id = db.Column(db.Integer, primary_key=True)
34     user = db.Column(db.String(200))
35     name = db.Column(db.String(100))
36     email = db.Column(db.String(200))
37     username = db.Column(db.String(200))
38     def __repr__(self):
39         return f'username : {self.username}'
40
41     def __init__(self, id, user, name,email,username):
42         self.user = user
43         self.name = name
44         self.email = email
45         self.username = username
46
47
48 db.create_all()
49
50 @app.route('/get', methods=['get'])
51 def get():
52     query = patient.query.filter_by(id = 7)
53     output = []
54     for user in query:
55         output.append({
56             'id': user.id,
57             'name': user.name,
58             'email': user.email
59         })
60     return make_response({'users': output})
61
62
63 # Add resource function register the routes with the framework using endpoint.
64 # Api defines two URL as shows in below code,since flask restful resource can wrap a single url .
65
66 api.add_resource(Patients, '/patient')
67 api.add_resource(Patient, '/patient<int:id>')
68 api.add_resource(Doctors, '/doctor')
69 api.add_resource(Doctor, '/doctor<int:id>')

```

Figure 5.1: Screenshot #1 – Modules, packages and libraries (Import Statements)

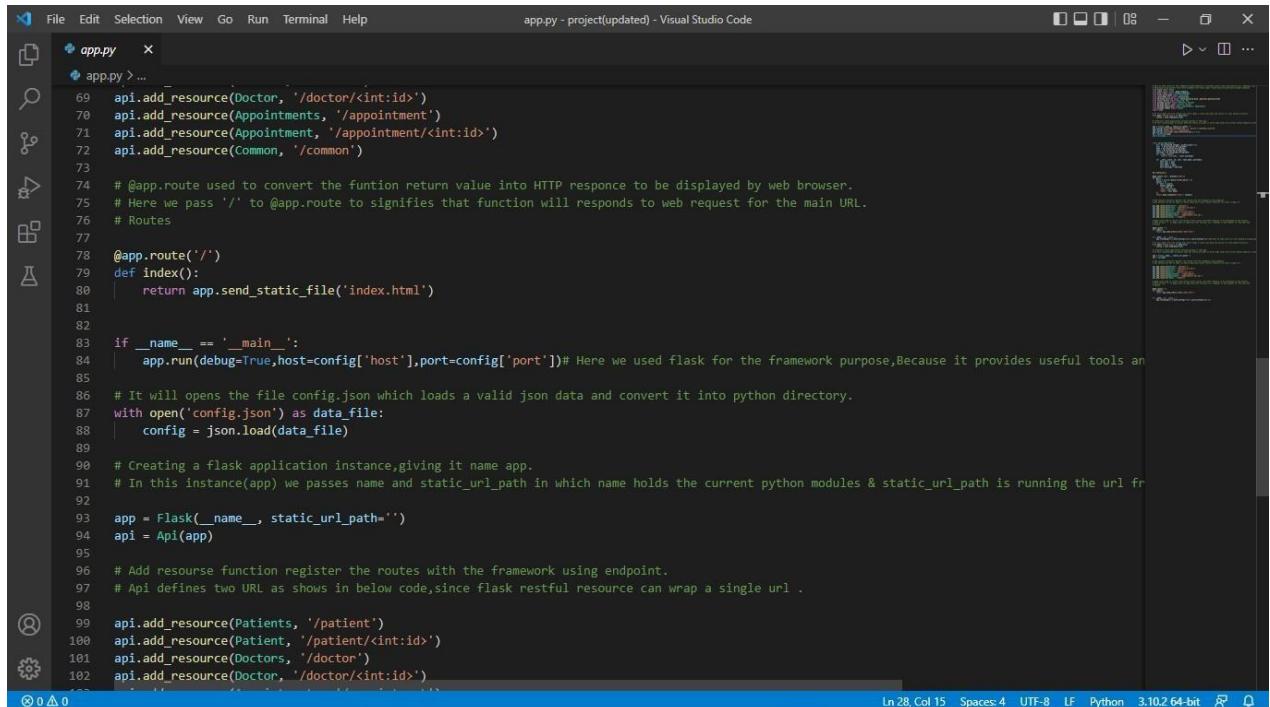


```

File Edit Selection View Go Run Terminal Help app.py - project(updated) - Visual Studio Code
app.py > ...
1 # Here we used flask for the framework purpose,Because it provides useful tools and features for creating a web application.
2 # Importing flask objects from flask packages.from flask import Flask,send_from_directory,render_template
3 from flask import Flask
4 from flask import Flask, make_response
5 from http.client import PAYMENT_REQUIRED
6 from flask_sqlalchemy import SQLAlchemy
7 from sqlalchemy.orm import relationship
8 from werkzeug.security import check_password_hash, generate_password_hash
9 from flask_restful import Resource, Api
10 from package.patient import Patients, Patient
11 from package.doctor import Doctors, Doctor
12 from package.appointment import Appointments, Appointment
13 from package.common import Common
14 import json
15
16 # It will opens the file config.json which loads a valid json data and convert it into python directory.
17 with open('config.json') as data_file:
18     config = json.load(data_file)
19
20 # Creating a flask application instance,giving it name app.
21 # In this instance(app) we passes name and static_url_path in which name holds the current python modules & static_url_path is running the url for
22
23 app = Flask(__name__, static_url_path='')
24 app.config['SQLALCHEMY_DATABASE_URI'] = 'sqlite:///database.sqlite3'
25 app.config['SECRET_KEY'] = "Srajan@1234"
26 app.config['SQLALCHEMY_TRACK_MODIFICATIONS'] = True
27 db = SQLAlchemy(app)
28 api = Api(app)
29
30
31
32 class patient(db.Model):
33     id = db.Column(db.Integer, primary_key=True)
34     user = db.Column(db.String(200))
35     name = db.Column(db.String(100))
36     email = db.Column(db.String(200))
37     username = db.Column(db.String(200))
38     def __repr__(self):
39         return f'username : {self.username}'
40
41     def __init__(self, id, user, name,email,username):
42         self.user = user
43         self.name = name
44         self.email = email
45         self.username = username
46
47
48 db.create_all()
49
50 @app.route('/get', methods=['get'])
51 def get():
52     query = patient.query.filter_by(id = 7)
53     output = []
54     for user in query:
55         output.append({
56             'id': user.id,
57             'name': user.name,
58             'email': user.email
59         })
60     return make_response({'users': output})
61
62
63 # Add resource function register the routes with the framework using endpoint.
64 # Api defines two URL as shows in below code,since flask restful resource can wrap a single url .
65
66 api.add_resource(Patients, '/patient')
67 api.add_resource(Patient, '/patient<int:id>')
68 api.add_resource(Doctors, '/doctor')
69 api.add_resource(Doctor, '/doctor<int:id>')

```

Figure 5.2: Screenshot #2

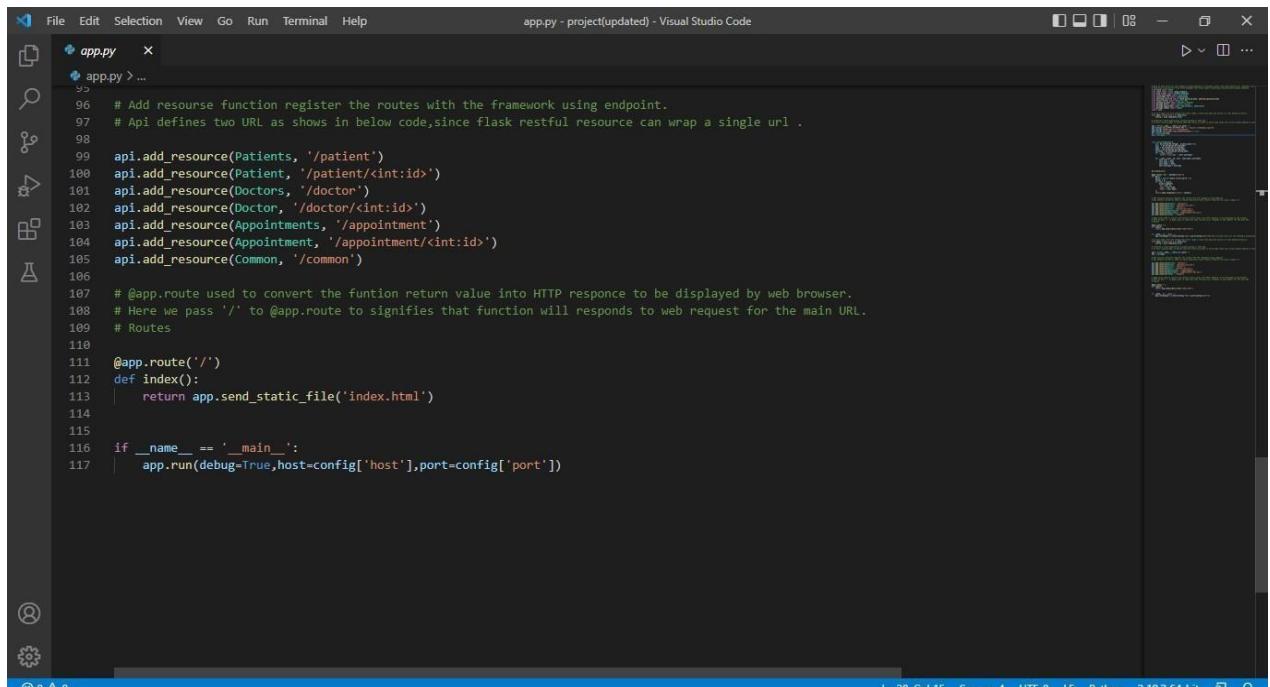


```

  File  Edit  Selection  View  Go  Run  Terminal  Help
app.py - project(updated) - Visual Studio Code
  File  Edit  Selection  View  Go  Run  Terminal  Help
  app.py > ...
  69  api.add_resource(Doctor, '/doctor/<int:id>')
  70  api.add_resource(Appointments, '/appointment')
  71  api.add_resource(Appointment, '/appointment/<int:id>')
  72  api.add_resource(Common, '/common')
  73
  74  # @app.route used to convert the function return value into HTTP response to be displayed by web browser.
  75  # Here we pass '/' to @app.route to signifies that function will respond to web request for the main URL.
  76  # Routes
  77
  78  @app.route('/')
  79  def index():
  80      return app.send_static_file('index.html')
  81
  82
  83  if __name__ == '__main__':
  84      app.run(debug=True, host=config['host'], port=config['port'])# Here we used flask for the framework purpose,Because it provides useful tools an
  85
  86  # It will open the file config.json which loads a valid json data and convert it into python directory.
  87  with open('config.json') as data_file:
  88      config = json.load(data_file)
  89
  90  # Creating a flask application instance,giving it name app.
  91  # In this instance(app) we passes name and static_url_path in which name holds the current python modules & static_url_path is running the url fr
  92
  93  app = Flask(__name__, static_url_path='')
  94  api = Api(app)
  95
  96  # Add resource function register the routes with the framework using endpoint.
  97  # Api defines two URL as shown in below code,since flask restful resource can wrap a single url .
  98
  99  api.add_resource(Patients, '/patient')
 100 api.add_resource(Patient, '/patient/<int:id>')
 101 api.add_resource(Doctors, '/doctor')
 102 api.add_resource(Doctor, '/doctor/<int:id>')
 103
 104
 105
 106
 107
 108
 109
 110
 111
 112
 113
 114
 115
 116  if __name__ == '__main__':
 117      app.run(debug=True, host=config['host'], port=config['port'])

```

Figure 5.3: Screenshot #3



```

  File  Edit  Selection  View  Go  Run  Terminal  Help
app.py - project(updated) - Visual Studio Code
  File  Edit  Selection  View  Go  Run  Terminal  Help
  app.py > ...
  95
  96  # Add resource function register the routes with the framework using endpoint.
  97  # Api defines two URL as shown in below code,since flask restful resource can wrap a single url .
  98
  99  api.add_resource(Patients, '/patient')
 100 api.add_resource(Patient, '/patient/<int:id>')
 101 api.add_resource(Doctors, '/doctor')
 102 api.add_resource(Doctor, '/doctor/<int:id>')
 103 api.add_resource(Appointments, '/appointment')
 104 api.add_resource(Appointment, '/appointment/<int:id>')
 105 api.add_resource(Common, '/common')
 106
 107  # @app.route used to convert the function return value into HTTP response to be displayed by web browser.
 108  # Here we pass '/' to @app.route to signifies that function will respond to web request for the main URL.
 109  # Routes
 110
 111  @app.route('/')
 112  def index():
 113      return app.send_static_file('index.html')
 114
 115
 116  if __name__ == '__main__':
 117      app.run(debug=True, host=config['host'], port=config['port'])

```

Figure 5.4: Screenshot #4



Figure 5.5: Screenshot #5

Figure 5.6: Screenshot #6

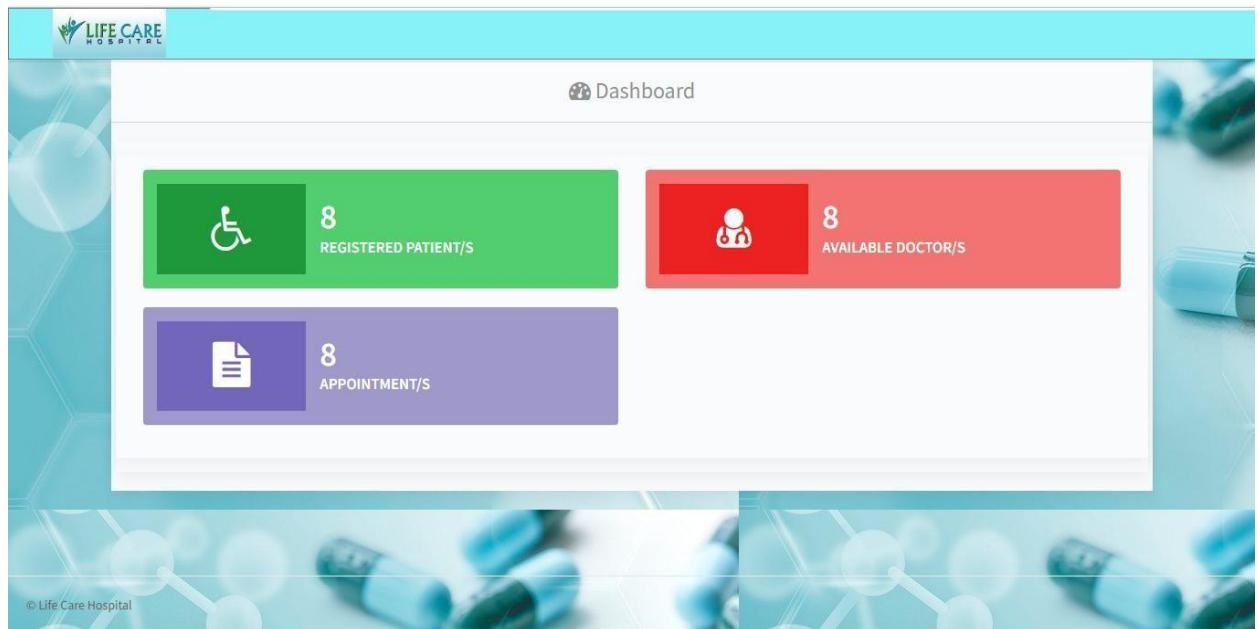


Figure 5.7: Screenshot #7

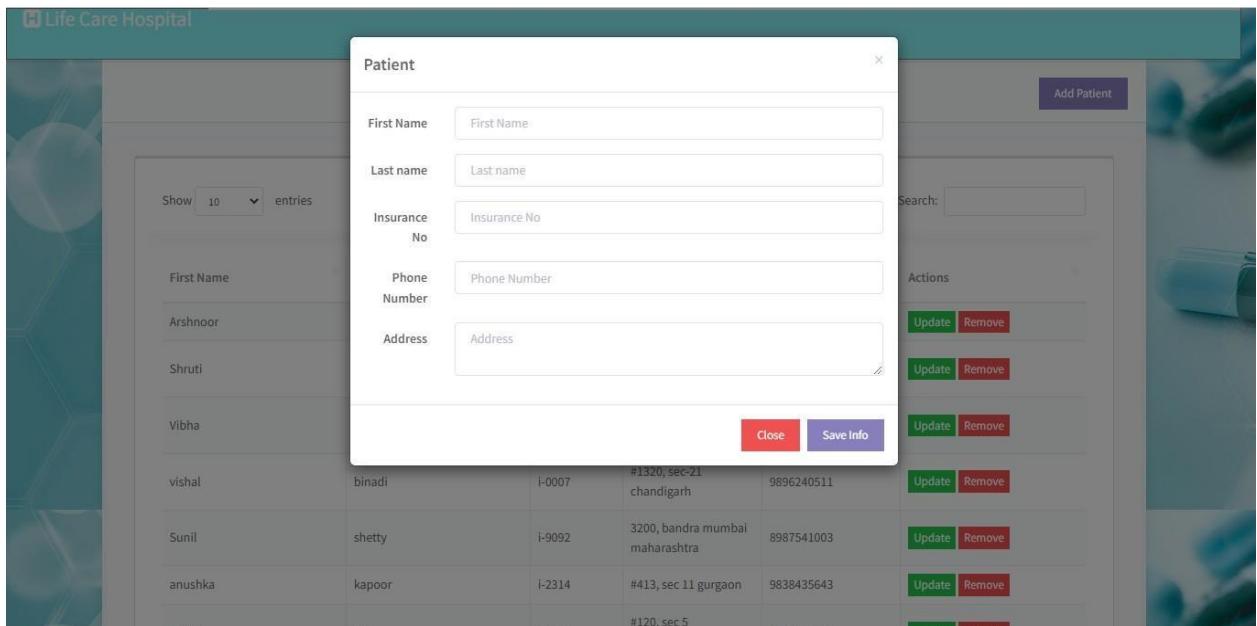


Figure 5.8: Screenshot #8

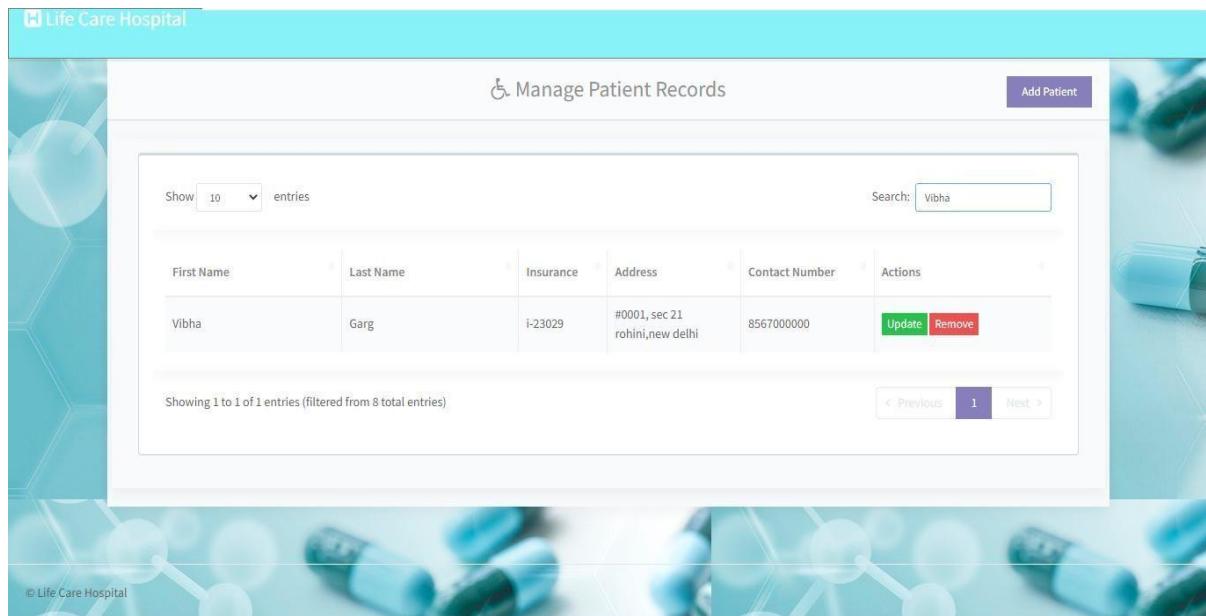


Figure 5.9: Screenshot #9

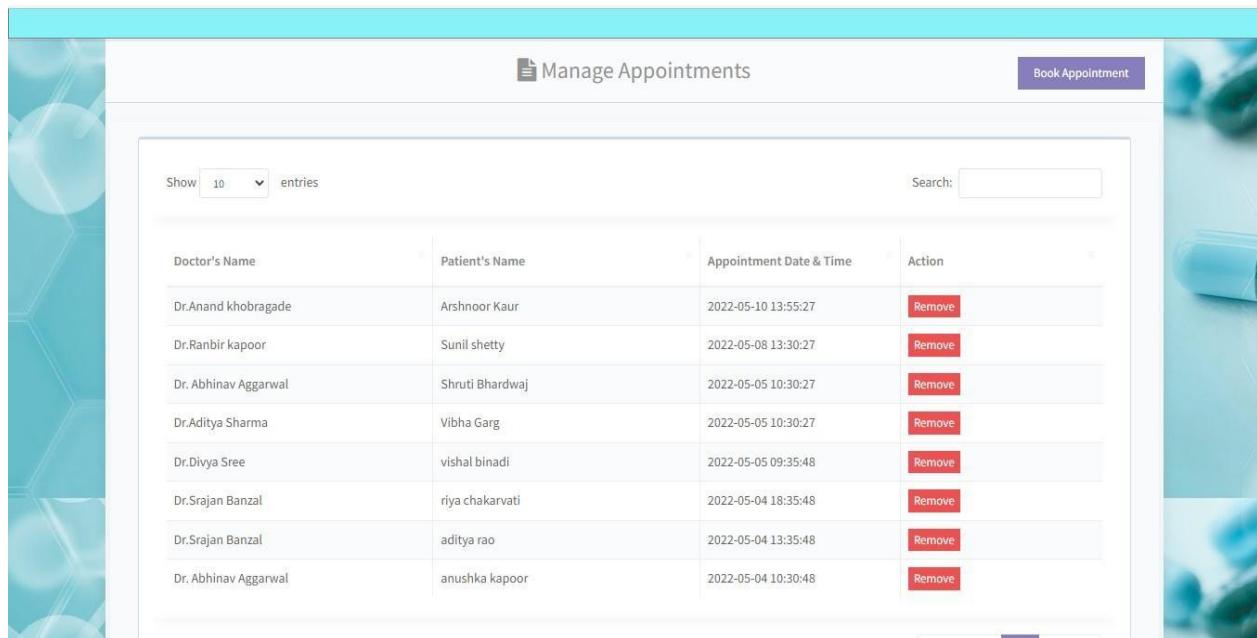


Figure 5.10: Screenshot #10

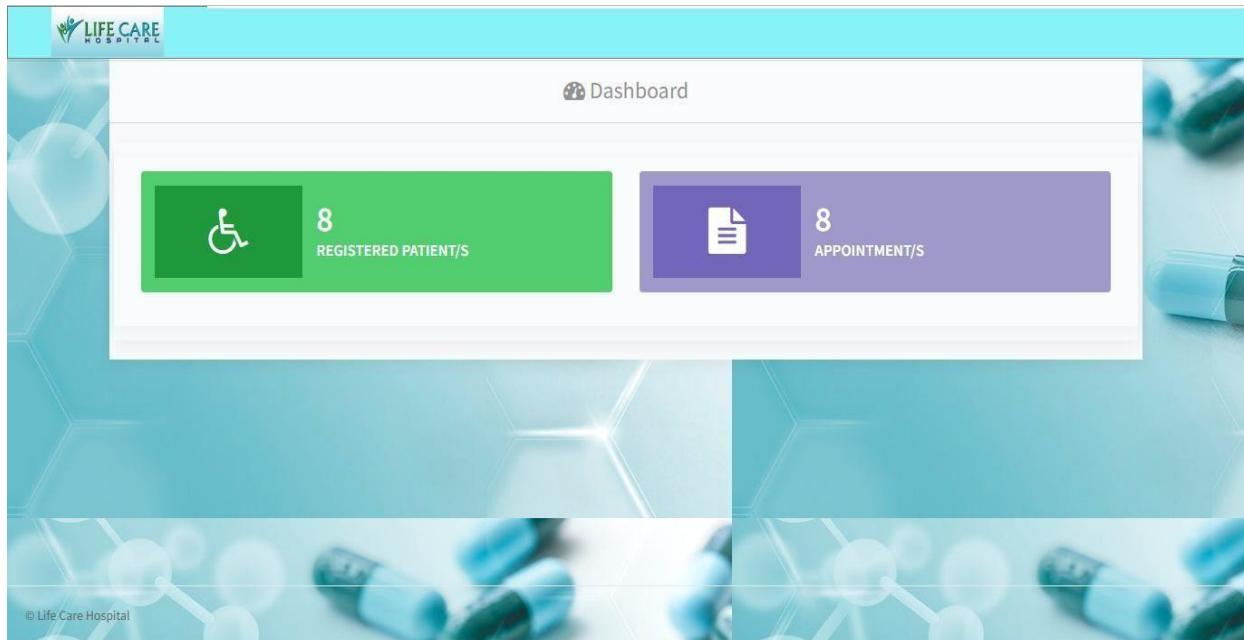


Figure 5.11: Screenshot #11

Chapter 6: RESULT

This project has been a rewarding experience in more than one way. The entire project work has enlightened us in the following areas.

- a) We have gained an insight into the working of the hospital. This represents typical real world situation.
- b) Our understanding of database design has been strengthened in order to generate the final reports of database designing has to be properly followed.
- c) Scheduling a project and adhering to that schedule creates a strong sense of time management.
- d) Sense of teamwork has developed and confidence of handling real life project has increased to a great extent.
- e) Initially, there were problems with the validation but with discussions, we were able to implement validations.

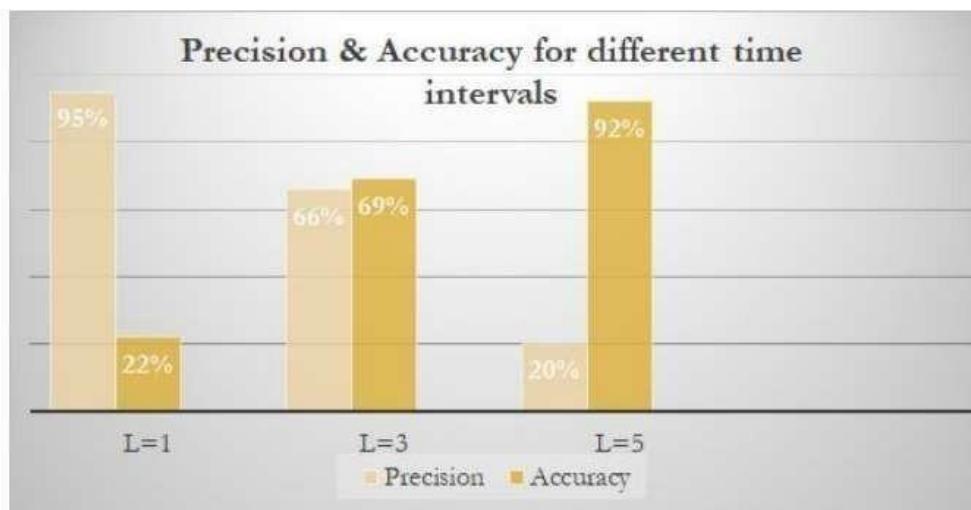


Figure 6.1: Precision and accuracy graph for different time intervals

Chapter 7: CONCLUSION

- We have gained an insight into the working of the hospital. This represents a typical realworld situation.
- Our understanding of database design has been strengthened this is because in order to generatethefinal reports of database designing has to be properly followed.
- Scheduling a project and adhering to that schedule creates a strong sense of time management.
- Sense of teamwork has developed and confidence of handling real life project has increased to a great extent.
- Initially, there were problem with the validation but with discussions, we were to implement validations.

Chapter 8: FUTURE ENHANCEMENTS

The project may be enhanced from a variety of angles, including the usage of several APIs for ASR implementation and selecting the optimal one. In addition, the programme takes a long time to process huge video files, which may be improved by tweaking the algorithm. Additionally, the technology may be installed and used by video streaming websites and applications, particularly if searching or web crawling operations are undertaken, allowing users to locate material in both text and video formats.

This project may also be implemented in a variety of languages. To do so, first develop transcripts and timestamp mapping in multiple languages, then translate (Google translation may be used), and last build the project, which will allow users to search any material in any language in a video in the same or another language.

CHAPTER 9: REFERENCES

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- Learning Python - Mark Lutz

[27]YouTube Channels referred

- CS Dojo
- edureka!

CHAPTER 10:APPENDICES

10.1 FPR Report for January Month

FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR

Name of student	Anisha Soni		Department	Computer Science	
Industry/Organization	TechCiti Software Consulting Pvt Ltd		Date/Duration	Jan 2022	
Criterion	Poor	Average	Good	Very Good	Excellent
Punctuality/Timely completion of assigned work				✓	
Learning capacity/Knowledge up gradation				✓	
Performance/Quality of work				✓	
Behaviour/Discipline/Team work					✓
Sincerity/Hard work				✓	
Comment on nature of work done/Area/Topic	Good performance during the internship				
OVERALL GRADE (Any one)	POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT				
Name of Industry Mentor	Prakash Patel				
Signature of Industry Mentor					

Receiving Date		Name of Faculty Mentor	Khusboo Agarwal	Sign	
----------------	--	------------------------	-----------------	------	---

10.2 FPR Report for February month

FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR

Name of student	Anisha Soni		Department	Computer Science	
Industry/Organization	TechCiti Software Consulting Pvt Ltd		Date/Duration	Feb 2022	
Criterion	Poor	Average	Good	Very Good	Excellent
Punctuality/Timely completion of assigned work			✓		
Learning capacity/Knowledge up gradation				✓	
Performance/Quality of work				✓	
Behaviour/Discipline/Team work					✓
Sincerity/Hard work				✓	
Comment on nature of work done/Area/Topic	Good performance during the internship				
OVERALL GRADE (Any one)	POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT				
Name of Industry Mentor	Prakash Patel				
Signature of Industry Mentor					

Receiving Date		Name of Faculty Mentor	Khusboo Agarwal	Sign	
----------------	--	------------------------	-----------------	------	---

10.4 FPR Report for April month

FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR

Name of student	Anisha Soni		Department	Computer Science	
Industry/Organization	TechCiti Software Consulting Pvt Ltd		Date/Duration	April 2022	
Criterion	Poor	Average	Good	Very Good	Excellent
Punctuality/Timely completion of assigned work			✓		
Learning capacity/Knowledge up gradation				✓	
Performance/Quality of work				✓	
Behaviour/Discipline/Team work					✓
Sincerity/Hard work				✓	
Comment on nature of work done/Area/Topic	Good performance during the internship				
OVERALL GRADE (Any one)	POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT				
Name of Industry Mentor	Prakash Patel				
Signature of Industry Mentor					

Receiving Date		Name of Faculty Mentor	Khusboo Agarwal	Sign	
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10.3 FPR Report for March month

FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR

Name of student	Anisha Soni		Department	Computer Science	
Industry/Organization	TechCiti Software Consulting Pvt Ltd		Date/Duration	March 2022	
Criterion	Poor	Average	Good	Very Good	Excellent
Punctuality/Timely completion of assigned work			✓		
Learning capacity/Knowledge up gradation					✓
Performance/Quality of work				✓	
Behaviour/Discipline/Team work					✓
Sincerity/Hard work				✓	
Comment on nature of work done/Area/Topic	Good performance during the internship				
OVERALL GRADE (Any one)	POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT				
Name of Industry Mentor	Prakash Patel				
Signature of Industry Mentor					

Receiving Date		Name of Faculty Mentor	Khusboo Agarwal	Sign	
----------------	--	------------------------	-----------------	------	---