

# **FRONT DESK ASSISTANT**

*A Project Report*

*submitted in partial fulfillment for the requirements of the award of the*

*degree of*

**BACHELOR OF TECHNOLOGY**

**IN**

**INFORMATION TECHNOLOGY**

**Submitted by**

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**Session 2019-20**

# DECLARATION

I declare that

- a. The work contained in this report is original and has been done by us under the guidance of our supervisor.
- b. The work has not been submitted to any other institute for any degree or diploma.
- c. I have followed the guidelines provided by the institute to prepare the report.
- d. I have conformed to the norms and guidelines given in the ethical code of conduct of the institute.
- e. Wherever I have used materials (data, theoretical analysis, figures and text) from other sources, I have given due credit to them by citing them in the text of the report and giving their details in the references.

Signature of the student

Name: VIKAL RATHI

Roll number: 1602913123

Place: KIET Group of Institutions, Ghaziabad

Date:

## **CERTIFICATE**

This is to certify that the project entitled “FRONT DESK ASSISTANT” , submitted by Vikal Rathi in the Department of Information Technology of KIET Group of Institutions, Ghaziabad, affiliated to Dr. A. P. J. Abdul Kalam Technical University, Lucknow, Uttar Pradesh, India, is a record of bonafide project work carried out by her under my supervision and guidance and is worthy of consideration for the award of the degree of Bachelor of Technology in Information Technology of the Institute.

**Signature of Supervisor:**

**Name of Supervisor:** Dr. Ajay Agarwal

**Date:**

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## **List of acronyms**

- FDA -Front Desk Assistant
- API -Application Program Interface
- WWW - World Wide web
- HTML - Hyper Text Markup Language
- GUI - Graphical User Interface
- DFD - Data Flow Diagram
- ERD - Entity Relationship Diagram

## **Abstract**

This project aims at smartly storing and updating the visitor's details for any institution when a visitor visits the place his/her details will be fetched/extracted from the adhaar card through our mobile application. Details then will be submitted to the database and will be automatically shown on the desktop of the receptionist, the variable fields like "reason of visit", "whom to meet", will be entered by the receptionist and the data will be saved. When the user will visit again, there is now no need of rescanning the adhaar as the user was already created at the first visit, searching through UID (Adhaar ID) will display the user and the variable fields can be changed according to the need, the count of the visits will be incremented. The admin section is used to create receptionist, and generate an overall report of the visitors. Our objective is to bring a change in society by automating the process of registration and reducing paper usage at any institutions by Front Desk Assistant(FDA).

# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 Introduction**

The purpose of this document is to present a detailed description and requirements of the Web Application which shall be used for registration at an institute or an organization. It will explain the purpose and features of the system, the requirements of the system, the interfaces of the system, what the system will do and the constraints under which it must operate. This document is intended for both the admin and the operator (receptionist). It also tells us about the assumptions we have made to make this web application and the languages and platforms that it uses for the development of the application. It contains various figures such as system process flow diagram, block diagram and screen layouts of different web pages that we have in our web application.

#### **1.1.1 Scopes**

##### **1.1.1.1 In Scope:**

We describe what features are in the scope of the software and what are not in the scope of the software to be developed.

1. Module to do registration of (first time) visitor by scanning Aadhar card and extracting details.
2. Module to prevent re-registration of people that have already visited once.
3. Already registered users should be recognized by key-words searches such as Name and Phone Number.
4. Module to update information (if changed) of already registered user.
5. Module to migrate the user data from some old system to this new system
6. Module to generate the various kinds of reports of interest for admin for last 3 months of data.
7. Module for user management by admin

##### **1.1.1.2 Out of Scope:**

1. It cannot be used for the registration of Faculty/Administration/Staff-members/Students.
2. The software is not using technology like face recognition, biometric sensor for checking the fake identification of visitors

### **1.2 Problem Definition**

A very common phenomenon observed in our daily life is that whenever we go to an organisation/Institution we write down our name and contact details and every time we visit we have to repeat the same process, as the old records are lost. In similar manner, the notebooks in which the registration is done is lost sometimes ,so the data is lost and maintaining copies of registration is difficult .So there is need of a platform to help to handle this situation.



### **1.3 Project Overview**

This project aims at smartly storing and updating the visitor's details. This is achieved by extracting details from the **Aadhar Card**. The proposed Smart FDA will take care of the registration of the visitor's details at the time of their visit. This system is for recording the visitors' log. When a visitor visits the organization, number of their visits will be updated accordingly.

### **1.4 Objective:**

The website is developed

- To minimize the wastage of resource like Paper.
- To provide a secure medium for exchange of resources by maintaining the privacy of users.
- To develop web application for doing user registration at Front Desk/Reception

### **1.5 Motivation:**

A very common phenomenon observed in our daily life is wastage of resources at different institutions, With everyday writing in a notebook when we go to any institutions, We have intended to solve this issue to some extent with the help of our website and mobile application, Our website offers a platform to the institutions to register users easily and manage the records easily. With actors Visitors, Receptionist, Admin.

## **CHAPTER 2**

### **FEASIBILITY STUDY**

#### **2.1 Existing System**

In existing systems, we found that there are few institutions which are using their own registration system medium but most of the institutions are still using pen paper based registration system only. There is no diverse platform which can provide the automation of the current pen paper based registration, and issue with the existing system is they are institution based and are not available for all.

#### **2.2 Proposed System**

This Proposed system is designed to provide an application and a platform which is free and will be available to all the institutions. Our website offers a platform to the institutions to register users easily and manage the records easily. With actors Visitors, Receptionist, Admin. This is achieved by extracting details from the **Aadhar Card**. The proposed Smart FDA will take care of the registration of the visitor's details at the time of their visit. This system is for recording the visitors' log. When a visitor visits the organization, number of their visits will be updated accordingly.

#### **2.3 Feasibility**

Feasibility Study is a preliminary study undertaken to determine and document a project's viability. The term feasibility study is also used to refer to the resulting document. These results of this study are used to make a decision whether to proceed with the project, or table it. If it indeed leads to a project being approved, it will – before the real work of the proposed project starts – be used to ascertain the likelihood of the project's success. It is an analysis of possible alternative solutions to a problem and a recommendation on the best alternative.

##### **Operational Feasibility**

1. User understands our controls
2. User understands our symbols
3. User reads instructions and help messages

##### **Technical Feasibility**

This application can be easily used by anyone so any receptionist will be able to use this application. This is technically feasible as it is an application which can be easily downloaded from play store and the website can be used just going to the url.

## **Financial and Economic Feasibility**

This project is financially and economically feasible as an application and a web platform is needed to access this and any organization and institutions can easily afford it.

## **Organizational Feasibility**

This project is financially and economically feasible as an application and a web platform is needed to access this and any organization and institutions can easily afford it.

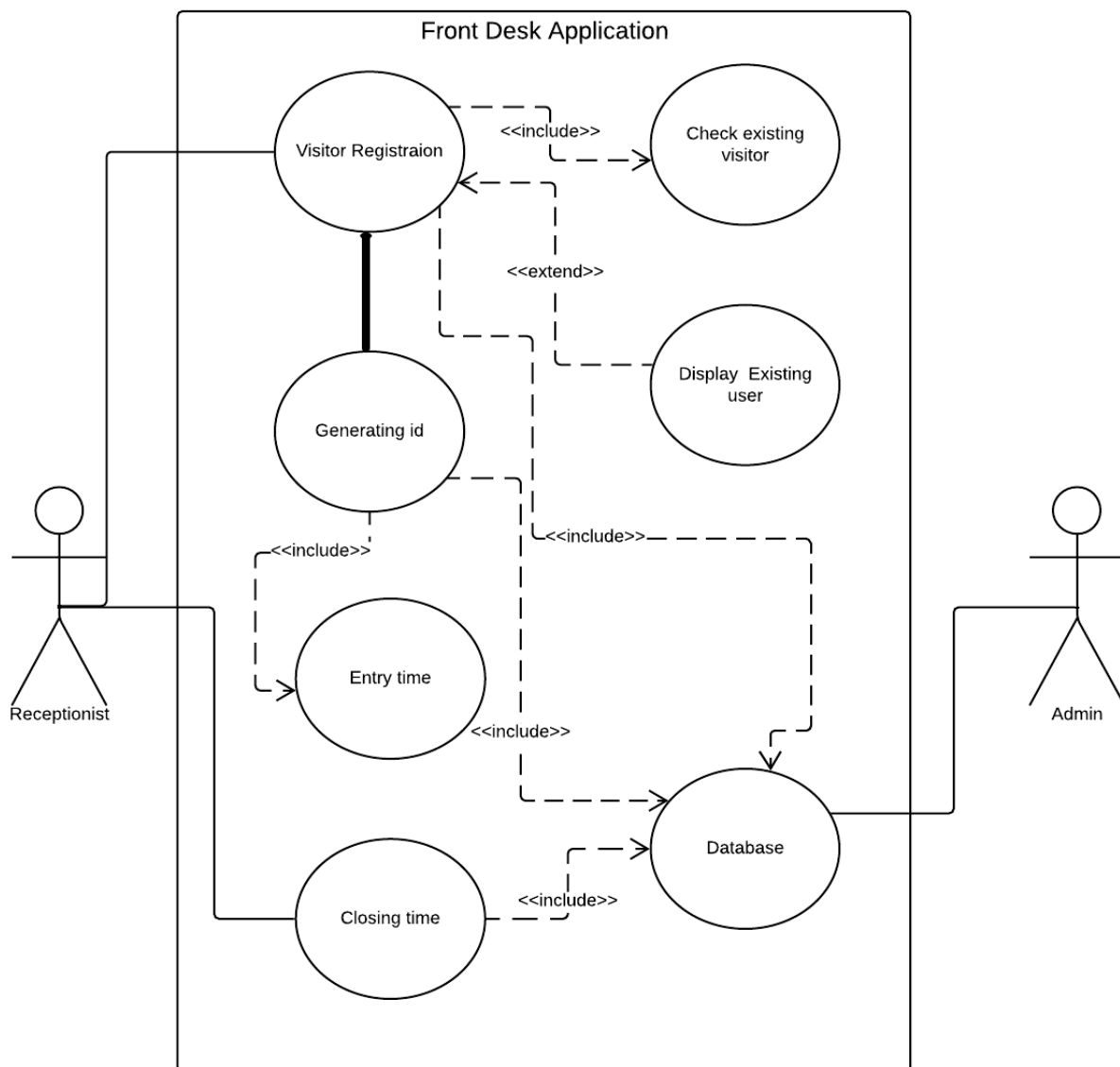
## CHAPTER 3

### SYSTEM ANALYSIS AND DESIGN

### 3.1 Requirement Analysis

#### 3.1.1 Functional Requirements

##### Home Page

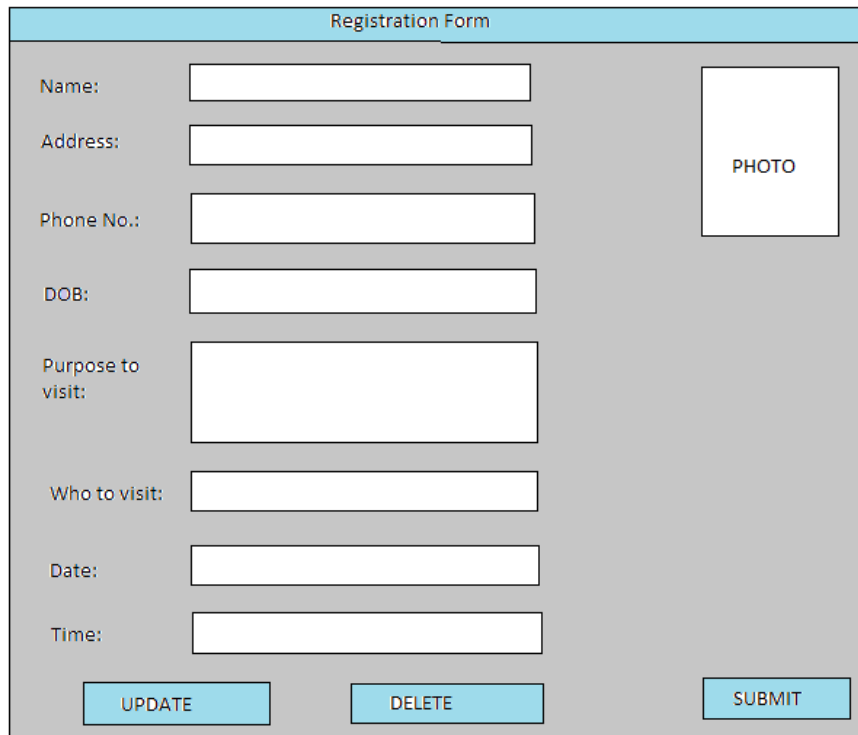


**Figure 3.1**

Figure 3.1 shows the flow Diagram of the project.

## Registration Page

### Overview



The image shows a web form titled "Registration Form" with a light blue header. The form has a light gray background. On the left, there are labels for "Name:", "Address:", "Phone No.:", "DOB:", "Purpose to visit:", "Who to visit:", "Date:", and "Time:". Each label is followed by a white input field. On the right side, there is a white box labeled "PHOTO". At the bottom of the form, there are three light blue buttons: "UPDATE", "DELETE", and "SUBMIT".

**Figure 3.2**

Figure 3.2 displays the Registration form

### Field Description

S.No	Item Name	Item Description	Field Type	Field Format	Length	Mandatory
1	Name	Name of the visitor	Text			
2	Address	Address of the visitor	Text			
3	Photo	Photo of the visitor	JPEG			
4	Phone No	Phone No of the visitor	Numeric			
5	DOB	DOB of the visitor	Date			
6	Purpose to visit	Reason to visit the organization	Text			
7	Date	Date of visiting	Date			
8	Time	Time of visit	Time			
9	Update	Update details	Button			
10	Submit	Submit registration form	Button			

**Table 3.1**

Table 3.1 shows the field description of the project

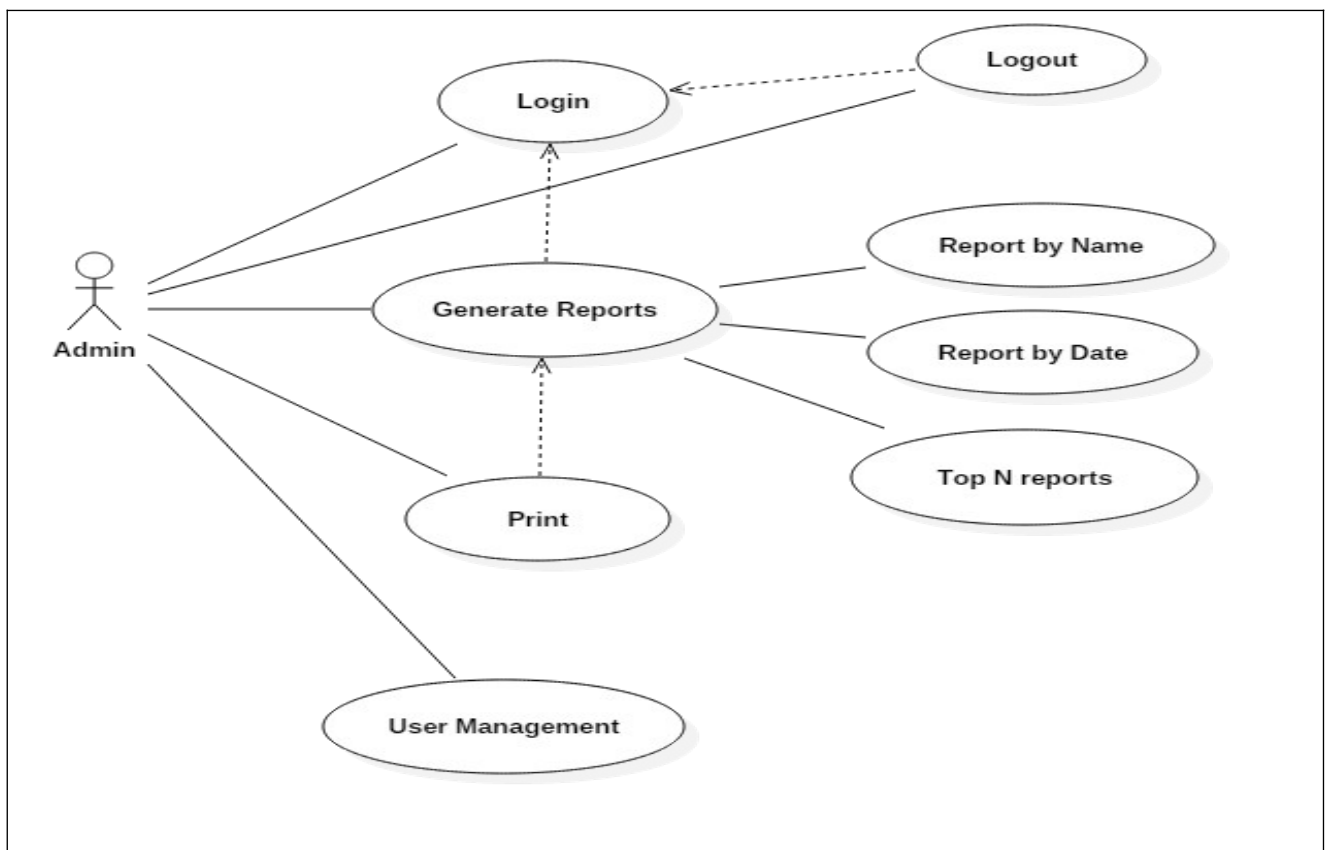
## Use Case

<b>Use Case ID:</b>	Registration Page
<b>Use Case Description</b>	Displays details of visitor and allows to update them
<b>Preconditions:</b>	Visitor must carry the Aadhar Card
<b>Normal Flow:</b>	Form is auto filled from the information extracted from the Aadhar Card
<b>Alternative Flows:</b>	Manual filling of information in case not extracted from the Aadhar Card
<b>Exceptions:</b>	1. Visitor not found. 2. New visitor does not carry Aadhar Card

**Table 3.2**

Table 3.2 shows the use case detail for registration section

## Admin Page



**Figure 3.3**

Figure 3.3 shows the use case diagram for the project

## Use Case

<b>Use Case ID:</b>	Admin Page
<b>Use Case Description</b>	Admin has privileges to extract timely reports based on the database of the organization.
<b>Preconditions:</b>	<ol style="list-style-type: none"><li>1. Admin must login.</li><li>2. Admin must know what kind of report is to be generated.</li></ol>
<b>Normal Flow:</b>	<ol style="list-style-type: none"><li>1. Admin inputs details to generate reports</li><li>2. Reports can be generated on the basis of intersection of two or more details provided by the admin.</li><li>3. Reports are generated</li><li>4. Reports are printed</li><li>5. New admins are created.</li></ol>
<b>Alternative Flows:</b>	No Alternative flow
<b>Exceptions:</b>	<ol style="list-style-type: none"><li>1. Admin enters wrong password</li><li>2. Details entered for report generation are incorrect</li></ol>

**Table 3.3**

Table 3.3 shows the use case details for admin section

### **3.1.2 Non Functional Requirements**

#### **Performance requirements**

The system shall respond to the member within 5-10 seconds from the time of the request submittal. The system shall be allowed to take more time when doing large processing jobs.

#### **Accuracy and Precision**

The system should accurately provide real time information taking into consideration various issues. The system shall provide access reliability in range of 99.0% to 99.9%.

#### **Reliability**

The system must be reliable due to the importance of data and the damages that can be caused by incorrect or incomplete data. The system will run continuously according to the timings of the organizations/institutions. The proper logging of data is maintained in a log file.

#### **Security**

The main security concern is for admin login as he can access critical information. Hence user name and password should be provided to authorized users by the organization to avoid information leak. The system should provide database's modification only for the receptionist (operator).

#### **Portability:**

The System is expected to run under MS Windows.

#### **Usability**

The system is easy to learn and easy to remember how to use. System control is intuitive so that the operator doesn't require to refer a manual frequently. The system uses a web browser as a user interface. The system is user friendly and will support English language only.

#### **Legal**

Personal information of the visitors should be protected like Phone number, Aadhaar number etc. and will not be shared with any outsider.



### 3.1.4 Hardware & Software Requirements

#### Hardware Requirements

Following is minimum hardware configuration required for deployment.

S. No.	Device name	Operating System	Configuration
1	Smart Phone	Android	Version 4.4+
2	Desktop	Windows	Version 7+ RAM 2GB Processor i2 Hard Disk 20GB

**Table 3.4**

Table 3.4 shows the hardware requirements for the project

#### Software Requirements

The software development platform & tools/ technologies used to develop the system are defined as below

Item	version	Description
MongoDB	4.0	Used as a database(NoSql)
JSON	2.2.0	Used primarily to transmit data between a server and database.
Django	2.0	Used as a framework for development of web app.
Visual Studio	16.1.3	Used as an IDE
XML	1.0	Used to transfer the visitor's information from android app to webserver.

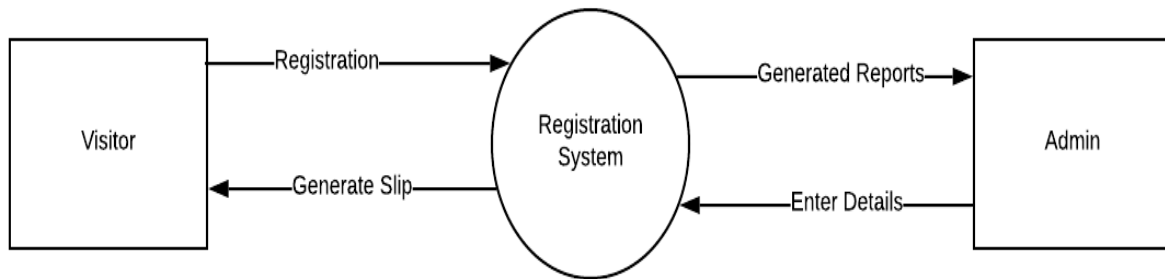
**Table 3.5**

Table 3.5 shows the software requirements of the project.

## **3.2 Diagrams**

### **3.2.1 Data Flow Diagram**

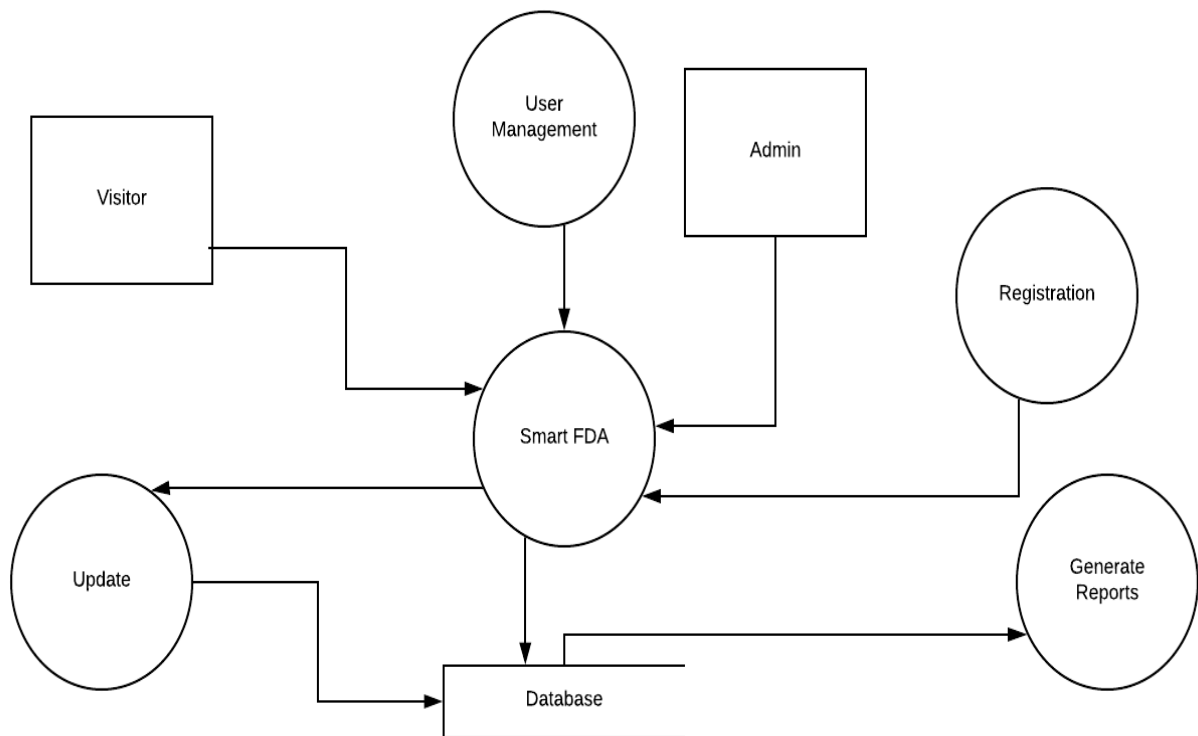
#### **Level 0 Data Flow Diagram**



**Figure 3.4**

The Figure 3.4 shows the Level 0 Data Flow diagram.

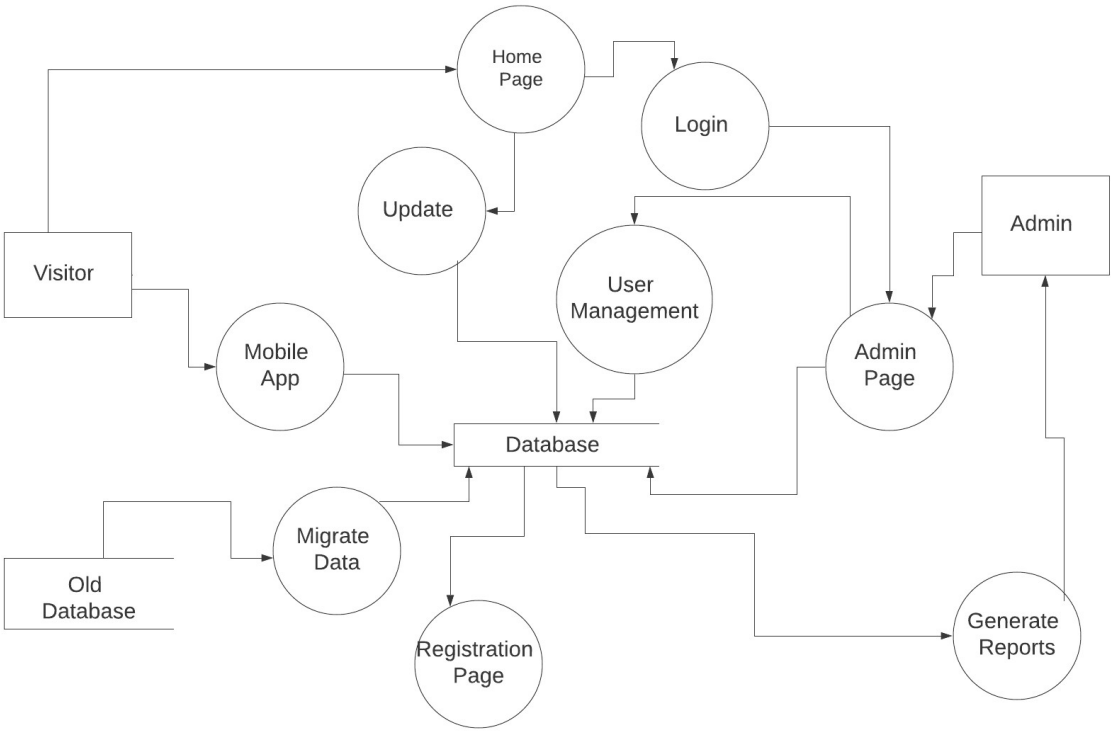
#### **Level 1 Data Flow Diagram**



**Figure 3.5**

The Figure 3.5 shows the Level 1 Data Flow diagram

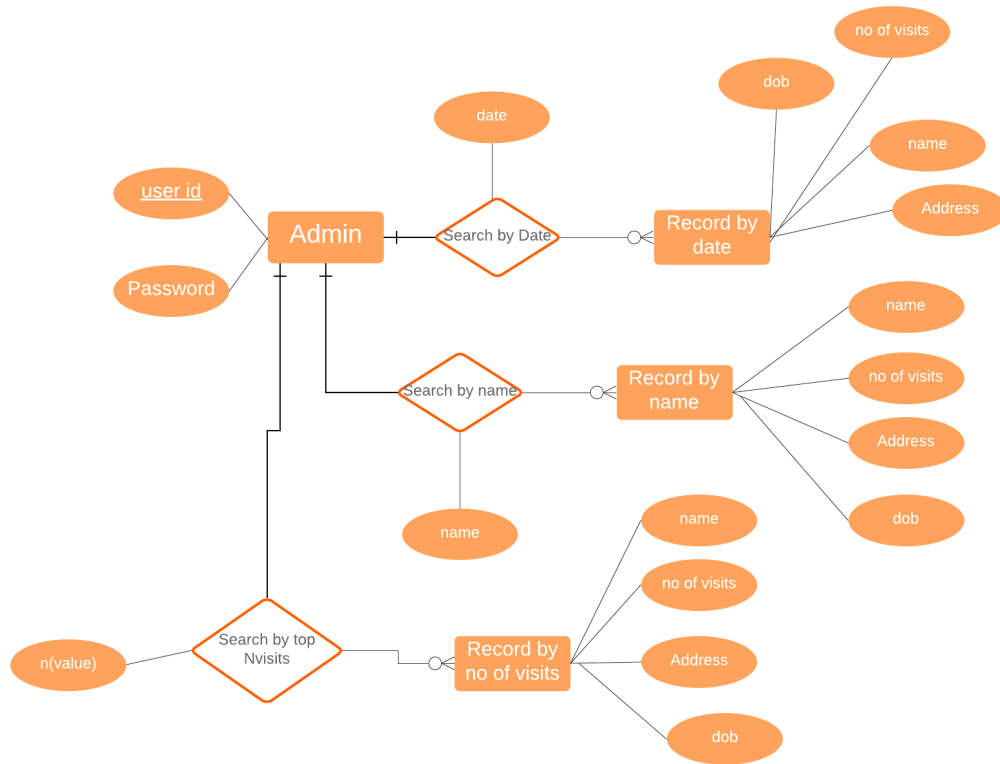
**Level 2 Data Flow Diagram**



**Figure 3.6**  
Figure 3.6 shows the Level 2 Data Flow diagram

### 3.2.2 Entity - Relationship Diagram

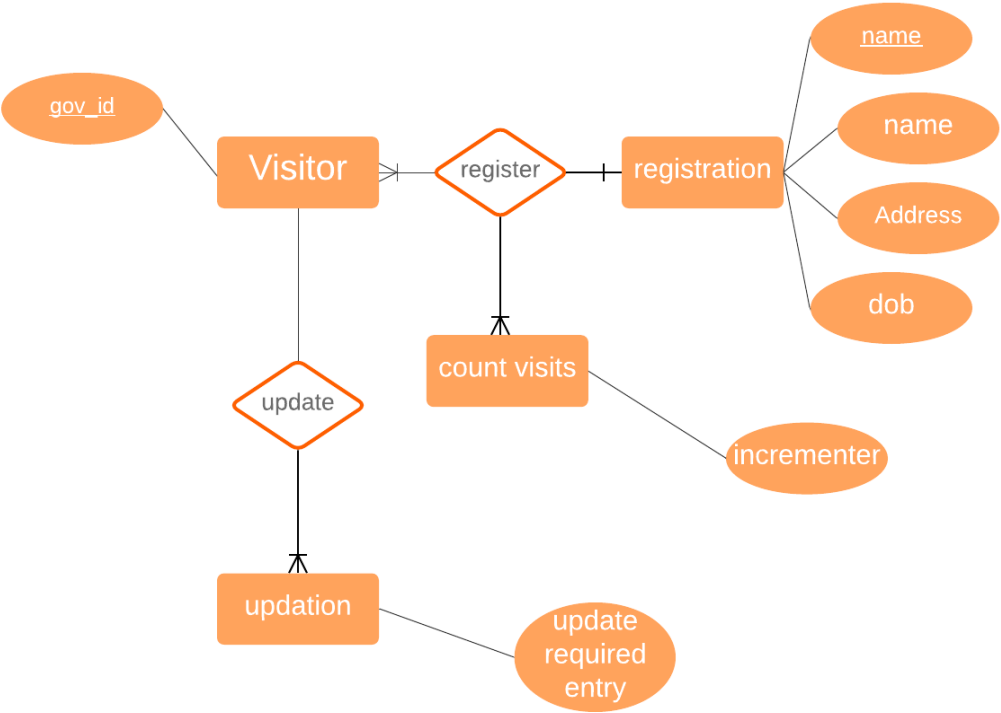
#### 1. For Admin:



**Figure 3.7**

Figure 3.7 shows the Entity-Relationship Diagram for the admin

**2. For Receptionist:**

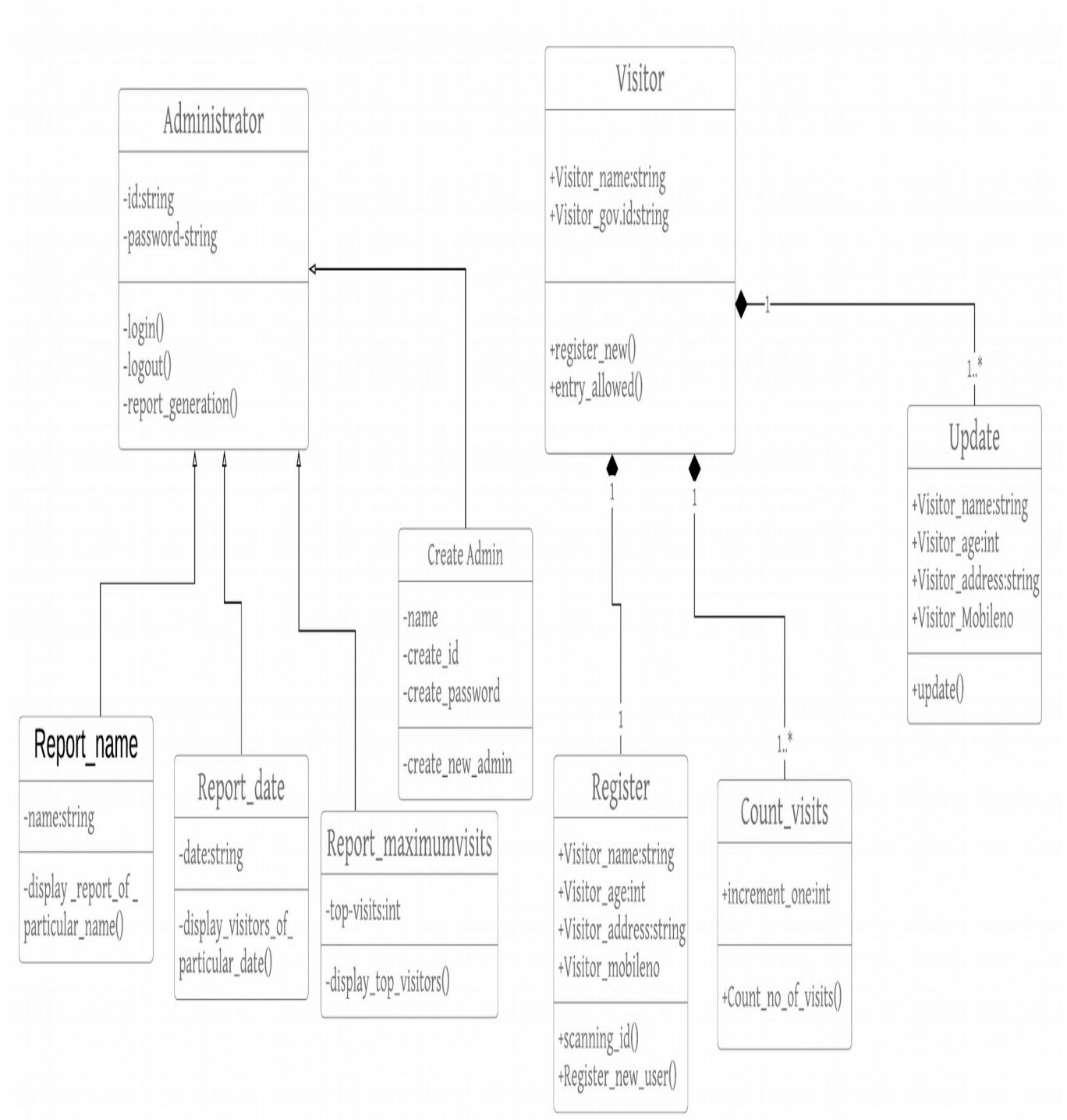


**Figure 3.8**

Figure 3.8 shows Entity-Relationship Diagram for Receptionist

## 3.3 Design

### 3.3.1 Overall Class Diagram



**Figure 3.9**

Figure 3.9 shows the Overall Class Diagram

### 3.3.2 Sequence diagram

New Visitor

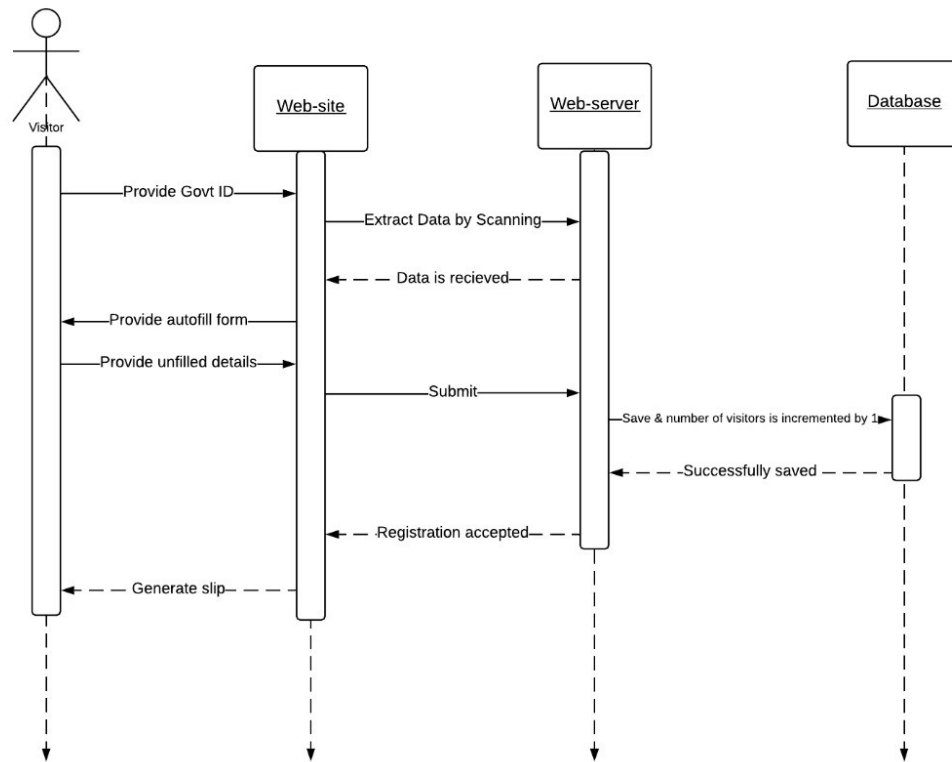


Figure 3.10

Figure 3.10 shows the sequence diagram for new visitor

Old Visitor

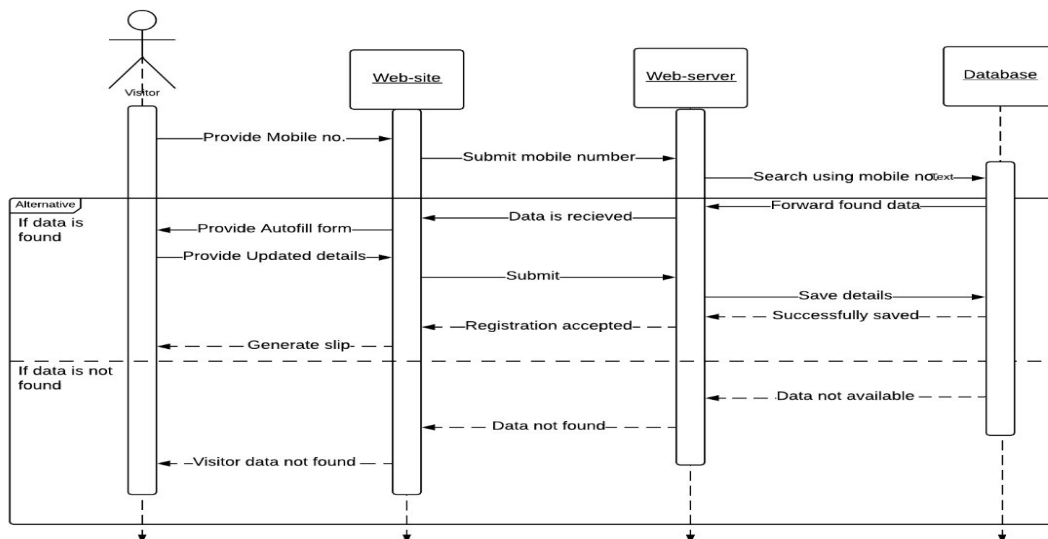
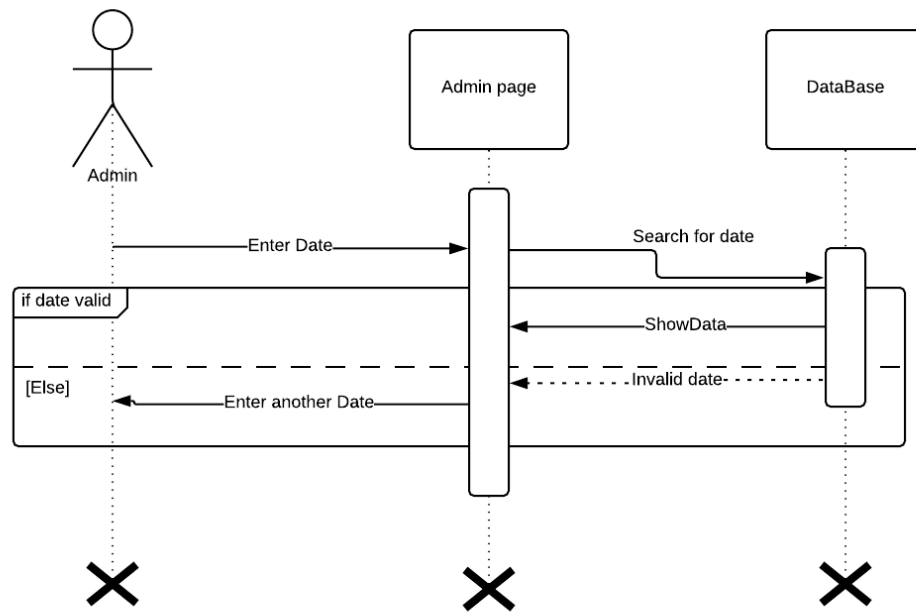


Figure 3.11

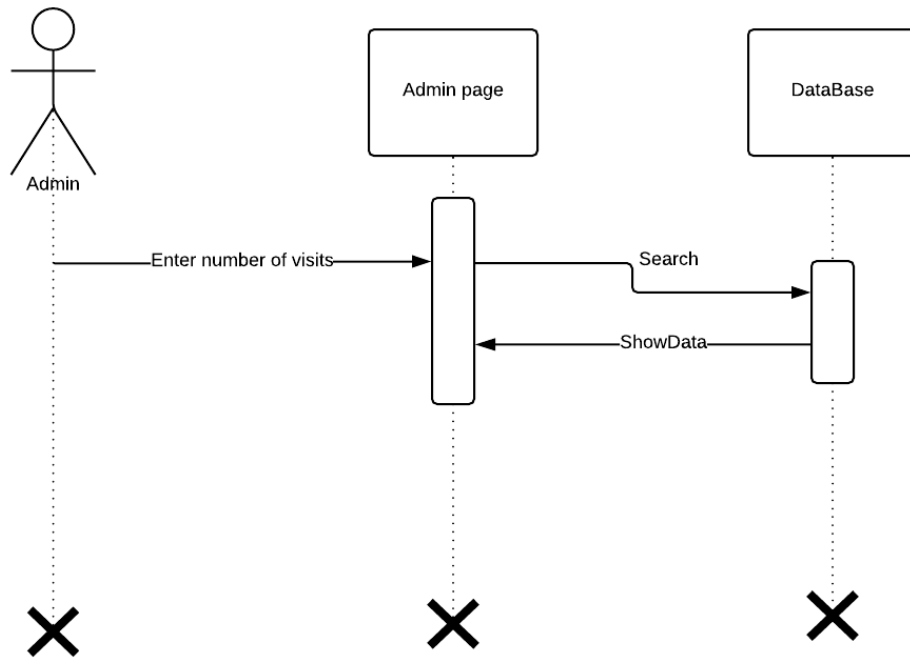
Figure 3.11 shows sequence diagram for old visitor





**Figure 3.12**

Figure 3.12 shows sequence diagram for generating report

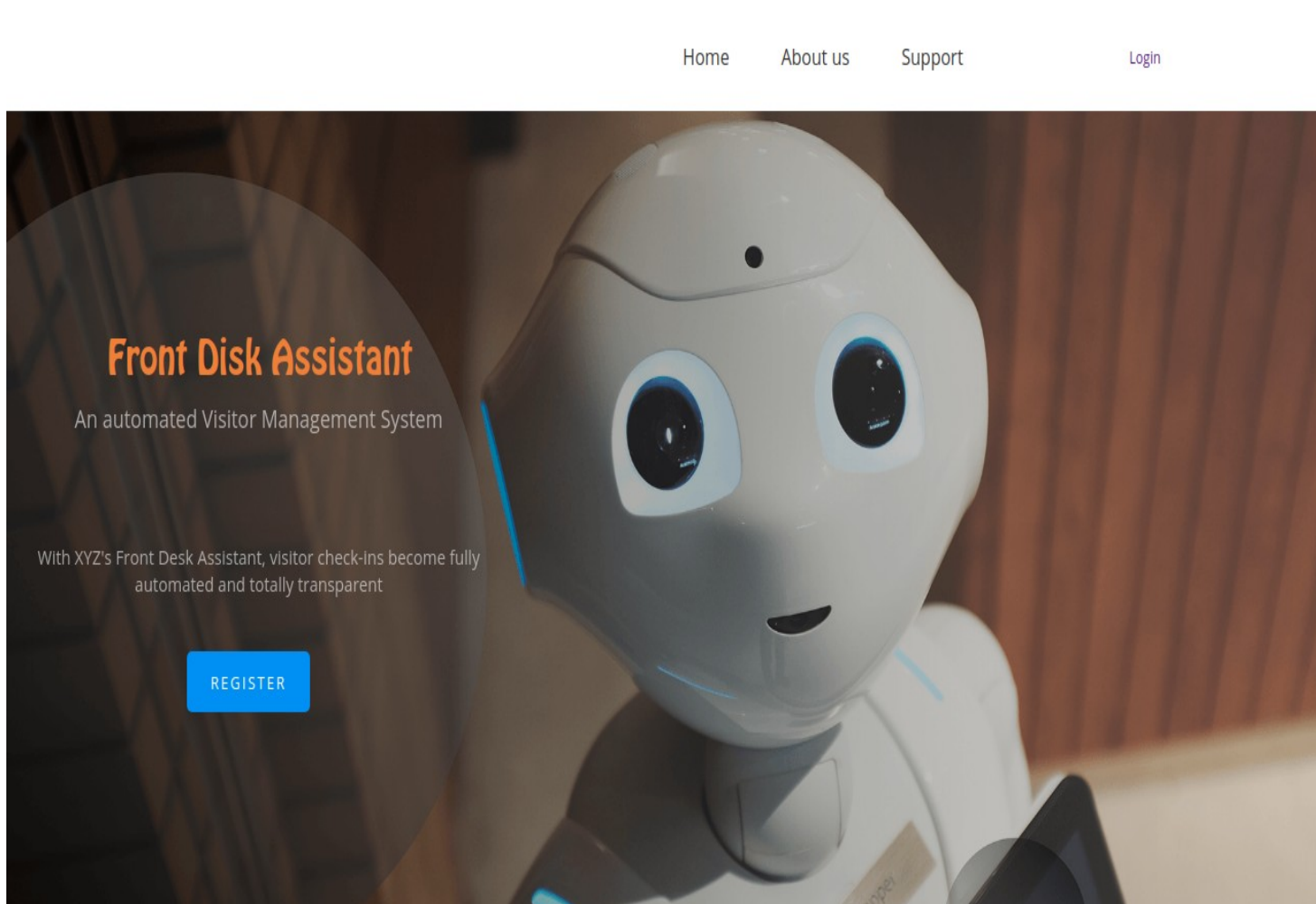


**Figure 3.13**

Figure 3.13 shows sequence diagram to search number of visit by a visitor

#### **4.1.1 USER INTERFACE**

##### **Home Page**



**Figure 4.1**

Figure 4.1 Shows UI for HomePage

# Login page

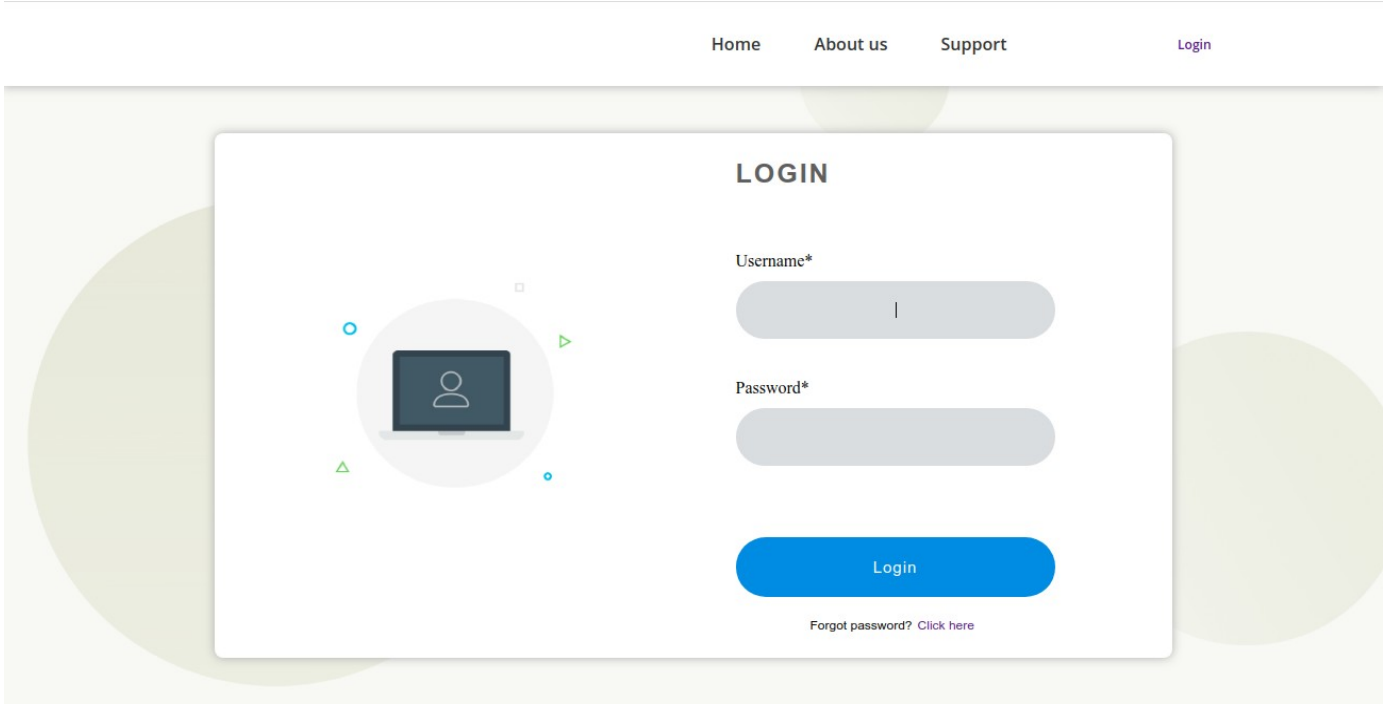


Figure 4.2

Figure 4.2 shows the Login UI

# Admin Dashboard

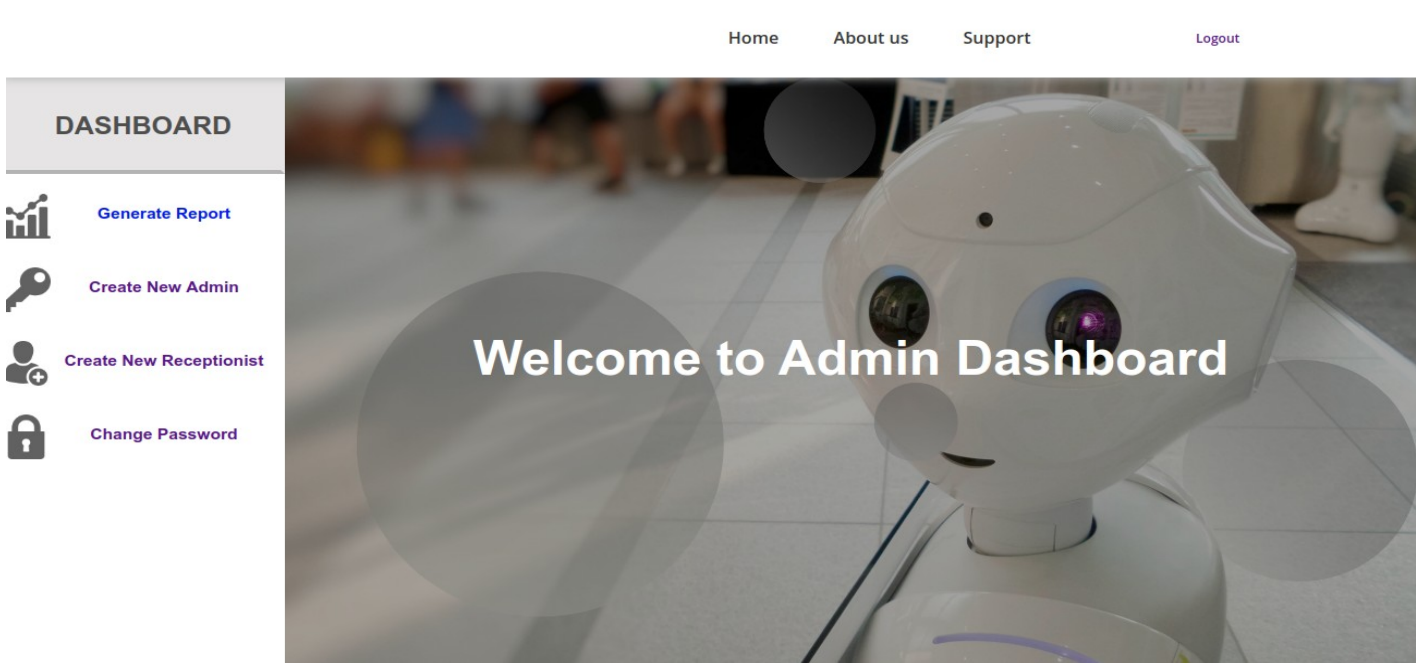
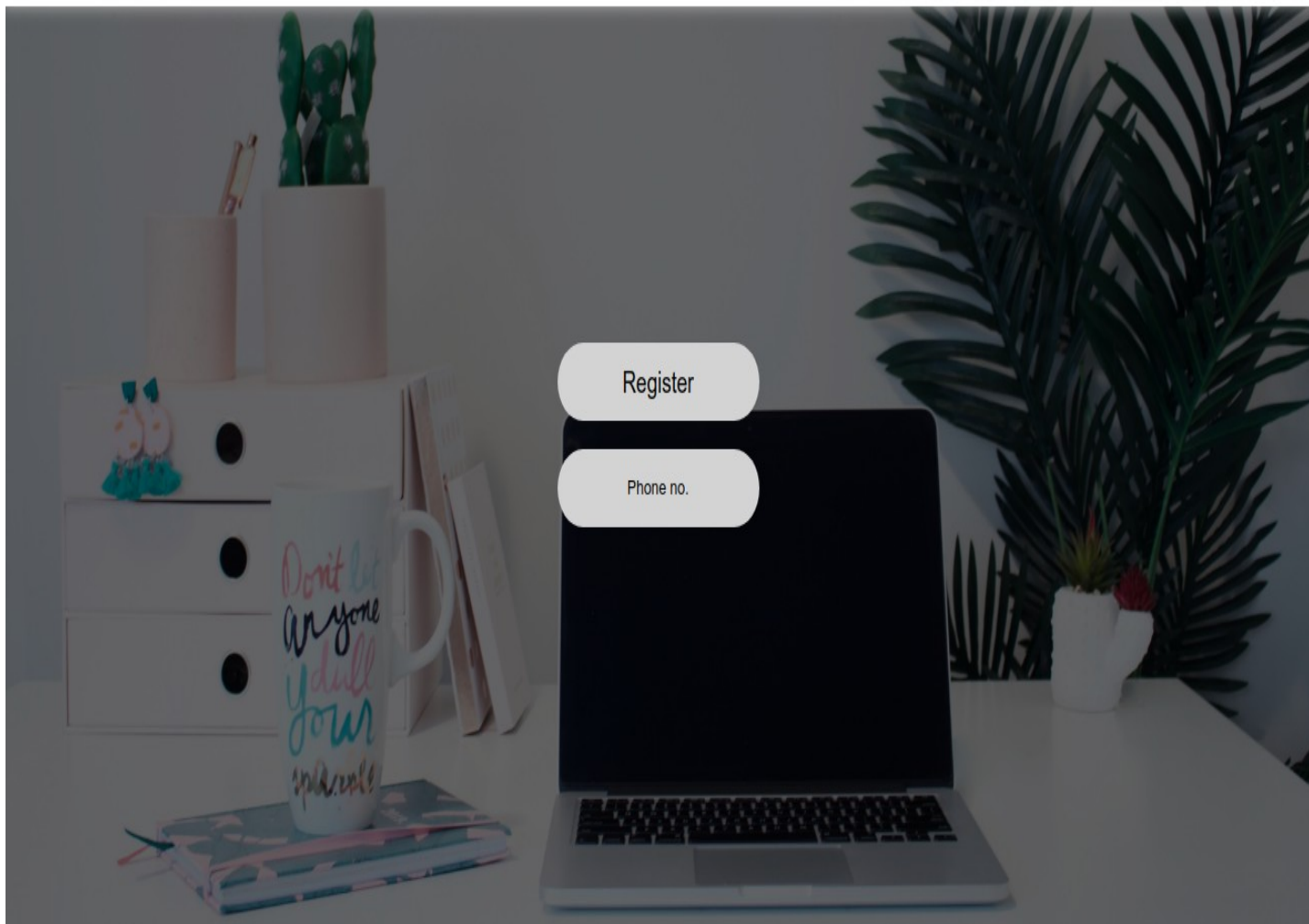


Figure 4.3

Figure 4.3 shows UI for Admin Dashboard

# Registration Dashboard

[Home](#)[About us](#)[Support](#)[Logout](#)

**Figure 4.4**

Figure 4.4 shows UI for Registration

## Mobile Application



The image shows a mobile application interface for registration. At the top, there is a blue status bar with the time 13:43 and various icons. Below this is an orange header bar with the text "TEKsystems Registration". The main form area has a light gray background and contains several input fields, each with a label above it and a text input area below it. The fields are: Name (with "name" entered), Gender (with "gender" entered), UID (with "uid" entered and a camera icon to the right), Address (with "address" entered), Pincode (with "pincode" entered), Dob (with "dob" entered), and URL (with "http://192.168.43.200:8080/" entered). At the bottom of the form is a gray button labeled "SUBMIT". The bottom of the screen shows a black navigation bar with three icons: a back arrow, a circle, and a square.

13:43

TEKsystems Registration

Name  
name

Gender  
gender

UID  
uid

Address  
address

Pincode  
pincode

Dob  
dob

URL  
http://192.168.43.200:8080/

SUBMIT

**Figure 4.5**

Figure 4.5 shows UI for mobile application

# Register Receptionist

Home   About us   Support   [Logout](#)

CREATE RECEPTIONIST

Username\*

Email\*

Password\*

Password confirmation\*

Submit

Figure 4.6

Figure 4.6 show the create receptionist form

# Register Admin

Home   About us   Support   [Logout](#)

CREATE ADMIN

Username\*

Email\*

Password\*

Password confirmation\*

Submit

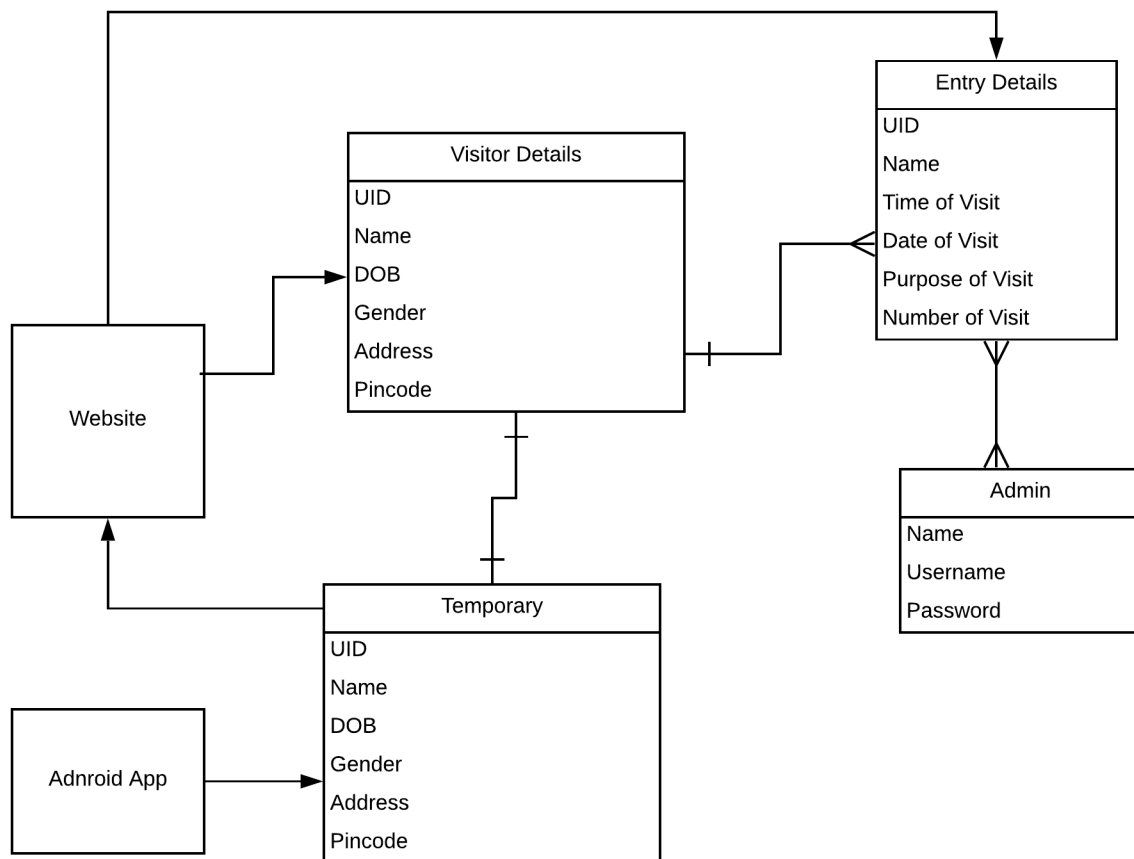
Figure 4.7

Figure 4.7 shows UI for registering admin

## 4.1.2 DATABASE

No SQL Database (MongoDb) is used in this project.

### DATABASE SCHEMA



**Figure 4.8**

Figure 4.8 shows Database Schema.



## CHAPTER 5

### REFERENCES

- <https://developer.android.com/>
- <https://docs.djangoproject.com/en/3.0/>
- <https://square.github.io/retrofit/>
- <https://www.django-rest-framework.org/>