PROJECT REPORT

On

“DIGITAL SOCIETY”

Submitted by

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CHAPTER – 1

INTRODUCTION

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- PROJECT SCOPE
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1.1 PROJECT SUMMARY

The basic concept of this system, we create global web-based application in DJANGO with PYTHON language to manage Society with House and Owner of house detail. We provide platform to register society to our system, and there are many houses according to each society. Each house allocated to owner of house, all the owner are members of our project. After becoming a member, they can login by email and password. All members can make online Complain, Event request, Suggestions so they can celebrate cultural event in society management.

FEATURES:

1. **Chairman (Admin)**
    - Chairman can Login by email and password and then manage their profile and update profile.
    - Chairman have to add Society Member/Watchman and notify by email with login credential.
    - They can view all society members and manage all society member.
    - Chairman can add notice and manage all notice.
    - Chairman can add Maintenance every month and can see the status of the member,
    - Chairman can view complains which will given by member or watchman.
    - They can add Events and manage all events
    - Chairman have to add Watchman and notify by email with login credential.

- Chairman can view all visitor list.
- Chairman can view all vehicle list of the society member.
- Chairman can view suggestions which will given by member or watchman and approve their suggestions.
- Chairman can view Event Requests which will give by member and approve their suggestions.

2. **Society Members**
   - Member can Login by email and password.
   - Member can manage their profile and update profile.
   - They can view all society members and watchman and chairman.
   - Member can view notice.
   - Member can view event.
   - Member can add their vehicles.
   - Member can request for their event to chairman and see the status of the event if it's approved or not.
   - Member can add complains/suggestions.
3. **Watchman**
   - Watchman can login by email and password.
   - Watchman can manage and update their profile.
   - Watchman can view all members.
   - They can add complain/suggestion.
   - They can view all notice and event.
   - They can view vehicles list.
   - Watchman can add visitor.

1.2 PROJECT PURPOSE

Digital Society is a web-based software for residential and commercial complex & housing society. It is a management software is the platform to track overall society activity with professional feature. It also helps people to give any suggestion/ notice/ complain or any other things, which can help them. This Web based applications make more reliable for everybody.

Therefore, our main purpose or the primary goal of this project is to provide publicly available, data describing the intersection between all society members.

1.3 PROJECT SCOPE

The scope of this project can be enhanced further by adding many facilities for the members to reduce the extra work of the admin. The software is flexible enough to be modified and implemented as per future requirements. We have tried our best to pre- sent this free and user– friendly website to Society members. Message and Email alerts for various happenings in the society can be added to the system so that users do not miss the updates and happenings of the society. Society members can able to chat like what's app groups for better user experience are passed on as a future scope to work upon.

1.4 OBJECTIVES

The objective of this website is provide user-friendly environment.

1.4.1 MAIN OBJECTIVE

The main objective of this system is to provide a Web application for society members that manages the entire problem faced by a society that can be resolved by digitization. It should be generic for any society with minor customization

1.4.2 SECONDARY OBJECTIVE

The following are the detail objectives of the system.

- To implement a management system monthly collection of maintenance
- To maintain transparency.
- To notify important issues & complaints about the existing problems (water, cleanliness)
- Emergency alerts in situations of catastrophe

1.5 TECHNOLOGY AND TOOLS

The development of the application is planned using the open-source environment to increase its usability. All routines developed using the language Python, framework Django and operating system Window. Below is a brief description of the language Python, Window operating system, Django and Visual Studio Code used for writing codes.

1.5.1 FRONT-END TECHNOLOGY

- **HTML**: Hypertext Markup Language is the code that is used to structure a web page and its content.
- **CSS**: CSS is the language for describing the presentation of Web pages, including colours, layout and fonts.
- **Bootstrap:** It is a potent front-end framework used to create modern websites and web apps.
- **JavaScript:** It is a text-based programming language used on both the client-side and server-side that allows you to make web pages interactive.
- **AJAX:** Asynchronous JavaScript and XML.AJAX is a technique for creating fast and dynamic web pages. AJAX allows web pages to be

updated asynchronously by exchanging small amounts of data with the server behind the scenes. This means that it is possible to update parts of a web page, without reloading the whole page.

1.5.2 BACK-END TECHNOLOGY

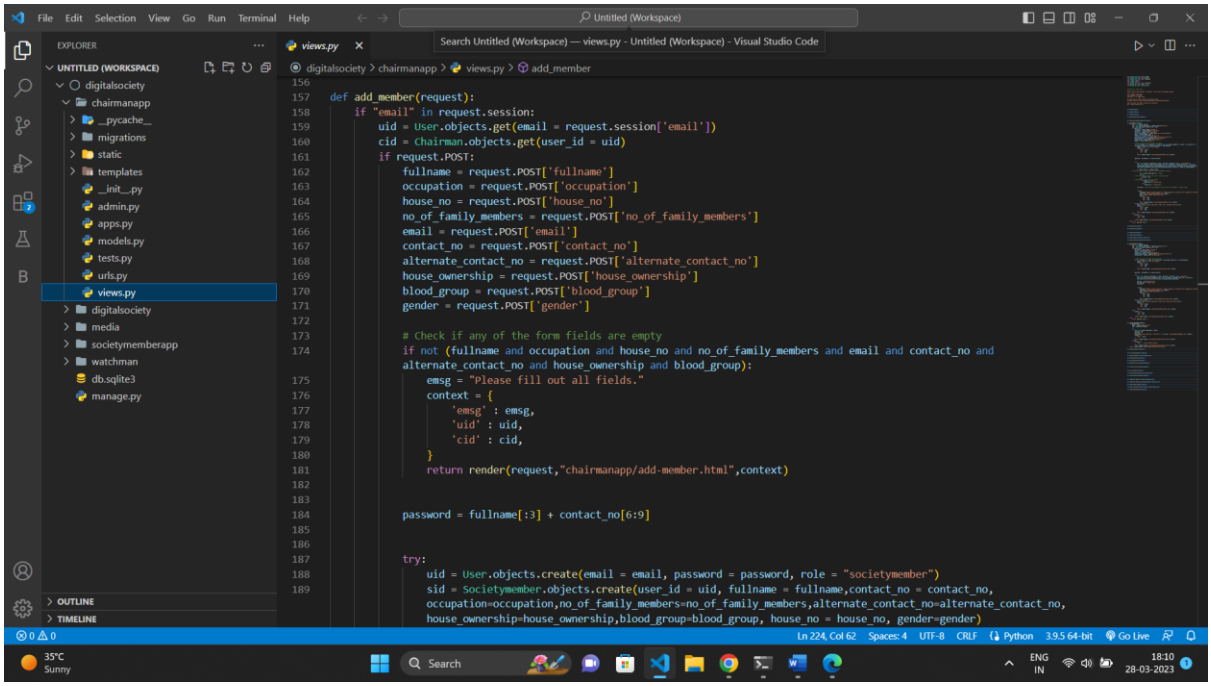
- **Django:** Django is a high-level Python web framework that enables rapid development of secure and maintainable websites.
- **Python:** Python is an interpreted high-level general-purpose programming language. Python's design philosophy emphasizes code readability with its notable use of significant indentation.
- **Database: MySQL**

  MySQL is a relational database management system based on SQL – Structured Query Language. The most common use for MySQL however, is for the purpose of a web database.

  SQLite – Django built-in database
- **Software genre:** Web Framework

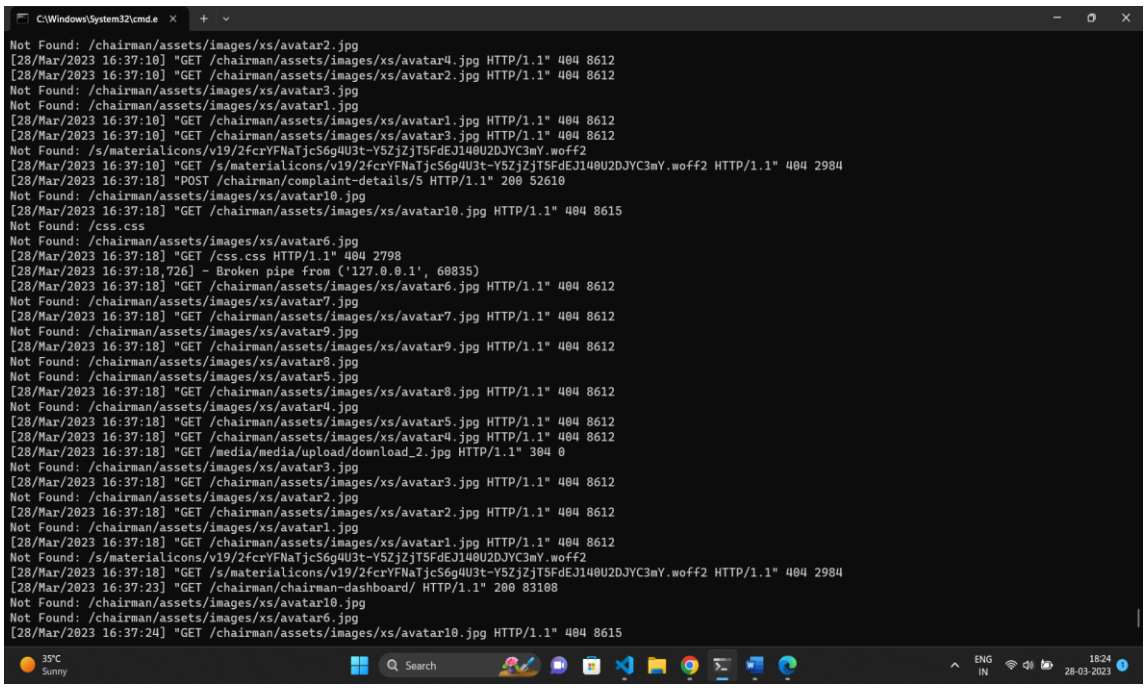
1.5.3 TOOLS USED

- **Visual Studio Code:** Visual Studio Code is a lightweight but powerful source code editor, which runs on your desktop and is available for Windows, macOS and Linux. It comes with built-in support for JavaScript, Typescript and Node.js and has a rich ecosystem of extensions for other languages (such as C++, C#, Java, Python, PHP, Go) and runtimes (such as .NET and Unity).



1.5.3.1 Visual Studio Code IDE

- **Command Prompt:** cmd.exe is the default command-line interpreter for the OS/2, eComStation, ArcaOS, Microsoft Windows, and ReactOS operating systems. The name refers to its executable filename. It is also commonly referred to as cmd or the Command Prompt, referring to the default window title on Windows.



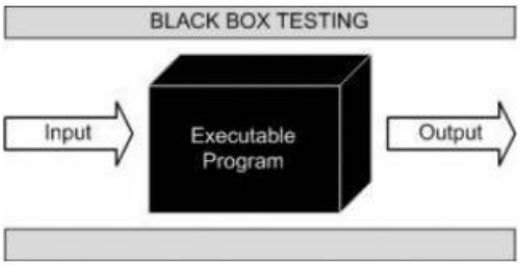
CHAPTER – 2

TESTING

- BLACK BOX TESTING
- WHITE BOX TESTING
- TEST CASE

2.1 BLACK BOX TESTING

In a black-box testing, a tester doesn't have any information about the internal working of the software system. Black box testing is a high level of testing that focuses on the behaviour of the software. It involves testing from an external or end-user perspective. Black box testing can be applied to virtually every level of software testing: unit, integration, system, and acceptance.



2.1.1 Black- Box Testing

This method is named so because the software program, in the eyes of the tester, is like a black box; inside which one cannot see. This method attempts to find errors in the following categories:

- Incorrect or missing function
- Interface errors
- Errors in data structures or external database access
- Behaviour or performance errors
- Initialization and termination errors

Example: A tester, without knowledge of the internal structures of a website, tests the webpages by using a browser; providing inputs (clicks, keystrokes) and verifying the outputs against the expected outcome.

ADVANTAGES:

- Tests are done from a user's point of view and will help in exposing discrepancies in the specifications.
- Testers need not know programming languages or how the software has been implemented.

DISADVANTAGES:

- Only a small number of possible inputs can be tested and many program paths will be left untested.
- Without clear specifications, which are situation in many projects, test cases will be difficult to design.
- Tests can be redundant if the software designer/developer has already run a test case.

6.2 WHITE BOX TESTING

White Box Testing is a software testing method in which the tester knows the internal structure/design/implementation of the item being tested. The tester chooses inputs to exercise paths through the code and determines the appropriate

outputs. Programming know-how and the implementation of knowledge is essential. White box testing is testing beyond the user interface and into the nitty-gritty of a system.

This method is named so because the software program, in the eyes of the tester, is like a white/transparent box; inside which one clearly sees.

Example: A tester, usually a developer as well, studies the implementation code of a certain field on a web page, determines all legal (valid and invalid) AND illegal inputs and verifies the outputs against the expected outcomes, which is also determined by studying the implementation code.

ADVANTAGES:

- Testing can be commenced at an earlier stage. One need not wait for the GUI to be available.
- Testing is more thorough, with the possibility of covering most path

DISADVANTAGES:

- Since tests can be very complex, highly skilled resources are required, with a thorough knowledge of programming and implementation.
- Since this method of testing is closely tied to the application being tested, tools to cater to every kind of implementation/platform may not be readily available.
- Test script maintenance can be a burden if the implementation changes too frequently.

2.3 TEST CASE

The purpose of testing is to discover errors. Testing is the process of trying to discover every conceivable fault or weakness in a work product. It provides a way to check the functionalities of components, sub-assemblies, and/or a finished product it is the process of exercising software with the intent of ensuring that the software system meets its requirements and user expectations and does not fail in an unacceptable manner. There are various types of tests. Each test type addresses a specific testing requirement.

2.3.1 CHAIRMAN (ADMIN) TEST CASE

TC No.	Test Case Description	Pre-Condition	Test Steps	Expected Result	Actual Result	Status
1	Chairman Login	Chairman has ID and Password	1)Open Login form 2) Enter Email and Password then click on Login Button.	If Email ID and Password is invalid then it will redirect to the login page with alert and if valid then it will go to the home page.	As expected	Pass
2	Manage Profile	Chairman must be logged in	Click on My Profile	On not filling any value it will unchanged otherwise it will updated.	As expected	Pass

3	Add and Manage Society Member	Chairman must be logged in	Click on Member and Fill the respective details.	On not filling any value it will unchanged otherwise it will updated.	As expected	Pass
4	Add and Manage Watchman	Chairman must be logged in	Click on Watchman and Fill the respective details.	On not filling any value it will unchanged otherwise it will updated.	As expected	Pass
5	Add and Manage Maintenance	Chairman must be logged in	Fill the respective details.	On not filling any value it will unchanged otherwise it will updated.	As expected	Pass
6	Add and Manage Events	Chairman must be logged in	Fill the respective details.	On not filling any value it will unchanged otherwise it will updated.	As expected	Pass
7	Add and Manage Notice	Chairman must be logged in	Fill the respective details.	On not filling any value it will unchanged otherwise it will updated.	As expected	Pass
8	View Visitor List	Chairman must be logged in	Click on the Visitor Link.	Show all Visitors	As Expected	Pass

9	View Vehicle List	Chairman must be logged in	Click on the Vehicles Link.	Show all Vehicles	As expected	Pass
10	View Suggestions of Society Members	Chairman must be logged in	Click on the Society Member Suggestion Link.	After clicking, it will show suggestions and approve it.	As expected	Pass
11	View Suggestions of the Watchman	Chairman must be logged in	Click on the Watchman Suggestion Link.	After clicking, it will show suggestions and approve it.	As expected	Pass
12	View Complaints of the Society Members and Watchman	Chairman must be logged in	Click on the Complaint Link.	After clicking, it will show complaints and approve it.	As expected	Pass
13	View Event Requests from the Society Member	Chairman must be logged in	Click on the Event Request Link.	After clicking, it will show all requests and approve it.	As expected	Pass
14	Logout	Chairman must be logged in	Click on the Logout Button.	Chairman is redirected to login page	As expected	Pass

2.3.2 SOCIETY MEMBER TEST CASE

TC No.	Test Case Description	Pre-condition	Test Steps	Expected Result	Actual Result	Status
1	Member login	Member has ID and Password	1) Open Login Form 2) Enter Email ID and Password then click on Login Button	If Email ID and Password is invalid then it will redirect to the Login page with alert and if valid then it will go to the Home Page of Member.	As expected	Pass
2	Manage Profile	Member must be logged in	Click on Profile and update	On not filling any value it will unchanged otherwise it will updated.	As expected	Pass
3	View Society Member	Member must be logged in	Click on Society Member	Show all Member List	As expected	Pass
4	View Notice	Member must be logged in	Click on Notice and Can view	Show All Notice	As expected	Pass
5	View Watchman	Member must be logged in	Click on Watchman	Show all Watchman List	As expected	Pass
6	View Chairman	Member must be logged in	Click on Chairman	Show the Chairman Profile	As expected	Pass

7	Add and Manage Family Members	Member must be logged in	Click on the link Family Member	After clicking, can add and view Family Members	As expected	Pass
8	View Event	Member must be logged in	Click on Events and can view	Show all Events	As Expected	Pass
9	Add and Manage Vehicles	Member must be logged in	Click on the link Vehicles	After clicking, can add and view Vehicles	As expected	Pass
10	Add and Manage Suggestions	Member must be logged in	Click on the link Suggestions	After clicking, can add and view Suggestions	As expected	Pass
11	Add and Manage Complaints	Member must be logged in	Click on the link Complaints	After clicking, can add and view Complaints	As expected	Pass

12	Add and Manage Requests for Event	Member must be logged in	Click on the link Request Event	After clicking, can add and view the Requests for Event	As expected	Pass
13	View Maintenance	Member must be logged in	Click on the link Pay Maintenance	After Clicking, can view the Maintenance and there is a display button of Pay if it is clicked then the status of maintenance will update to PAID	As expected	Pass
14	Logout	Member must be logged in	Click on the Logout button	Member is redirected to login page	As expected	Pass

2.3.3 WATCHMAN TEST CASE

TC No.	Test Case Description	Pre-condition	Test Steps	Expected Result	Actual Result	Status
1	Watchman login	Watchman has ID and Password	1) Open Login Form 2) Enter Email ID and Password then click on Login Button	If Email ID and Password is invalid then it will redirect to the Login page with alert and if valid then it will go to the Home Page of Watchman.	As expected	Pass
2	Watchman Profile	Watchman must be logged in	Click on Profile and update	On not filling any value it will unchanged otherwise it will updated.	As expected	Pass
3	View Society Member	Watchman must be logged in	Click on Society Member	Show all Member List	As expected	Pass
4	View Notice	Watchman must be logged in	Click on Notice and Can view	Show All Notice	As expected	Pass
5	View Chairman	Watchman must be logged in	Click on Chairman	Show the Chairman Profile	As expected	Pass

6	Add and Manage Visitors	Watchman must be logged in	Click on the link Visitors	After clicking, can add and view Visitors	As expected	Pass
7	View Event	Watchman must be logged in	Click on Events and can view	Show all Events	As Expected	Pass
8	View Vehicles	Watchman must be logged in	Click on the link Vehicles	After clicking, can view Vehicles	As expected	Pass
9	Add and Manage Suggestions	Watchman must be logged in	Click on the link Suggestions	After clicking, can add and view Suggestions	As expected	Pass
10	Add and Manage Complaints	Watchman must be logged in	Click on the link Complaints	After clicking, can add and view Complaints	As expected	Pass

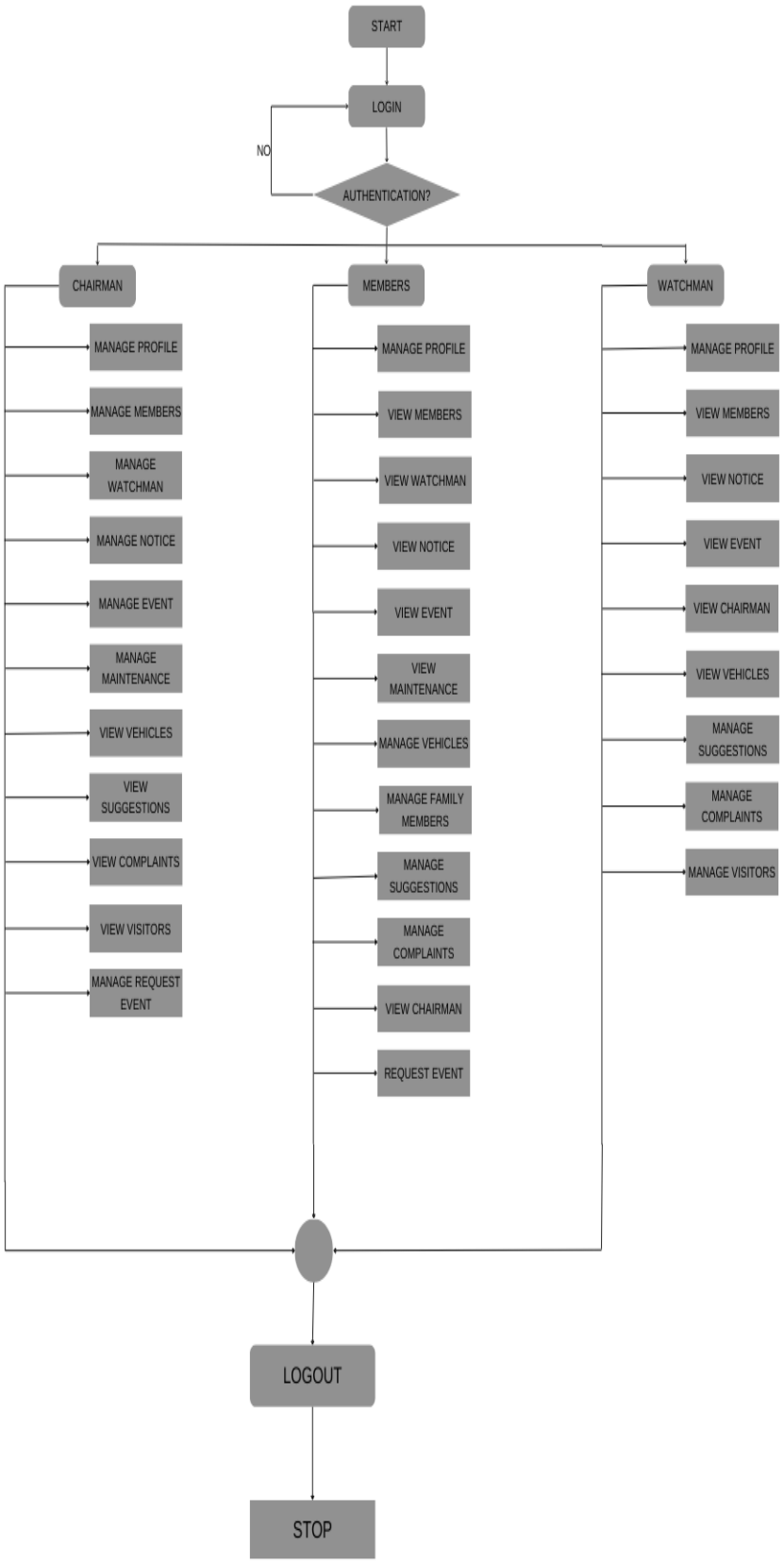
11	Logout	Watchman must be logged in	Click on the Logout button	Watchman is redirected to login page	As expected	Pass

CHAPTER – 3

SYSTEM DESIGN

- SYSTEM FLOW DIAGRAM

3.1 SYSTEM FLOWCHART



CHAPTER – 4

FUTURE ENHANCEMENT

4.2 FUTURE ENHANCEMENT

The project can be enhanced by including the live meeting session if anyone want to attend the meeting from remote area then the can attend it. Also one can provide an app to the gatekeeper which is connected to main application so in case of emergency vii. he or she can alert all the members in the society. The society member should connect with the live cameras which are placed around the society. Connecting through live cameras member can track the ongoing events and it also used for security purpose

This project can be enhanced further by Developing a Mobile App. Also we can Develop a Full Fledged accounting module. The software is flexible enough to be modified and implemented as per future requirements.

This project can be enhanced further by adding online payment facility for the members to reduce the extra work of the admin. The software is flexible enough to be modified and implemented as per future requirements. We have tried our best to pre- sent this free and user–friendly website to Society members. Message and Email alerts for various happenings in the society can be added to the system so that users do not miss the updates and happenings of the society.