VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Chikkabanavara, Bengaluru. 560090

MINI PROJECT REPORT ON

APARTMENT VISITOR MANAGEMENT SYSTEM

SUBMITTED BY:

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Under the guidance of

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Academic year 2021-22

RR INSTITUTE OF TECHNOLOGY

CHIKKABANAVARA, BENGALURU – 560090

DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING

CERTIFICATE

This is to certify that the mini project entitled **"APARTMENT VISITOR MANAGEMENT SYSTEM"** as a part of 18CSL58 laboratory, is a bonafide work carried out by **SUJAN DAHAL** bearing USN: **1RI19IS045** in partial fulfilment for the award of degree in Bachelor of Engineering in Information Science And Engineering from Visvesvaraya Technological University, Belagavi during the academic year 2021-22. It is certified that all the corrections/suggestions indicated for internal assessment have been incorporated in the report submitted in the department Library. This mini project report has been approved as it satisfies the academic requirements in respect of mini project report prescribed for award of said degree.

……..	...……..	……
Signature of Internal Guide	Signature of HOD	Signature of Principal
[Prof. Abhilash L Bhat]	**[Dr. Erappa G]**	**[Dr. Mahendra K V]**
Assistant professor	Prof. and Head	Principal
Dept. of ISE, RRIT	Dept.of ISE, RRIT	RRIT, Bangalore

Name of the Examiners	**Signature with Date**
1……..	1…….
2……..	2…….

ACKNOWLEDGEMENT

The completion of mini project work brings a sense of satisfaction, but it is never complete without thanking the persons responsible for its successful completion.

At the outset I express my most sincere grateful acknowledgment to the holy sanctum “RR Institute of Technology”, the temple of learning, for giving me an opportunity to pursue the degree course in Information Science and Engineering and thus helping me in shaping my career.

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I would like to thank all the teaching and non-teaching staff members in Department of Information Science and Engineering, RR Institute of Technology, Bengaluru, for their support.

Finally, I would like to thank all my friends and family members for their constant support, guidance and encouragement.

SUJAN DAHAL (1RI19IS045)

DECLARATION

I, **SUJAN DAHAL** , student of 5th semester in Information Science and Engineering, RR Institute of Technology, Bengaluru, hereby declare that the mini project entitled "APARTMENT VISITOR MANAGEMENT SYSTEM"has been carried out by me under the super vision of our guide **Prof. Abhilash L Bhat**, Assistant Professor, Dept. of Information Science and Engineering, RR Institute of Technology , Bengaluru and submitted in partial fulfilment for the award of degree in Bachelor of Engineering in Information Science and Engineering of **Visvesvaraya Technological University, Bengaluru** during the academic year 2021 – 2022. I further declare that the report has not been submitted to any other University for the award of any other degree.

SUJAN DAHAL (1RI19IS045)

ABSTRACT

Apartment Visitor Management System deals with the security provided at society premises from the unauthorized or unwanted visitors. This is a simple user interface developed using PHP and MySQL.

Moving on, this Apartment Visitor Management System project in PHP focuses mainly on keeping track of apartment visitors. Also, the system displays all the visitor's entry and outgoing records. In addition, the system allows adding apartment details too. This project only contains an admin panel. In an overview of this web application, an admin has all control over the system. He/she helps to maintain the flow of the system. An admin can simply add apartments by providing names, selecting buildings, and their occupancy. After the management, the admin can simply insert the visitor's entry. For this, he/she has to enter the visitor's name with some personal details and apartment details such as apartment number, and the reason behind the person visiting. Also, the system notes overall visitors per day.

Instead, Apartment Visitor Management System will assist you the professionalized way in which you welcome your visitors. This software is a complete Visitor Management service to improve the efficiency, productivity and security.

TABLE OF CONTENTS

Introduction TO AVMS

Introduction:-

Apartment Visitor Management system is a web-based technology that will revolutionize the way your society manages visitors. Visitor Management system is more important to security guards or security society. This web application provides a way to effectively control record & track society visitor traffic.

In AVMS we use PHP and MySQL database. This is the project which keeps records of visitors who visited in the Society. **AVMS has one module i.e. admin**

- Dashboard: In this section, admin can briefly view how many visitors visited in a particular period.
- Visitors: In this section, admin adds new visitors by filling their information in add visitors sections and also view and manage visitor's records. Admin also put visitors out time in the manage records section.
- Search: In this bar, admin can search a particular person by their name and phone number.
- Reports: In this section admin can generate visitor's reports between two dates.

Admin can also update his profile, change password and recover password.

Purpose:-

The purpose of developing apartment visitor management system is to computerized the tradition way of visitors. Another purpose for developing this application is to generate the report automatically.

Scope:-

Apartment Visitor Management System project is developed as a web application and it will work over web.

Requirement Specification

Hardware Configuration :

Client Side:

RAM	512 MB
Hard disk	10 GB
Processor	1.0 GHz

Server side:

RAM	**1 GB**
Hard disk	**20 GB**
Processor	**2.0 GHz**

Software Requirement:

Client Side:

Web Browser	Google Chrome or any compatible browser
Operating System	Windows or any equivalent OS

Server Side:

Web Server	APACHE

Server side Language	PHP5.6 or above version
Database Server	MYSQL
Web Browser	Google Chrome or any compatible browser
Operating System	Windows or any equivalent OS

APACHE

The Apache HTTP Server Project is an effort to develop and maintain an open-source HTTP server for modern operating systems including UNIX and Windows. The goal of this project is to provide a secure, efficient and extensible server that provides HTTP services in sync with the current HTTP standards.

The Apache HTTP Server ("httpd") was launched in 1995 and it has been the most popular web server on the Internet since April 1996. It has celebrated its 20th birthday as a project in February 2015.

PHP

- PHP stands for PHP: Hypertext Preprocessor.
- PHP is a server-side scripting language, like ASP.
- PHP scripts are executed on the server.
- PHP supports many databases (MYSQL, Informix, Oracle, Sybase, Solid, Generic ODBC, etc.).
- PHP is open source software.
- PHP is free to download and use.

MYSQL

- MYSQL is a database server
- MYSQL is ideal for both small and large applications
- MYSQL supports standard SQL
- MYSQL compiles on a number of platforms
- MYSQL is free to download and use
- How to access MySQL: http://localhost/phpmyadmin

Analysis and Design

Analysis:

In present all visitor work done on the paper. The whole year visitor is stored in the registers. We can't generate reports as per our requirements because its take more time to calculate the visitors report.

Disadvantage of present system:

- **Not user friendly:** The present system not user friendly because data is not stored in structure and proper format.
- **Manual Control:** All report calculation is done manually so there is a chance of error.
- **Lots of paper work:** Visitors maintain in the register so lots of paper require storing details.
- **Time consuming**

Design Introduction:

Design is the first step in the development phase for any techniques and principles for the purpose of defining a device, a process or system in sufficient detail to permit its physical realization.

Once the software requirements have been analyzed and specified the software design involves three technical activities - design, coding, implementation and testing that are required to build and verify the software.

The design activities are of main importance in this phase, because in this activity, decisions ultimately affecting the success of the software implementation and its ease of maintenance are made. These decisions have the final bearing upon reliability and

maintainability of the system. Design is the only way to accurately translate the customer's requirements into finished software or a system.

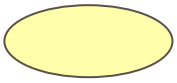
Design is the place where quality is fostered in development. Software design is a process through which requirements are translated into a representation of software. Software design is conducted in two steps. Preliminary design is concerned with the transformation of requirements into data

UML Diagrams:

Actor:

A coherent set of roles that users of use cases play when interacting with the use `cases.

Use case:A description of sequence of actions, including variants, that a system performs that yields an observable result of value of an actor.



UML stands for Unified Modeling Language. UML is a language for specifying, visualizing and documenting the system. This is the step while developing any product after analysis. The goal from this is to produce a model of the entities involved in the project which later need to be built. The representation of the entities that are to be used in the product being developed need to be designed.

USECASE DIAGRAMS:

Use case diagrams model behavior within a system and helps the developers understand of what the user require. The stick man represents what's called an actor.

Use case diagram can be useful for getting an overall view of the system and clarifying who can do and more importantly what they can't do.

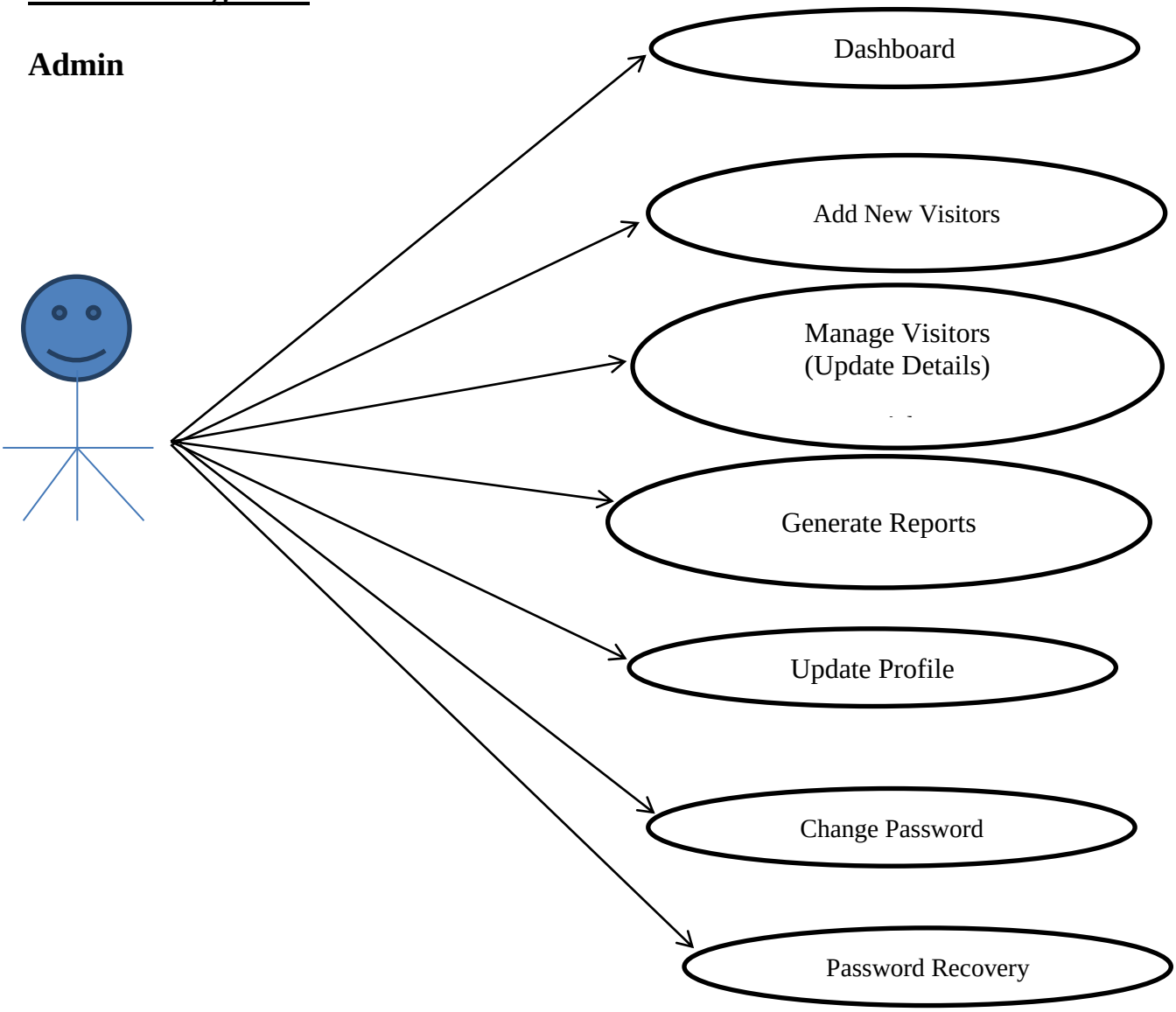
Use case diagram consists of use cases and actors and shows the interaction between the use case and actors.

- The purpose is to show the interactions between the use case and actor.
- To represent the system requirements from user's perspective.
- An actor could be the end-user of the system or an external system.

USECASE DIAGRAM:A Use case is a description of set of sequence of actions. Graphically it is rendered as an ellipse with solid line including only its name. Use case diagram is a behavioral diagram that shows a set of use cases and actors and their relationship. It is an association between the use cases and actors. An actor represents a real-world object. Primary Actor – Sender, Secondary Actor Receiver.

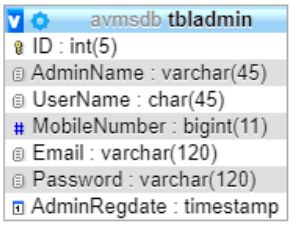
Use Case Diagrams:

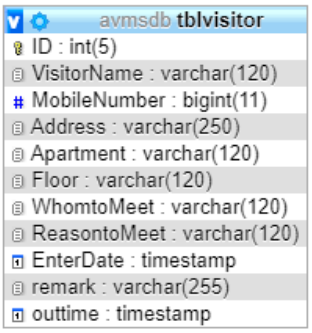
Admin



Class Diagram:

A description of set of objects that share the same attributes operations, relationships, and semantics





ER Diagram:

The Entity-Relationship (ER) model was originally proposed by Peter in 1976 [Chen76] as a way to unify the network and relational database views. Simply stated the ER model is a conceptual data model that views the real world as entities and relationships. A basic component of the model is the Entity-Relationship diagram which is used to visually represent data objects. Since Chen wrote his paper the model has been extended and today it is commonly used for database design for the database designer, the utility of the ER model is:

- It maps well to the relational model. The constructs used in the ER model can easily be transformed into relational tables.
- It is simple and easy to understand with a minimum of training. Therefore, the model can be used by the database designer to communicate the design to the end user.
- In addition, the model can be used as a design plan by the database developer to implement a data model in specific database management software.

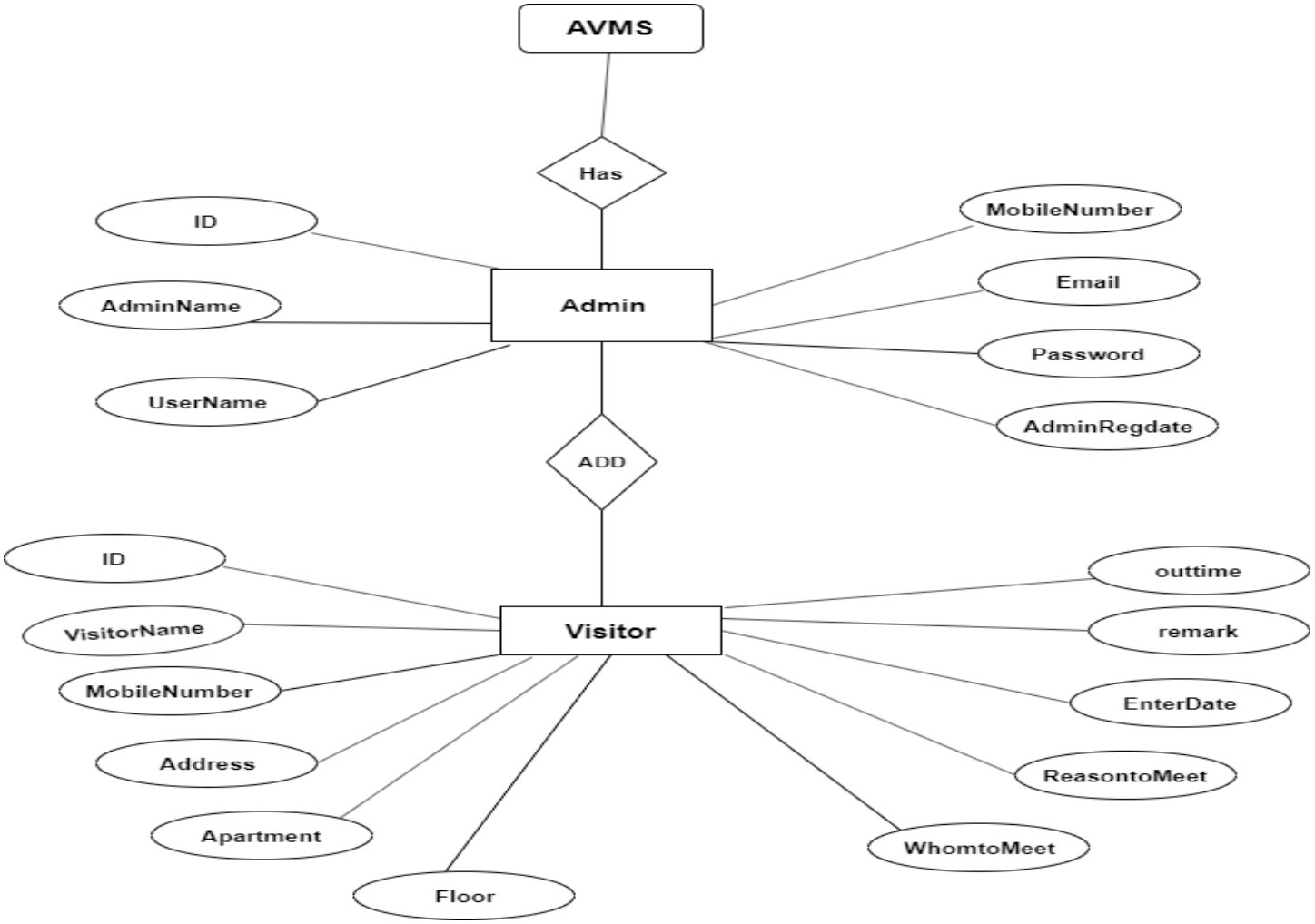
ER Notation

There is no standard for representing data objects in ER diagrams. Each modeling methodology uses its own notation. The original notation used by Chen is widely used in academics texts and journals but rarely seen in either CASE tools or publications by non-academics. Today, there are a number of notations used; among the more common are Bachman, crow's foot, and IDEFIX.

All notational styles represent entities as rectangular boxes and relationships as lines connecting boxes. Each style uses a special set of symbols to represent the cardinality of a connection. The notation used in this document is from Martin. The symbols used for the basic ER constructs are:

- **Entities** are represented by labeled rectangles. The label is the name of the entity. Entity names should be singular nouns.
- **Relationships** are represented by a solid line connecting two entities. The name of the relationship is written above the line. Relationship names should be verbs
- **Attributes**, when included, are listed inside the entity rectangle. Attributes which are identifiers are underlined. Attribute names should be singular nouns.
- **Cardinality** of many is represented by a line ending in a crow's foot. If the crow's foot is omitted, the cardinality is one.

Existence is represented by placing a circle or a perpendicular bar on the line. Mandatory existence is shown by the bar (looks like a 1) next to the entity for an instance is required. Optional existence is shown by placing a circle next to the entity that is optional.



MySQL Data Tables:

Admin Table:(Table name is admin)

This store admin personal and login details.

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	**ID** 🔑	int(5)			No	*None*		AUTO_INCREMENT
2	**AdminName**	varchar(45)	latin1_swedish_ci		Yes	*NULL*		
3	**UserName**	char(45)	latin1_swedish_ci		Yes	*NULL*		
4	**MobileNumber**	bigint(11)			Yes	*NULL*		
5	**Email**	varchar(120)	latin1_swedish_ci		Yes	*NULL*		
6	**Password**	varchar(120)	latin1_swedish_ci		Yes	*NULL*		
7	**AdminRegdate**	timestamp			Yes	current_timestamp()		

Visitor Table: (Table name is tblvisitor)

This store the visitor details and admin remark

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	ID	int(5)			No	*None*		AUTO_INCREMENT
2	VisitorName	varchar(120)	latin1_swedish_ci		Yes	*NULL*		
3	MobileNumber	bigint(11)			Yes	*NULL*		
4	Address	varchar(250)	latin1_swedish_ci		Yes	*NULL*		
5	Apartment	varchar(120)	latin1_swedish_ci		No	*None*		
6	Floor	varchar(120)	latin1_swedish_ci		No	*None*		
7	WhomtoMeet	varchar(120)	latin1_swedish_ci		Yes	*NULL*		
8	ReasontoMeet	varchar(120)	latin1_swedish_ci		Yes	*NULL*		
9	EnterDate	timestamp			Yes	current_timestamp()		
10	remark	varchar(255)	latin1_swedish_ci		Yes	*NULL*		
11	outtime	timestamp			Yes	*NULL*		ON UPDATE CURRENT_TIMESTAMP()

Implementation and System Testing

In this Section we will do Analysis of Technologies to use for implementing the project.

FRONTEND

HTML

Hypertext Markup Language (HTML) is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript. Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

HTML elements are the building blocks of HTML pages. With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. HTML elements are delineated by tags, written using angle brackets. Tags such as <img /> and <input /> directly introduce content into the page. Other tags such as <p> surround and provide information about document text and may include other tags as sub-elements. Browsers do not display the HTML tags, but use them to interpret the content of the page.

HTML can embed programs written in a scripting language such as JavaScript, which affects the behavior and content of web pages. Inclusion of CSS defines the look and layout of content. The World Wide Web Consortium (W3C), former maintainer of the HTML and current maintainer of the CSS standards, has encouraged the use of CSS over explicit presentational HTML since 1997.

JavaScript

JavaScript s a high-level, interpreted scripting language that conforms to the ECMAScript specification. JavaScript has curly-bracket syntax, dynamic typing, prototype-based object orientation, and first-class functions. Alongside HTML and CSS, JavaScript is one of the core technologies of the World Wide Web. JavaScript enables interactive web pages and is an essential part of web applications. The vast majority of websites use it, and major web browsers have a dedicated JavaScript engine to execute it. As a multi-paradigm language, JavaScript supports event driven, functional, and imperative (including object-oriented and prototype-based) programming styles. It has APIs for working with text, arrays, dates, regular expressions, and the DOM, but the language itself does not include any I/O, such

as networking, storage, or graphics facilities. It relies upon the host environment in which it is embedded to provide these features.

Initially only implemented client-side in web browsers, JavaScript engines are now embedded in many other types of host software, including server-side in web servers and databases, and in non-web programs such as word processors and PDF software, and in runtime environments that make JavaScript available for writing mobile and desktop applications, including desktop widgets.

The terms Vanilla JavaScript and Vanilla JS refer to JavaScript not extended by any frameworks or

additional libraries. Scripts written in Vanilla JS are plain JavaScript code. Google's Chrome extensions, Opera's extensions, Apple's Safari 5 extensions, Apple's Dashboard Widgets, Microsoft's Gadgets, Yahoo! Widgets, Google Desktop Gadgets, and Serence Klipfolio are implemented using JavaScript.

CSS

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language like HTML.CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a separate .css file, and reduce complexity and repetition in the structural content.

CSS information can be provided from various sources. These sources can be the web browser, the user and the author. The information from the author can be further classified into inline, media type, importance, selector specificity, rule order, inheritance and property definition. CSS style information can be in a separate document or it can be embedded into an HTML document. Multiple style sheets can be imported. Different styles can be applied depending on the output device being used; for example, the screen version can be quite different from the printed version, so that authors can tailor the presentation appropriately for each medium.The style sheet with the highest priority controls the content display. Declarations not set in the highest priority source are passed on to a source of lower priority, such as the user agent style. The process is called cascading.

One of the goals of CSS is to allow users greater control over presentation. Someone who finds red italic headings difficult to read may apply a different style sheet. Depending on the browser and the web site, a user may choose from various style sheets provided by the designers, or may remove all added styles and view the site using the browser's default styling, or may override just the red italic heading style without altering other attributes.

BACKEND

PHP

PHP is a server side scripting language that is used to develop Static websites or Dynamic websites or Web applications. PHP stands for Hypertext Pre-processor, that earlier stood for Personal Home Pages. PHP scripts can only be interpreted on a server that has PHP installed. The client computers accessing the PHP scripts require a web browser only. A PHP file contains PHP tags and ends with the extension ".php".

The term PHP is an acronym for PHP: Hypertext Preprocessor. PHP is a server-side scripting language designed specifically for web development. PHP can be easily embedded in HTML files and HTML codes can also be written in a PHP file. The thing that differentiates PHP with client side language like HTML is, PHP codes are executed on the server whereas HTML codes are directly rendered on the browser.

PHP: Hypertext Preprocessor (or simply PHP) is a general-purpose programming language originally designed for web development. It was originally created by Rasmus Lerdorf in 1994.PHP code may be executed with a command line interface (CLI), embedded into HTML code, or used in combination with various web template systems, web content management systems, and web frameworks. PHP code is usually processed by a PHP interpreter implemented as a module in a web server or as a Common Gateway Interface (CGI) executable. The web server outputs the results of the interpreted and executed PHP code, which may be any type of data, such as generated HTML code or binary image data. PHP can be used for many programming tasks outside of the web context, such as standalone graphical applications and robotic drone control.

MYSQL

MySQL is an open-source relational database management system (RDBMS) based on Structured Query Language (SQL).Its name is a combination of "My", the name of co- founder Michael Widenius's daughter, and "SQL", the abbreviation for Structured Query Language. A relational database organizes data into one or more data tables in which data types may be related to each other; these relations help structure the data. SQL is a language programmers use to create, modify and extract data from the relational database, as well as control user access to the database. In addition to relational databases and SQL, an RDBMS like MySQL works with an operating system to implement a relational database in a computer's storage system, manages users, allows for network access and facilitates testing database integrity and creation of backups.

MySQL is pretty easy to master in comparison with other database software like Oracle Database, or Microsoft SQL Server. MySQL can run on various platforms UNIX, Linux, Windows, etc. You can install it on a server or even in a desktop. Besides, MySQL is reliable, scalable, and fast. The official way to pronounce MySQL is My Ess Que Ell, not My Sequel. However, you can pronounce it whatever you like, who cares?

MySQL is free and open-source software under the terms of the GNU General Public License, and is also available under a variety of proprietary licenses. MySQL was owned and sponsored by the Swedish company MySQL AB, which was bought by Sun Microsystems (now Oracle Corporation).In 2010, when Oracle acquired Sun, Widenius forked the open-source MySQL project to create Maria DB.

MySQL is a component of the LAMP web application software stack (and others), which is an acronym for Linux, Apache, MySQL, Perl/PHP/Python. MySQL is used by many database-driven web applications, including Drupal, Joomla, phpBB, and WordPress. MySQL is also used by many popular websites, including Facebook, YouTube, Twitter and so on.

System Testing

The goal of the system testing process was to determine all faults in our project .The program subjected to a set of test inputs and many explanations were made and based on t explanations it will be decided whether the program behaves as expected or not. Our Project

through two levels of testing

1. Unit testing

2. Integration testing

UNIT TESTING

Unit testing is commenced when a unit has been created and effectively reviewed .In order to test a single module we need to provide a complete environment i.e. besides the section we would require

- The procedures belonging to other units that the unit under test calls
- Non local data structures that module accesses
- A procedure to call the functions of the unit under test with appropriate parameters

1. Test for the admin module

- **Testing admin login form-**This form is used for log in of administrator of the system. In this form we enter the username and password if both are correct administration page will open otherwise if any of data is wrong it will get redirected back to the login page and again ask the details.

- **Report Generation:** admin can generate report from the main database.

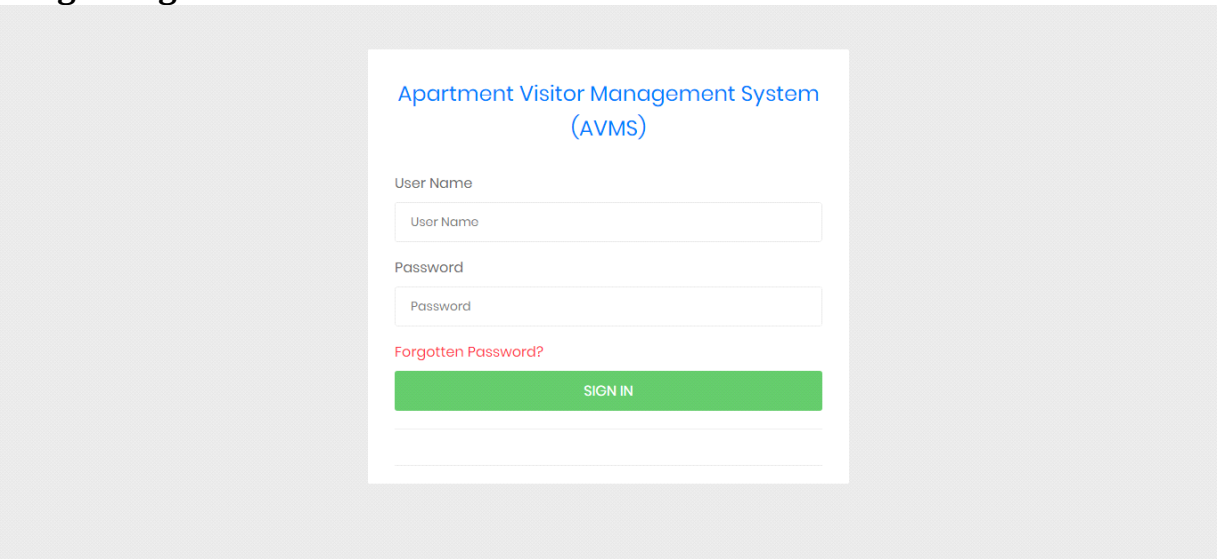
INTEGRATION TESTING

In the Integration testing we test various combination of the project module by providing the input.
The primary objective is to test the module interfaces in order to confirm that no errors are occurring when one module invokes the other module.

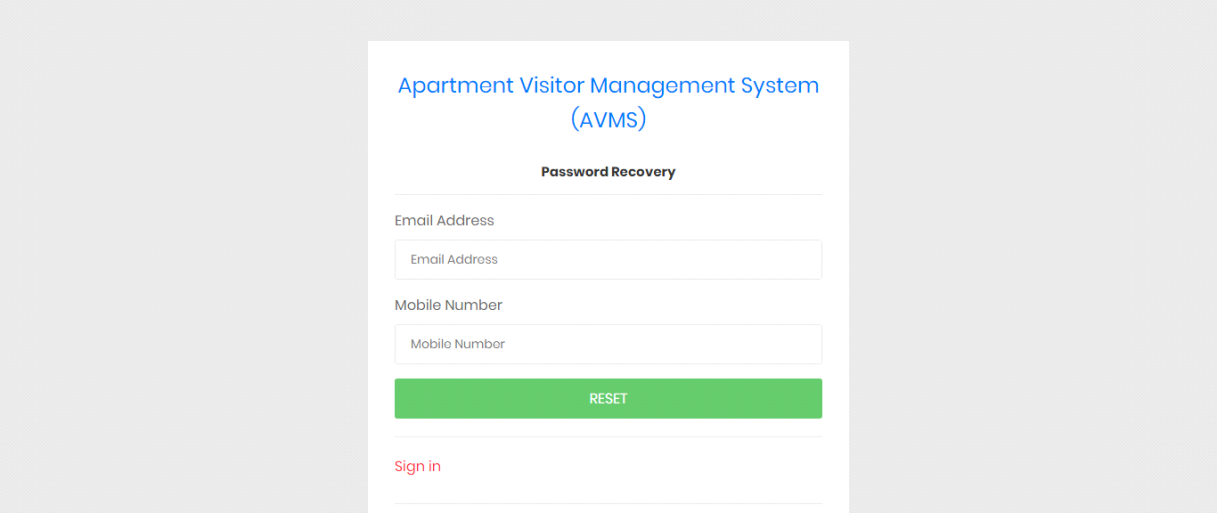
RESULTS

Project URL: http://localhost/avms

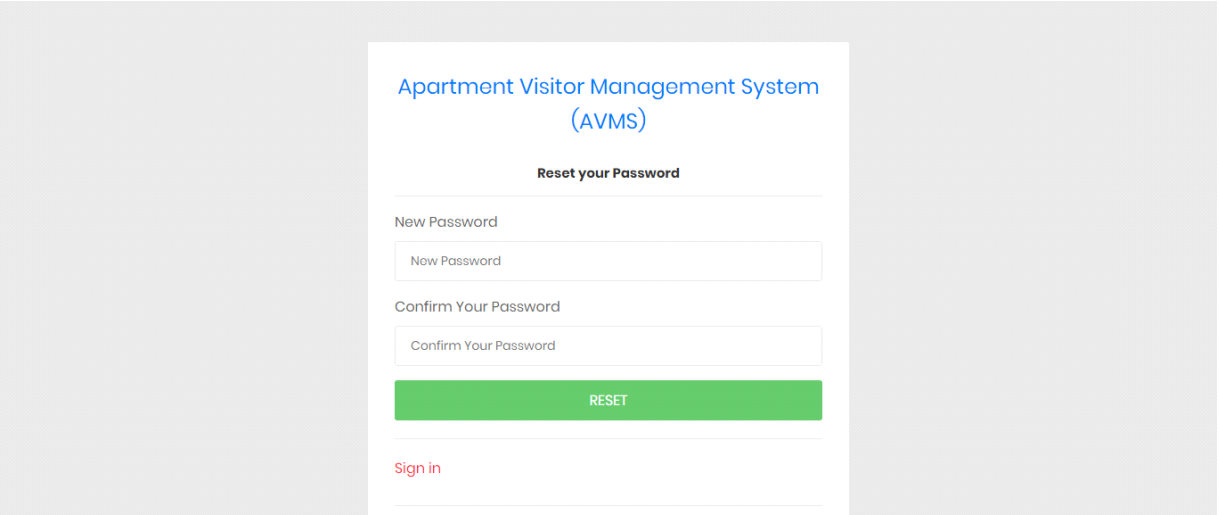
Login Page



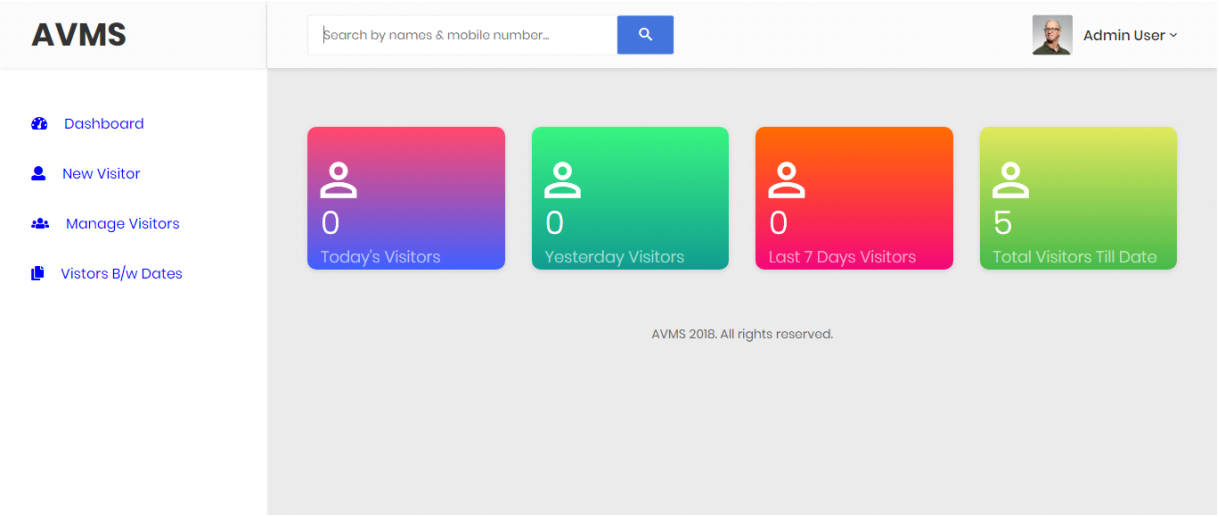
Forgot Password



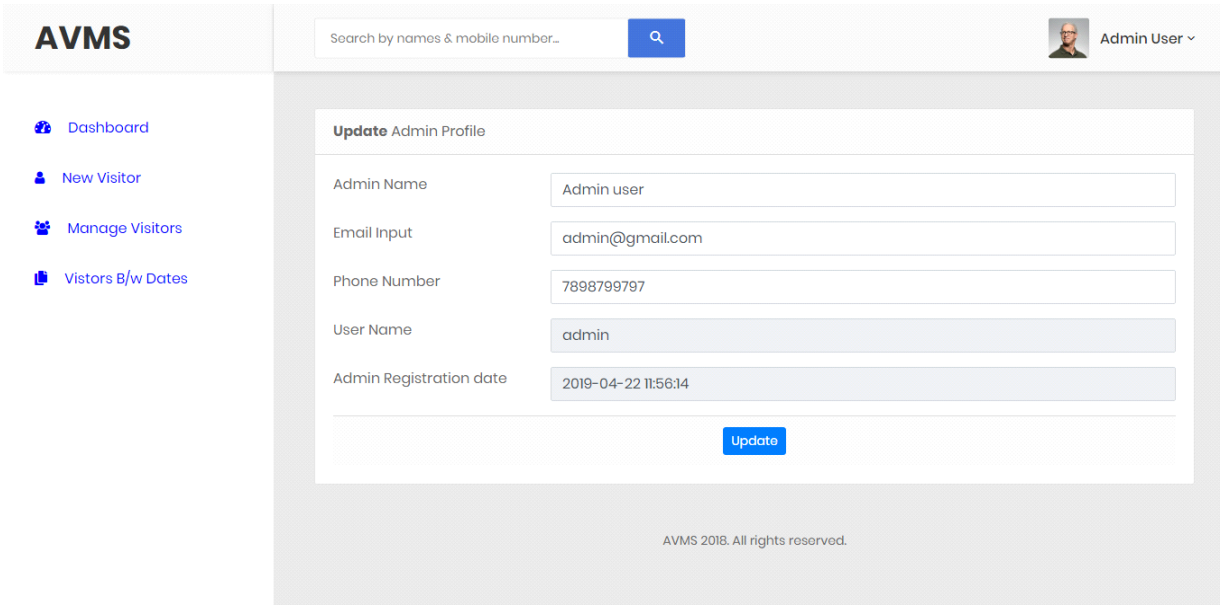
Reset Password



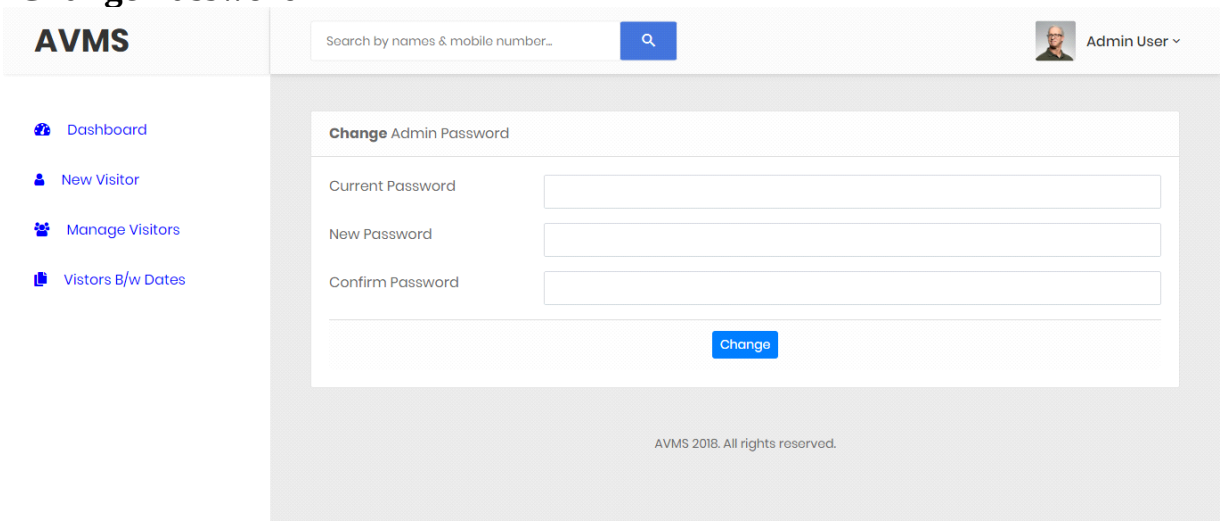
Dashboard



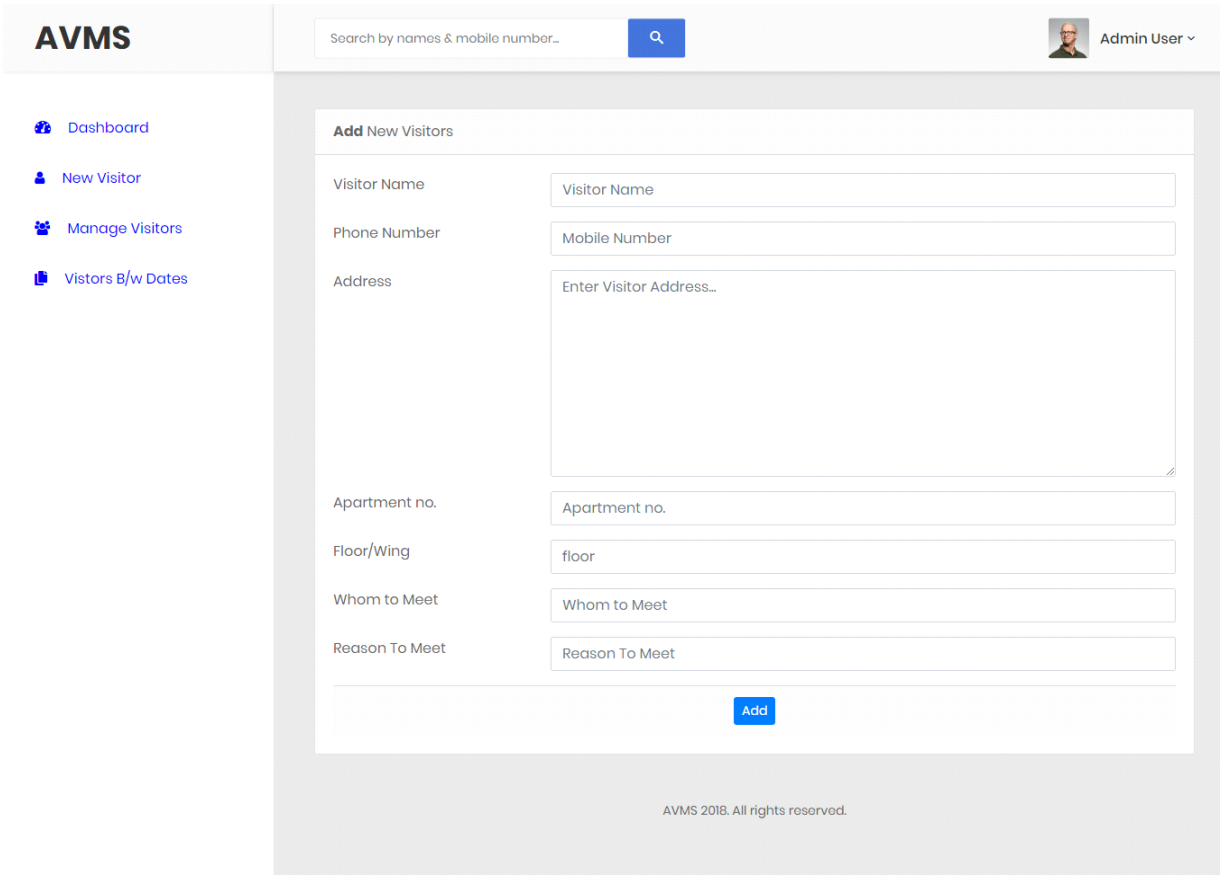
Admin Profile



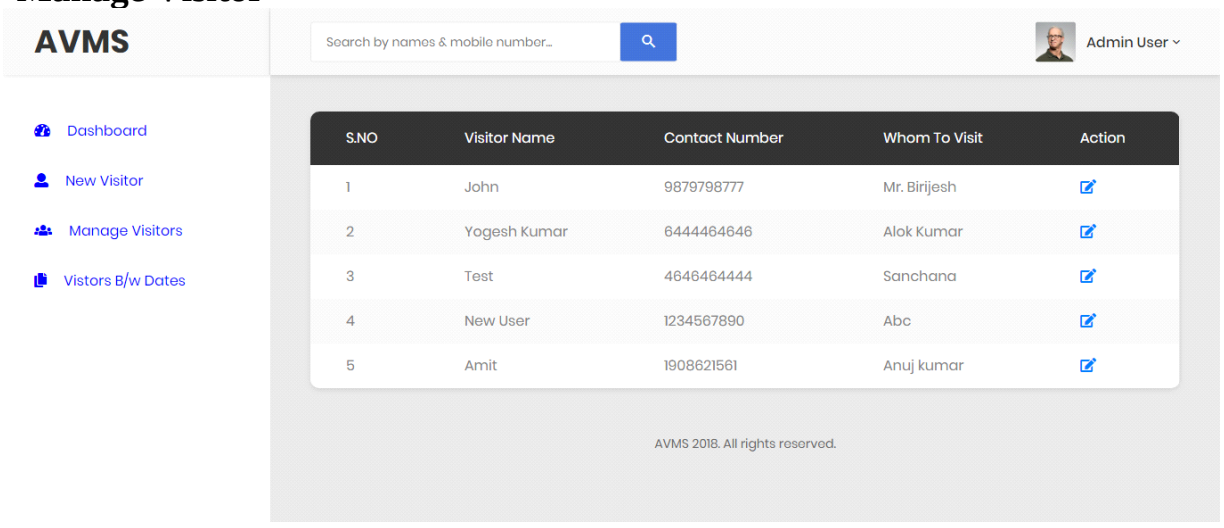
Change Password



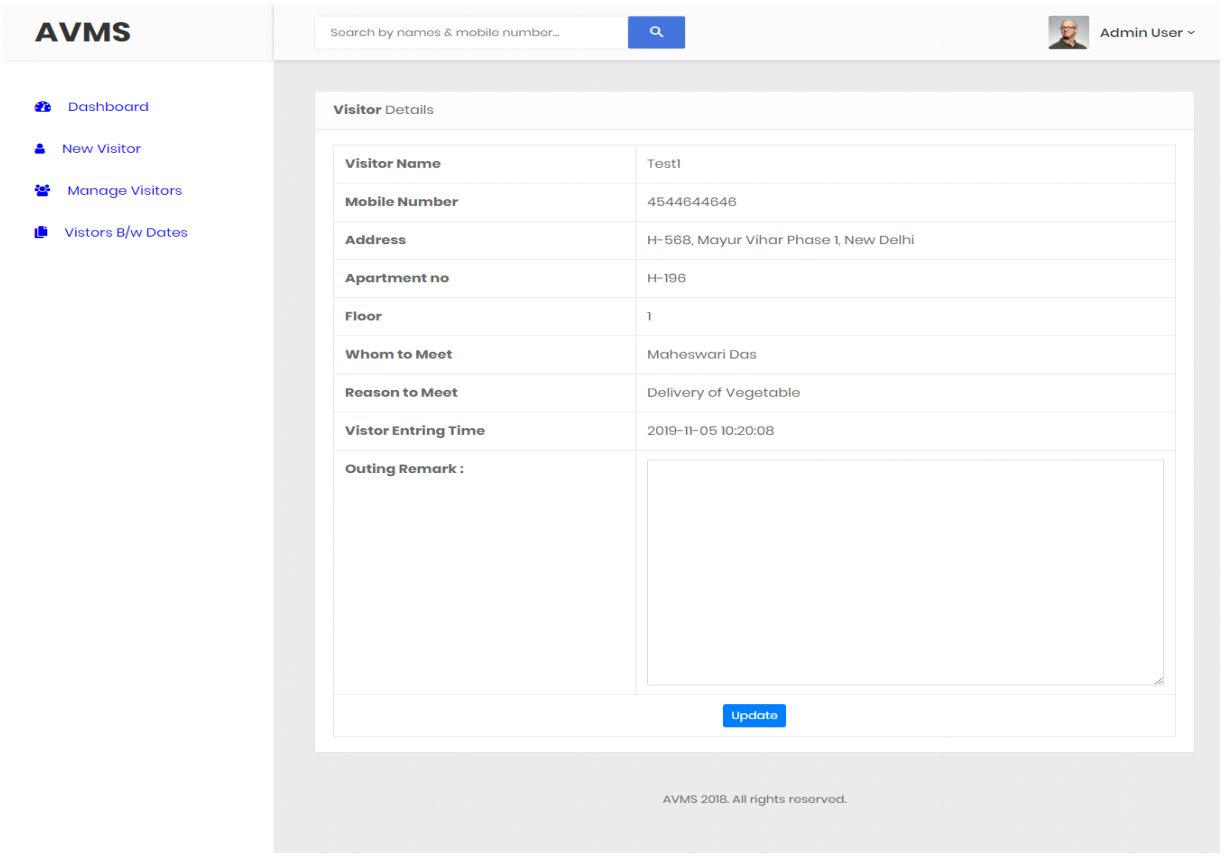
Add New Visitor



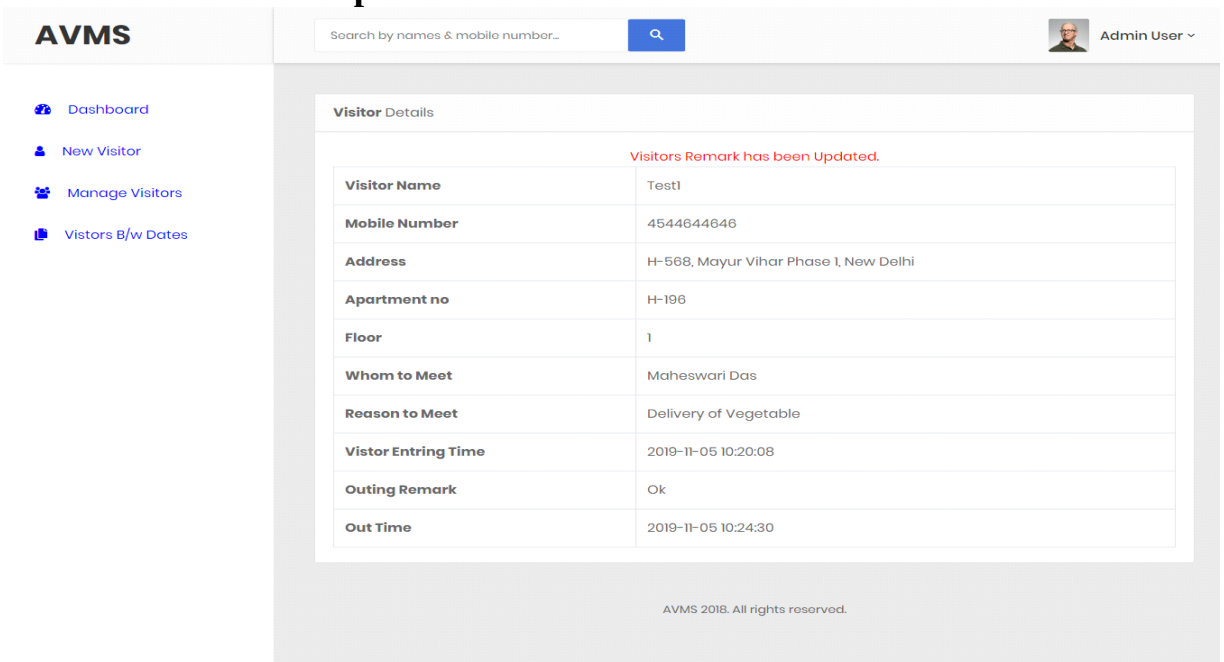
Manage Visitor



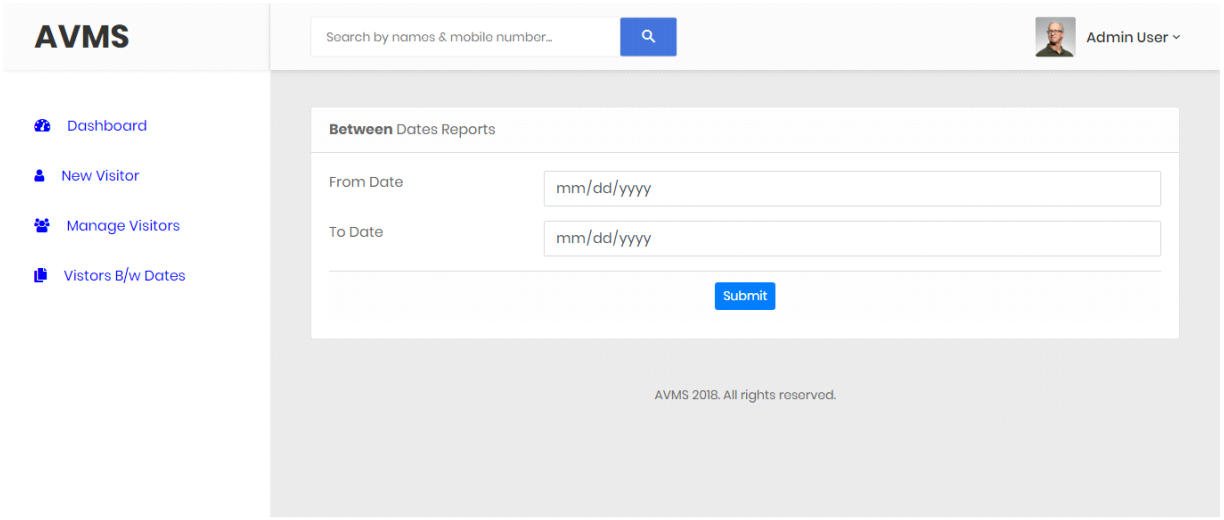
Visitor Detail



Visitor Detail after Update



Between Dates Reports


AVMS
Search by names & mobile number...
Admin User
Dashboard
New Visitor
Manage Visitors
Vistors B/w Dates
Between Dates Reports
From Date
mm/dd/yyyy
To Date
mm/dd/yyyy
Submit
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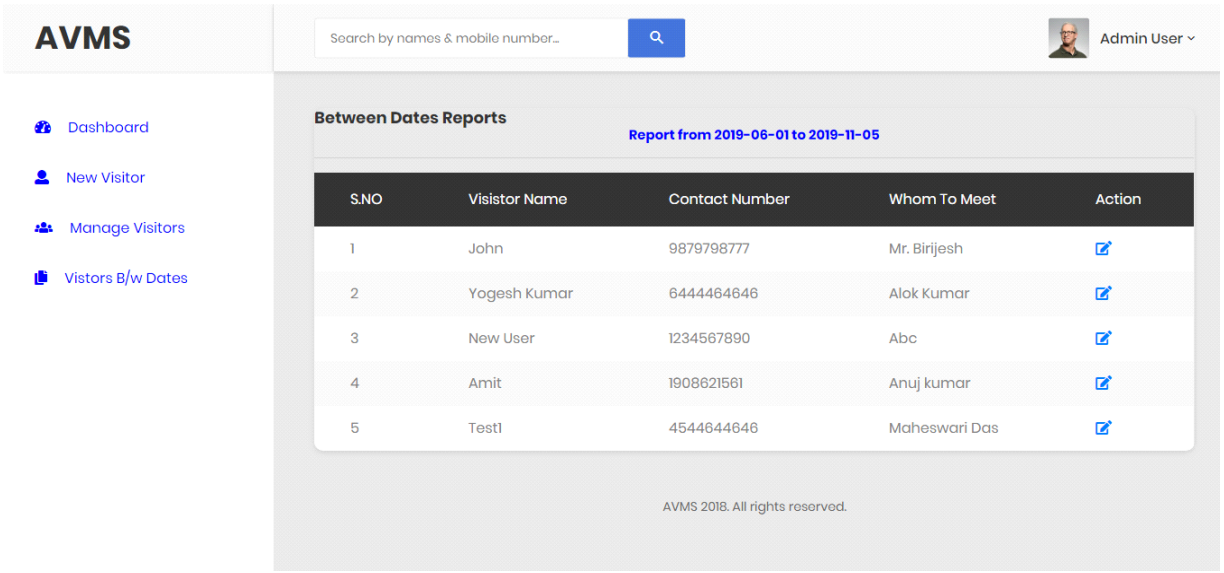
AVMS
Search by names & mobile number...
Admin User
Dashboard
New Visitor
Manage Visitors
Vistors B/w Dates
Between Dates Reports
Report from 2019-06-01 to 2019-11-05
S.NO
Visistor Name
Contact Number
Whom To Meet
Action
1 John 9879798777 Mr. Birijesh
2 Yogesh Kumar 6444464646 Alok Kumar
3 New User 1234567890 Abc
4 Amit 1908621561 Anuj kumar
5 Test1 4544644646 Maheswari Das
AVMS 2018. All rights reserved.

CONCLUSION:

This Application provides a computerized version of Apartment Visitor Management System which will benefit the society.

It makes entire process online and can generate reports. It has a facility of staff's login where staff can fill the visitor details and generate report.

The Application was designed in such a way that future changes can be done easily. The following conclusions can be deduced from the development of the project.

- Automation of the entire system improves the productivity.
- It provides a friendly graphical user interface which proves to be better when compared to the existing system.
- It gives appropriate access to the authorized users depending on their permissions.
- It effectively overcomes the delay in communications.
- Updating of information becomes so easier.
- System security, data security and reliability are the striking features.
- The System has adequate scope for modification in future if it is necessary.

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