

KUDUMBASREE UNIT AUTOMATION

Main Project Report

Submitted by

ANAGHA M U

Reg No : FIT20MCA-2016

*Submitted in partial fulfillment of the requirements for the award of the
degree of*

***Master of Computer Applications
Of***

A P J Abdul Kalam Technological University



**FEDERAL INSTITUTE OF SCIENCE AND TECHNOLOGY (FISAT)®
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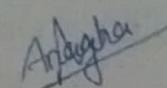
JULY 2022

DECLARATION

I hereby declare that the report of this project work, submitted to the Department of Computer Applications, Federal Institute of Science and Technology (**FISAT**), Angamaly in partial fulfillment of the award of the degree of Master of Computer Applications is an authentic record of my original work.

The report has not been submitted for the award of any degree of this university or any other university.

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Tel: (O) 0484-2725272 Fax: 0484 – 2725250 E-mail: mail@fisat.ac.in Website: www.fisat.ac.in

11TH July 2022

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr./Ms. ANAGHA M. U (Reg. No. FIT20MCA-2016) has successfully completed his/her Main Project with the title "KUDUMBASREE UNIT AUTOMATION", in the Department of Computer Applications, FISAT, during the period from 30th March 2022 to 11th July 2022.

Dr DEEPA MARY MATHEWS
HEAD OF THE DEPARTMENT



FEDERAL INSTITUTE OF SCIENCE AND TECHNOLOGY (FISAT)®
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DEPARTMENT OF COMPUTER APPLICATIONS



CERTIFICATE

This is to certify that the project report titled "**KUDUMBASREE UNIT AUTOMATION**" submitted by **ANAGHA M U** [Reg.No : FIT20MCA-2016] towards partial fulfillment of the requirements for the award of the degree of Master of Computer Applications is a record of bonafide work carried out by her during the year 2022.

A handwritten signature in blue ink, appearing to read "Santhosh".

Project Guide

Dr.Santhosh Kottam



Head of the Department

Dr.Deepa Mary Mathews

A handwritten signature in blue ink, appearing to read "Deepa Mary Mathews".

Submitted for the viva-voce held on.....at.....

Examiner:

ACKNOWLEDGEMENT

Gratitude is a feeling which is more eloquent than words, more silent than silence. To complete this project work i needed the direction, assistance and cooperation of various individuals, which is received in abundance with the grace of God.

I hereby express my deep sense of gratitude to **Dr. Manoge George**, Principal of FISAT and **Dr. C Sheela**, Vice principal of FISAT, for allowing me to utilize all the facilities of the college. Our sincere thanks to **Dr.Deepa Mary Mathews**, Head of the department of MCA, FISAT, who had been a source of inspiration . During the period of my project work, I have received generous help from **Dr.Santhosh Kottam**, my project guide ,**Ms.Rose Mary Mathews**, my Scrum master, which I like to put on record here with deep gratitude and great pleasure.

Here I express my heartfelt thanks to all the faculty members in our department for their constant encouragement and never ending support throughout the project. I also express my boundless gratitude to all the lab faculty members for their guidance.

Finally I wish to express a whole heart-ed thanks to my parents, friends and well-wishers who extended their help in one way or other in preparation of my project. Besides all, I thank GOD for everything.

ABSTRACT

Women Empowerment in Kerala is usually known as “Kudumbashree”. Kudu mbashree is an innovative initiated to which engendering development in Kerala is formed with a view to help the poverty stricken people to take initiative for a practical solution to poverty. The Government of Kerala launched the program with the active support of the govt of India. It also aims at women empowerment, increasing in the income of women fellowship, appointment, women and child, social development etc.

The project work title “Kudumbasree Unit Automation” is a mobile application for Kudumbashree unit. The project objective is to make the jobs of Kudumbashree units under a Panchayath more easier and work without any hindrances of those jobs were done manually currently. This takes more time and hard work. This project can overcome all the problems of admin duties and the data will be safe and secured.

The principle of the system is that the details of Kudumbashree is stored in computer system. By using this system, any user can easily take the details of the Kudumbashree. It may be adding report, deposit, expenses, loan details etc. The proposed system is developed in android, java(front end) and PHP(back end). This application generates report both monthly and weekly and saves our time.

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Chapter 1

INTRODUCTION

The project “Kudumbasree Unit Automation” is a mobile application for Kudumbashree unit. The project is to make the jobs of Kudumbashree units under a Panchayath more easier and work without any hindrances of those jobs were done manually currently. This takes more time and hard work. This project can overcome all the problems of admin duties and the data will be safe and secured.

The first step in the system study includes analysis of the system. System analysis involves studying the way an organization currently receives and process data to produce information with the goal of determining how to make it work better. System analysis includes both a preliminary and a detailed stage. During preliminary analysis the analysis takes a quick look at what is needed and whether it benefits the perceived want. Detailed analysis includes an in depth look at what is wanted and contains more refined cost and benefits studies. The preliminary analysis begins when someone perceives a problem, modifications to existing, repairs to an existing system or demands an entirely new system. The analyst summarizes the gained modifications, including personal requirements and potential benefits of the new system in formal report called the preliminary report. Detailed analysis expands the preliminary efforts to include the complete analysis of all possible alternative solutions to the problem and complete expansion of what appears to be the most practical solution.

The system study is the process of gathering and interpreting facts, using this information for further studies on the system. It does various feasibility studies. In these studies, a rough figure of the system activities can be obtained, from which the decisions about the strategies to be followed for effective system study and analysis can be taken. The system study also identifies the method collection to be followed. The system study conducted an initial picture about the system working was got. From the information got form the study, the data collection methods are identified. Even in the first investigation itself drawbacks of the existing system could be identified.

Analysis involves the requirement determination and specifications. Basically, it involves establishing for all the system elements and then mapping these requirements to the software form. The analysis is intended to capture and describe all the requirements of the system and to make a model that defines a key domain classis in the system. The purpose is to provide an understanding and to enable a communication about the system between the developers and the people establishing the requirements. Therefore, the analysis is typically terms of code or programs during this phase; it is the first step towards really understanding the requirements.

Chapter 2

SYSTEM ANALYSIS

2.1 EXISTING SYSTEM

In traditional method, all information is stored in books, ie, book keeping method is followed. The study phase reveals that the system of administration kudumbashree uses a manual system for various manipulation and activities, that is, all operation associated with the current system are handling manually. In current system all transaction and their report are recorded in paper files and store these files in shelf so the storage area of these file is shelf.

In current system there is a chance of unauthorised access of date this may cause change of origin in the current system all calculation is done in manually. For this purpose, the organization need a person with well mathematical knowledge and also this is manual calculation take more time and chance of error is very high so it cannot produce accurate result at every time. It is difficult to place an order to files, so searching of a file is also very difficult and it is consuming process.

In existing system, all operations are done in manually so it takes more time it also increases the work of womens so we need many members this also increases in the cost of existing system. The unauthorized access of data Leads to loss of privacy. In the existing system there is no security for important file while we handling it manually date

also loss the date.

Limitation of Existing System

- The existing system is time consuming.
- Low processing speed
- There is a chance of redundancy
- Current system does not provide any security
- Difficult produce report

2.2 PROPOSED SYSTEM

The proposed system for kudumbashree overcomes most of the limitation of present system. So it is necessary to computerised the present system. Thus we got a better control over the system and the new system ready to solve all requirements of the user.

The structure and characteristic of different file were to be redesigned, eliminatin all the limitation of the existing system and to make the system and to take the system mor efficient and user friendly. The proposed system is aimed to reduce the manual work, reduce storage space, increase the speed of retrieval and produce more accurate result and also provide more security.

Advantage of Proposed System

- Making searching and updating very easy
- User friendly
- Prevent data dependency

- Helps to make well formatted reports Reduce work load of women
- Reduce complexity of manual calculations and work
- better security provides

2.3 SYSTEM SPECIFICATION

A software requirement specification (SRS), a requirements specification for a software system, is a complete description of the behaviour of a system to be developed and may include a set of use cases that describe interactions the users will have with the software. In addition, it also contains non-functional requirements. Nonfunctional requirements impose constraints on the design or implementation (such as performance engineering requirements, quality standards, or design constraints) The software requirements specification document enlists all necessary requirements that are required for the project development. To derive the requirements, we need to have clear and thorough understanding of the products to be developed.

2.4 SOFTWARE SPECIFICATION

The selection of software is very important in the existence and proper working of any software. When selecting software, the size and capacity requirements are also important. Below are some of the software that is required for the system.

Operating System	64-bit Microsoft® Windows® 8/10/11
Programming Language	Java, Android
RDBMS	MYSQL
Web Server	Apache Tomcat & Glassfish Server
Scripting language	JSP

2.5 HARDWARE SPECIFICATION

The most common set of requirements defined by any operating system or software application is the physical computer resources, also known as hardware. A hardware requirements list is often accompanied by a hardware compatibility list (HCL), especially in case of operating systems. An HCL lists tested, compatible, and sometimes incompatible hardware devices for a particular operating system or application. I require much different software to make the application which is in making to work efficiently. It is very important to select the appropriate software so that the software works properly.

Main Processor	Intel core i3 or above
RAM	8 GB or Above
Keyboard	Standard 108 keys
Mouse	3D Optical mouse
Monitor	15" Standard
Hard disk	10 GB of available disk space minimum or Above

Chapter 3

IMPLEMENTATION

The implementation phase of the software development is concerned with translating design specification into source code. The user tests the developed system and changes are made according to their needs. Our system has been successfully implemented. Before implementation several tests have been conducted to ensure that no errors are encountered during the operation. The implementation phase ends with an evaluation of the system after placing into the operation for a period of time. The process of putting the developed system in actual use is called system implementation. This includes all those activities that take place to convert from old system to new system. The system can be implemented only after testing is done and is found to be working to specifications. The implementation stage is a systems project in its own right. The implementation stage involves following tasks:

- Careful planning.
- Investigation of system and constraints.
- Design of method to achieve changeover.
- Evaluation of the change over method.

3.1 TOOLS AND PLATFORM

3.1.1 FRONT END

ANDROID :

Android is a Linux based operating system designed primarily for touch screen mobile devices such as smart phones and tablet computers. Android is open source and Google releases the code under the Apache License. This open-source code and permissive licensing allows the software to be freely modified and distributed by device manufacturers, wireless carriers and enthusiast developers. Additionally, Android has a large community of developers writing applications that extend the functionality of devices, written primarily in a customized version of the Java programming language. Android is an open source mobile operating system that combines and builds up on parts of many different open source projects.

Android's kernel is based on the Linux kernel and has further architecture changes by Google outside the typical Linux kernel development cycle. Android does not have a native Window System nor does it support the full set of standard GNU libraries, and this makes it difficult to port existing Linux applications or libraries to Android. Android's user interface is based on direct manipulation using touch inputs that loosely correspond to real world actions, like swiping, tapping, pinching and reverse pinching to manipulate on screen objects. Android devices boot to the home screen, the primary navigation and information point on the device, which is similar to the desktop found on PCs. Android home screens are typically made up of applications and widgets; applications launch the associated app, whereas widgets display live, auto updating content such as the weather forecast, the user's email inbox, or a news ticker directly on the home screen.

- Graphical user interfaces
- web frameworks
- frameworks

- Multimedia
- Database
- Networking

JAVA :

Java is a general purpose computer programming language that is concurrent, class based, object oriented, and specifically designed to have as few implementation dependencies as possible. It is intended to let application developers quot;write once, run anywhere & quot; (WORA), meaning that compiled Java code can run on all platforms that support Java without the need for recompilation. Java applications are typically compiled to byte code that can run on any Java virtual machine (JVM) regardless of computer architecture. As of 2016, Java is one of the most popular programming languages in use, particularly for client server web applications, with a reported 9 million developers. Java was originally developed by James Gosling, a Canadian, at Sun Micro systems (which has since been acquired by Oracle Corporation) and released in 1995 as a core component of Sun Micro systems 39; Java platform. The language derives much of its original features from Small talk, with a syntax similar to C and C++, but it has fewer low level facilities than either of them.

The original and reference implementation Java compilers, virtual machines, and class libraries were originally released by Sun under proprietary licenses. As of May 2007, in compliance with the specifications of the Java Community Process, Sun relicensed most of its Java technologies under the GNU General Public License. Others have also developed alternative implementations of these Sun technologies, such as the GNU Compiler for Java (byte code compiler), GNU Class path (standard libraries), and Iced Tea Web (browser plugin for applets).

The latest version is Java 11, released on September 25, 2018. Java 11 is a

currently supported long term support (LTS) version ("Oracle Customers will receive Oracle Premier Support"); Oracle released for the "legacy" Java 8 LTS the last "public update", which is free for commercial use, in January 2019. Oracle will still support Java 8 with public updates for personal use up to at least December 2020. Oracle (and others) highly recommend that you uninstall older versions of Java because of serious risks due to unresolved security issues. Since Java 9 is no longer supported, Oracle advises its users to "immediately transition" to Java 11. Oracle extended support for Java 6 ended in December 2018.

PHP :

The term PHP is an acronym for PHP: Hypertext Preprocessor. PHP is a server side scripting language designed specifically for web development. It is open source which means it is free to download and use. It is very simple to learn and use. The files have the extension ".php". PHP code is executed in the server. It can be integrated with many databases such as Oracle, Microsoft SQL Server, MySQL, PostgreSQL, Sybase, and Informix. It is powerful to hold a content management system like WordPress and can be used to control user access. It supports main protocols like HTTP Basic, HTTP Digest, IMAP, FTP, and others. Websites like www.facebook.com and www.yahoo.com are also built on PHP. One of the main reasons behind this is that PHP can be easily embedded in HTML files and HTML codes can also be written in a PHP file. The thing that differentiates PHP from the client-side language like HTML is, that PHP codes are executed on the server whereas HTML codes are directly rendered on the browser. PHP codes are first executed on the server and then the result is returned to the browser. The only information that the client or browser knows is the result returned after executing the PHP script on the server and not the actual PHP codes present in the PHP file. Also, PHP files can support other client-side scripting languages like CSS and JavaScript.

3.1.2 BACK END

MYSQL :

MySQL is a relational database management system (RDBMS) which is used by more than 11 million institutions. The program runs as a server providing multiuser access to a number of databases. MySQL is owned and sponsored by a single for profit firm, the Swedish company MySQL AB, now a subsidiary of Sun Micro systems, which holds the copyright to most of the code base. The project's source code is available under terms of the GNU General Public License, as well as under a variety of proprietary agreements.

Chapter 4

SYSTEM DESIGN

System design is an interactive process through which requirement are transmitted to a “blue print” for constructing the software initial; the blue print depicts a holistic view of software that is design is represented at a high-level abstraction a level that can be directly traced to specific data, functional and behavioral requirement. System design is the solution to the creation of a new system. This is the important aspect made up of several steps. System design is the process of developing specifications for a candidate system that meet the criteria established in the system analysis. Major step in system design is the preparation of the input forms and output reports in a form applicable to the users.

The main objective of system design is to use the package easily by a computer operator. System design is the creative act of invention, developing new inputs, a database, offline files, method, procedures and output for processing business to meet an organization objective. System design built information gathered during the system analysis. As design interaction occur subsequent refinement leads to design representation at much lower level of abstraction. System design is a creative art of inventing and developing input, data bases, offline files, method and procedures, for processing data to get meaning full output that satisfy the organization objectives. Through the design phase consideration to the human factor, that is inputs to the users will have on the system.

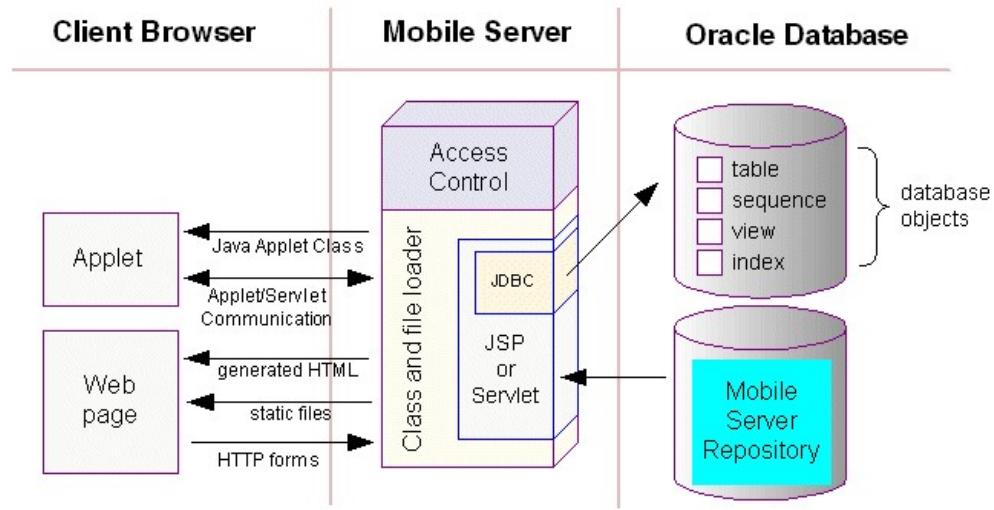


Figure 4.0 : System Design

4.1 INPUT DESIGN

Input design is the process of converting user oriented input to a based format. Inaccurate input data are the most common cause of errors in data processing. Errors entered by data entry operators can be controlled by input design. The goal of designing input data is to make data entry as easy, logical and free from errors. When we approach input data design; we design the data source documents that capture the data and then select the media used to enter them into computer.

User friendly screen format can reduce the burden on end users, who are not highly proficient in computers. An important step in input design stage is a design of source document. Source document is the form in which the data can initially capture. The next step is the design of the document layout. In the layout organizes the document by placing information, where it will be noticed and establishes the appropriate sequence of items. User interface design is very important for any application. The interface design describes how the software communicates within itself, to system that interpreted with it and with humans who use it. The input design is the process of converting the user

oriented inputs into the computer based format. Input design is apart of overall system design, which requires very careful attention. If data going into the system is correct, then the processing and output will magnify these errors. Thus, the designer has a number of clear objectives in the different stages of input design

1. To produce a cost effective method of input.
2. To achieve the highest possible level of accuracy.
3. To ensure that input is acceptable to and understand by the user.

In accurate input data is most common cause of data processing errors. If poor input design particularly where operators must enter data from source documents permits bad data to enter a computer system, the outputs produced are of little value. The input design process was initiated in the study phase were, as a part of the feasibility study:

1. Input data were found to be available for establishing and maintaining master and transaction files and for creating output records
2. The most suitable types of input media, for either offline or online devices were selected after a study of alternative data capture techniques

The data is fed into the system using simple inactive forms. The forms have been supplied with messages so that the user can enter data without facing any difficulty. This data is validated where verity requires in the project. This ensures that only the correct data have been incorporated into system. The goal of designing input data is to make the automation as easy and free from errors as possible. For providing a good input design for the application easy data input and selection features are adopted. The input design requirements such as user friendliness, consistent format and interactive dialogue forgiving the right messages for the user at the right time are also considered for development for this project.

4.2 OUTPUT DESIGN

Computer output is the most important and direct source of information to the user. Efficient and intelligent output design improves the system's relationship and helps user decision making. In the output design it is determined how the implementation is to be played for immediate need and also the hard copy output. A major form of input is a hard copy from the printer. Print outs should be designed around the output requirement of the user. Printers, CRT screen display are the examples for providing computer based output. The output design associated with the system includes the various reports of the table generations and query executions. A quality output is one, which meets the requirements of end user and presents the information clearly. In any system result of processing are communicated to the user and to the other system through outputs. In the output design it is determined how the information is to be displayed for immediate need. It is the most important and direct source in formation to the user. Efficient and intelligent output design improves the system's relationships with the user and helps in decision making.

The objective of the output design is to convey the information of all the past activities, current status and to emphasize important events. The output generally refers to the results and information that is generated from the system. Outputs from computers are required primarily to communicate the results of processing to the users. Output design is one of the, most important features of the information system. The logical design of an information system is analogous to an engineering blue print of an automobile. It shows the major features and how they are related to one another. The outputs, inputs and databases are designed are in this phase. At the beginning of the output design various types of outputs such as external, internal, operational, and interactive and turnaround are defined. Then the format, content, location, frequency, volume and sequence of the outputs are specified. The content of the output must be defined in detail. The system analysis has two specific objectives at this stage.

- To interpret and communicate the results of the computer part of a system to the users in a form, which they can understand, and which meets their requirements.
- To communicate the output design specifications to programmers in a way in which it is unambiguous, comprehensive and capable of being translated into a programming language.

4.3 DATABASE DESIGN

The Database design is the process of producing a detailed data model of a database. The logical data model contains all the needed logical and physical design choices and physical storage parameters needed to generate a design in a Data Definition Language, which can then be used to create a database. A fully attributes for each entry. The term database design can be used to describe many different parts of the design of an overall data base system. Principally, and most correctly, it can be thought the logical design of the base data structures used to store the data. In the relational model, these are the tables and views. In an object data base, the entities and relationships map directly to object classes and named relationships. However, the term data base design could also be used to apply to the overall process of designing, not just the base data structures, but also the forms and queries used as part of the overall data base applications within the database management system.

4.4 USE CASE DESIGN

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. The main purpose of a use case diagram is to portray the dynamic aspect of a system. It accumulates the system's requirement, which includes both internal as well as external influences. It invokes persons, use cases, and several things that invoke the actors and elements accountable for the implementation of use case diagrams.

It represents how an entity from the external environment can interact with a part of the system. It is essential to analyze the whole system before starting with drawing a use case diagram, and then the system's functionalities are found. And once every single functionality is identified, they are then transformed into the use cases to be used in the use case diagram. After that, we will enlist the actors that will interact with the system. The actors are the person or a thing that invokes the functionality of a system. It may be a system or a private entity, such that it requires an entity to be pertinent to the functionalities of the system to which it is going to interact. Once both the actors and use cases are enlisted, the relation between the actor and use case/ system is inspected. It identifies the no of times an actor communicates with the system. Basically, an actor can interact multiple times with a use case or system at a particular instance of time. These are the purposes of a use case diagram :

- It gathers the system's needs.
- It depicts the external view of the system.
- It represents the interaction between the actors.

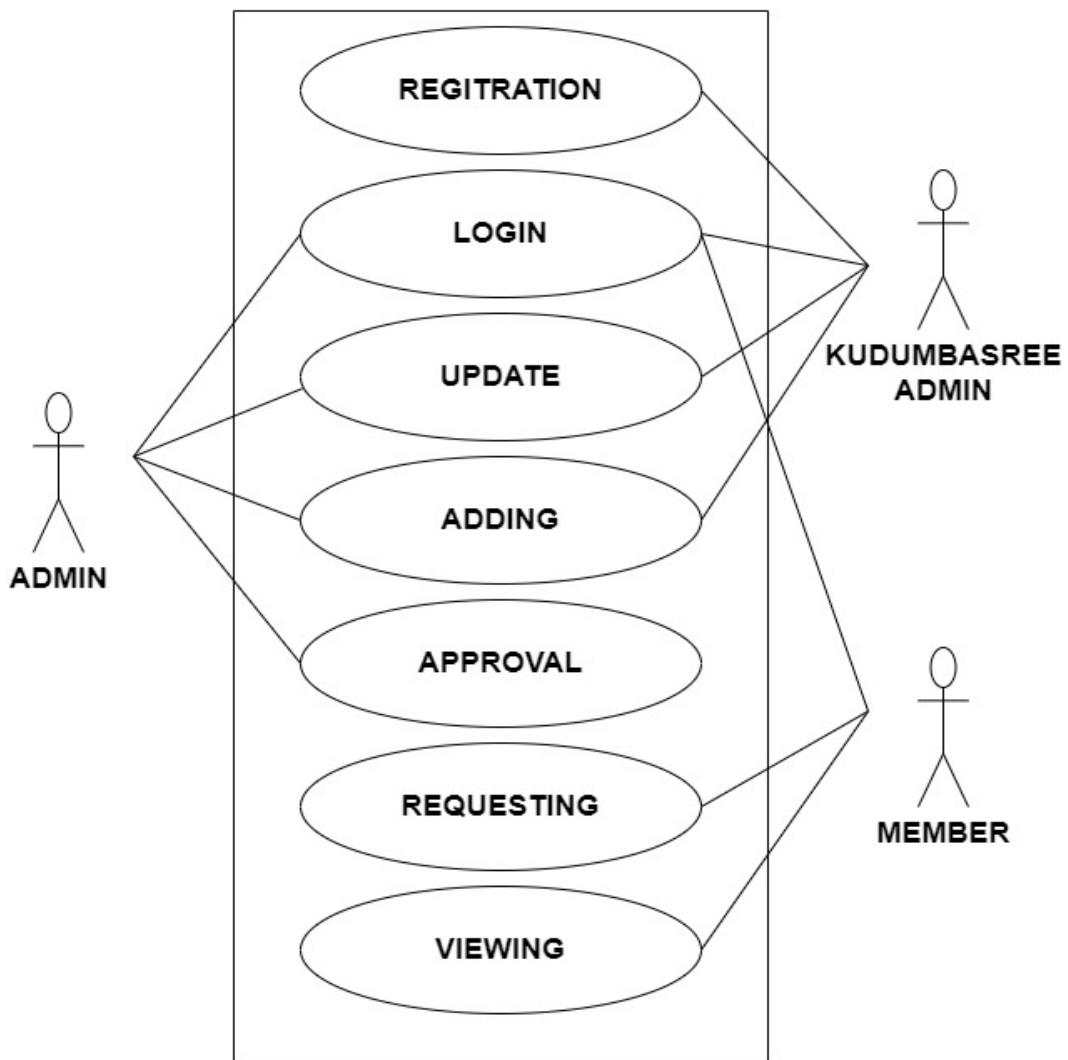


Figure : Use Case Diagram

4.5 TABLE DESIGN

Table 4.1: Kudumbasree Registration

ColumnName	DataType	Description
Id_Ksree	Int	Id for kudumbasree
Name	Varchar	Kudumbasree Name
Regno	Varchar	Register number
Unit	Varchar	Name of Unit
Panchayath	Varchar	Name of Panchayath
Village	Varchar	Name of Village
District	Varchar	Name of District
Logid	Varchar	Login Id
President	Varchar	Name of President
Secretary	Varchar	Name of Secretary

Table 4.2: Login Details

ColumnName	DataType	Description
Id_login	Int	Login Id
UserName	Varchar	Name of User
Password	Varchar	Login Password
UserType	Varchar	Type of User
Status	Varchar	Status

Table 4.3: Loan Details

ColumnName	DataType	Description
Id_Loan	Int	Loan Id
Name	Varchar	Name of Loan
Interest	Varchar	Loan Interest
Permonth	Varchar	Permonth
Period	Varchar	Loan Period
Amount	Varchar	Loan Amount

Table 4.4: Activity

ColumnName	DataType	Description
Id_Activity	Int	Activity id
Title	Varchar	Title for Activity
Description	Varchar	Description of Activity
Panchayath	Varchar	Name of Panchayath
Amount	Varchar	Amount

Table 4.5: Loan Applications Details

ColumnName	DataType	Description
Id_loanappli	Int	Id for Loan Application
Loan_id	Varchar	Loan Id
User_id	Varchar	User Id
TakenDate	Varchar	Loan Taken Date
Status	Varchar	Loan Status

Table 4.6: Meeting Details

ColumnName	DataType	Description
Id_meeting	Int	Meeting Id
Title	Varchar	Meeting Title
Des	Varchar	Description
Venue	Varchar	Meeting Venue
Date	Varchar	Meeting Date
Time	Varchar	Meeting Time
UserId	Varchar	User Id

Table 4.7: Payment Details

ColumnName	DataType	Description
Id_payment	Int	Payment Id
Loanid	Varchar	Loan Id
Memberid	Varchar	Member Id
loanamount	Varchar	Loan Amount
permonth	Varchar	Permonth
balance	Varchar	Balance Amount
pdate	Varchar	Payment Date

Table 4.8: Member Details

ColumnName	DataType	Description
Id_member	Int	Member Id
Mname	Varchar	Member Name
aadhar	Varchar	Aadhar Number
acno	Varchar	Account Number
Userid	Varchar	User Id
logid	Varchar	Login Id
Email	Varchar	Member Email

Chapter 5

SYSTEM DEVELOPMENT

5.1 MODULE DESCRIPTION

5.1.1 USER MANAGEMENT

User management module contains details related to registration and login into the app.Registered users can use the app properly.Without Registration the users cannot use the application.

5.1.2 LOAN MANAGEMENT

User request for the loan and president approves the loan if the person is eligible then the user get a notification from the president.Loa management modules contains details of loan .User can request for loan.President approves the loan if the user is eligible and notification is given to the users

5.1.3 EVENT SCHEDULING

President schedules the meeting date and update the users.Members can view the meeting details.

Chapter 6

SYSTEM IMPLEMENTATION

6.1 TESTING

Testing is an important stage in the software development life cycle. System testing is a critical element of a software quality assurance and represents the ultimate review of specification, design and coding.

Importance of software testing and its implication with software quality cannot be over emphasized. Testing is one way developers can validate the quality of a software product and verify that it fully meets the specification. During testing, the system is tested with a set of cases and checked whether the input of the program is performing as it is expected. The system tested and reviewed to ensure that the entire user requirement has been satisfied.

Testing was done throughout the system development at various stages since it is always a good practice to test the system at many different levels at various intervals that is sub systems, program modules as work progress and finally the system as a whole. If this is not done, then the poorly tested system can fail after installation. Testing is a very tedious and time consuming job. For a test to be successful the tester should try and make the program file. Each test is designed with the intention of finding errors in the way system will process it. Though testing of a program doesn't guarantee the reliability

of the system, it is done to assure that the system runs errors free. The Testing process begins by developing a comprehensive plan to test the general functionality and special features on a variety of platform combinations. Strict quality control procedures are used. The Process verifies that the application meets the requirements specified in the system requirements document and is bug free.

At the End of each testing day, the summary of completed and failed tests is prepared. And the Application is redeveloped and retested until every item is resolved. All the changes and retesting are tracked through spread sheets. Applications are not allowed to launch until all identified problem are fixed. Finally, a report is prepared at the end of testing to show exactly what was tested and to list the final outcomes. The software testing methodology is applied in four distinct phases:

- Unit Testing
- Integration Testing
- User Acceptance Testing
- Output Testing

6.1.1 UNIT TESTING

Developers typically do unit testing in order to trace out bugs in each module of the code. Unit testing is done in parallel with coding. It includes testing each function and procedures. Unit testing is also called as module testing. In module testing each module are tested for any possible logical error. They are also tested for specification to see if they are working as per the program should do and they are tested under various conditions. Each module is being tested thoroughly in order to discover pitfalls. Specification testing examines the specification what the program should do and how it should perform under various conditions. The testing will be done by entering data into different tables using forms. The data with less validation will be tested first. Whenever an error is encountered, an informative error message will be displayed which informs user about the type of error. After the completion of form testing the program will be tested. The unit testing is done to

identify.

- The image entries are in the correct format.
- No duplicate entries are present.
- To check whether it provide the required result.

6.1.2 INTEGRATION TESTING

Integration testing is any type of software testing that seeks to verify the interfaces between components against a software design. Software components may be integrated in an iterative way or all together ("big bang"). Normally the former is considered a better practice since it allows interface issues to be located more quickly and fixed. Integration testing works to expose defects in the interfaces and interaction between integrated components (modules). The task of the integration test is to check that components or software applications, interacts without error. Therefore, testing the data flow between 2 modules is integration testing.

6.1.3 USER ACCEPTANCE TESTING

User acceptance testing is done by the user to check whether the project has met the requirement that has been mentioned at the beginning of the project. Flood alert is tested by the user by inputting values and the result generated is also validated. If the accuracy is as expected user approve the system

6.1.4 OUTPUT TESTING

After performing the validation testing, the next step is output testing of the proposed system since no system could be useful if it does not produce the required output in the specific format. The output generated or displayed by the system under consideration is tested asking the users about the format required by them. Here, the output is consid-

ered in two ways, one is on the screen and other is printed format. The output format on the screen is found to be correct as the format designed according to the user needs. For the hard copy also, the output comes out as specified by the user. Hence output testing does not result in any connection in the system.

6.2 VALIDATION CHECK

The validation phase reveals the failures and the bugs in the developed system. It will become known about the practical difficulties the system faces when operated in the true environment. Validation is the process of ensuring that user input is clean, correct, and useful. Typical validation tasks are:

- Has the user filled in all required fields?
- Has the user entered a valid email?
- Has the user entered text in a numeric field?

Form validation normally used to occur at the server, after the client had entered all the necessary data and then pressed the submit button. If the data entered by a client was incorrect or was simply missing, the server would have to send all the data back to the client and request that the form be resubmitted with correct information. This was really a lengthy process which used to put a lot of burden on the server. Most often, the purpose of validation is to ensure correct user input. Validation can be defined by many different methods, and deployed in many different ways. Server side validation is performed by a web server, after input has been sent to the server. Client side validation is performed by a web browser, before input is sent to a web server.

Chapter 7

SYSTEM MAINTENANCE

System maintenance is a going activity, which covers a wide variety of activities including, removing program and design errors, updating documentation and test data and updating user support system maintenance is a catchall term used to describe various forms of computer or server maintenance required to keep a computer system running properly, it can describe network maintenance which could mean that servers are being physical repaired, replaced or mode. For the purpose of convenience, maintenance may be categorized into three classes they are:

CORRECTIVE MAINTENANCE

This type of maintenance implies removing errors in a program, which might have kept in the system due to faulty design or wrong assumption.

Corrective mobile application maintenance is used throughout the life of your software or application. It is used when your product malfunctions and affects your users' experience. Thus, this type of maintenance is used in response to a problem encountered after the delivery of your software or application.

Corrective maintenance includes:

- The analysis of reported anomalies

- Application of necessary changes to fix the error
- Extensive testing to verify that the problems are successfully resolved.

ADAPTIVE MAINTENANCE

In adaptive maintenance program functions are changed to enable the information system to satisfy the information needs of the user.

Adaptive mobile application maintenance can be seen as identical to preventive. However, the difference between the two is that adaptive maintenance requires modifications to the system and its components. These modifications are made in order to comply with a major change in the application or software environment.

By adopting this type of maintenance, you are being proactive. It is indeed a good way to avoid future complications (and numerous calls to the technical department!). The objective is that your application or software remains agile and usable, even in an environment that is bound to change.

PERFECTIVE MAINTENANCE

In perfective maintenance means adding new programs or modifying the existing programs to enhance the performance of the information system. This type of maintenance undertaken to respond to user addition needs which may be due to the changes within or outside of the organization.

It involves making enhancements in software functionality by implementing new or changed user requirements. It is often, but not always, initiated by customer feedback. It accounts for 50% of all the maintenance activities.

Chapter 8

CONCLUSION AND FUTURE ENHANCEMENTS

8.1 CONCLUSION

The project was successfully completed with in the time span allotted. This project can overcome all the problems of admin duties and the data will be safe and secured. The drawbacks of the existing system as listed before are fully evaluated. All the existing inconsistencies are fully solved as this system is implemented. This reduced the burden of the administration of the system. All the modules are tested separately and put together to form the main system. Finally, the system is tested with real data and it worked successfully. Thus, the system has full the entire objective denied. The system has been developed in an interactive manner; the reports generated by the system are clear. The system is flexible, user friendly and has its own full data security and all data recovery facility. This application will be very useful for the people as admin updates all the information and registered kudumbasree can view and apply for their different services.

8.2 FUTURE ENHANCEMENTS

In existing system, there is no application for the people of this panchayath and all the details are saved in paper and pen, so its not that much safe. So this application will be very useful for the people as admin updates the information and users can view the details on correct time using their own smartphones.

The system is very flexible for further up gradation with additional requirement of the self working, the jsp and hides server makes this Modifications very easily. It is also possible to involve more functions into the system. This eligibility makes this system widening its scope. All day to day work can be done with much more ease and decency. The database and the information can be updated to the latest coming versions. There are also possibilities for enhancing and further developing the project with the latest information and needs of the portal. The main problem is the lack of technology, but by developing this application the problem will be solved

Chapter 9

CODING

9.1 SOURCE CODE

Register.java

```
package com.example.kudumbasree.kadmin;  
import android.content.Intent;  
import android.os.Bundle;  
import android.text.TextUtils;  
import android.util.Log;  
import android.util.Patterns;  
import android.view.View;  
import android.widget.Button;  
import android.widget.EditText;  
import android.widget.Toast;  
import androidx.appcompat.app.AppCompatActivity;  
import com.example.kudumbasree.R;  
import com.example.kudumbasree.login.LoginActivity;  
import com.example.kudumbasree.network.ApiClient;
```

```
import com.example.kudumbasree.network.ApiInterface;
import okhttp3.ResponseBody;
import retrofit2.Call;
import retrofit2.Callback;
import retrofit2.Response;
public class Register extends AppCompatActivity {
    EditText
    ed_name,ed_regno,ed_email,ed_village,ed_panchayath,ed_unit,
    ed_district,ed_president,ed_secretary;
    Button register;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_register_kudumbasree);
        ed_name=findViewById(R.id.ed_name);
        ed_regno=findViewById(R.id.ed_regno);
        ed_village=findViewById(R.id.ed_village);
        ed_panchayath=findViewById(R.id.ed_panchayath);
        ed_unit=findViewById(R.id.ed_unit);
        ed_district=findViewById(R.id.ed_district);
        ed_email=findViewById(R.id.ed_email);
        ed_president=findViewById(R.id.ed_president);
        ed_secretary=findViewById(R.id.ed_secretary);
        register=findViewById(R.id.btn_register);
        register.setOnClickListener(new View.OnClickListener() {
```

@Override

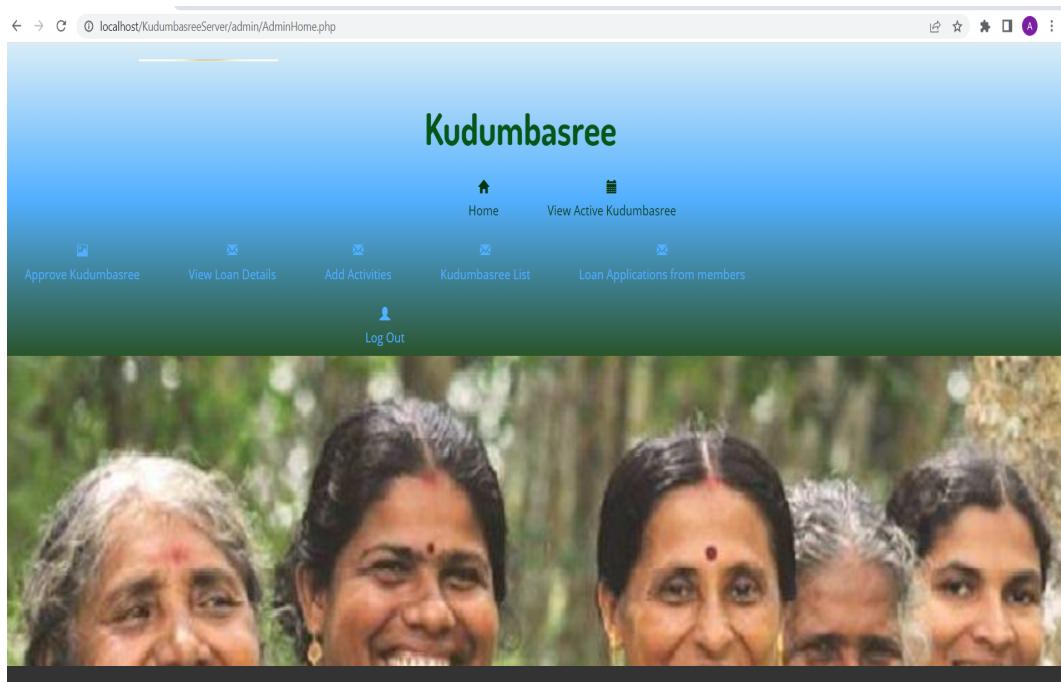
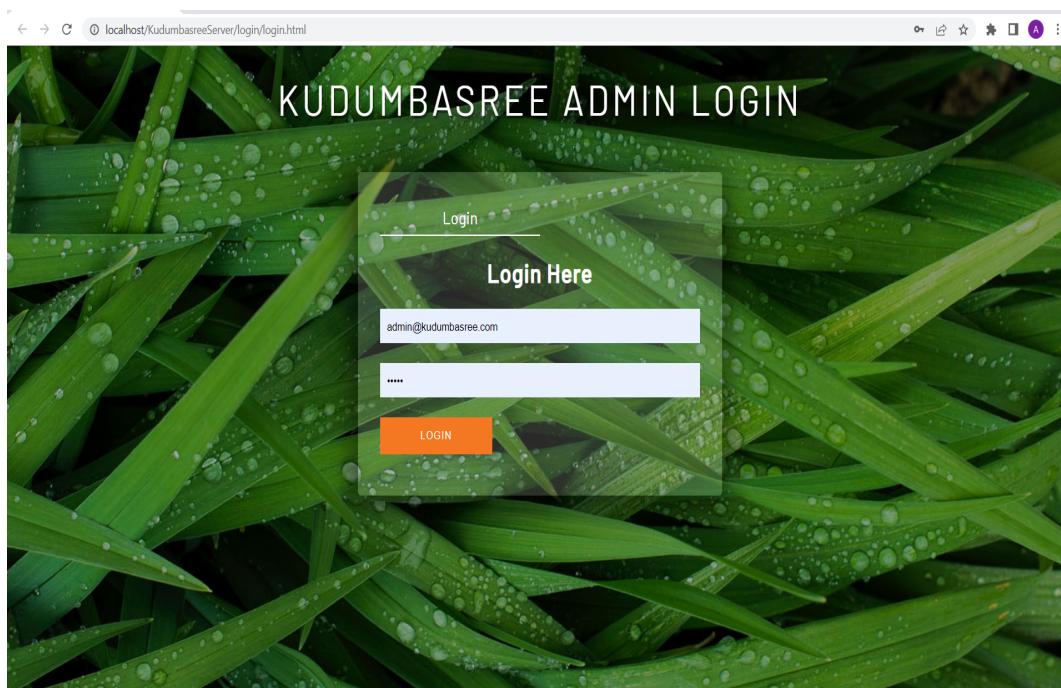
```
public void onClick(View view) {  
    String emailPattern = "[a-zA-Z0-9._-]+@[a-z]+  
    .+[a-z]+";  
    if (isEmpty(ed_name)) {  
        ed_name.setError("Name is required!");  
    }  
    else if(isEmpty(ed_email)) {  
        ed_email.setError("+Email-ID is required!");  
    }  
    else if(isEmpty(ed_regno)) {  
        ed_regno.setError("Reg.No. is required!");  
    }  
    else if(isEmpty(ed_unit)) {  
        ed_unit.setError("Unit is required!");  
    }  
    else if(isEmpty(ed_panchayath)){  
        ed_panchayath.setError("panchayath is required!");  
    }  
    else if(isEmpty(ed_village)) {  
        ed_village.setError("village is required!");  
    }  
    else if(isEmpty(ed_district)) {  
        ed_district.setError("District is required!");  
    }  
    else  
        if(!ed_email.getText().toString().trim().matches(emailPattern))
```

```
{  
    Log.e("email",ed_email.getText().toString().trim());  
    ed_email.setError("Invalid email-id");  
}  
  
else  
  
register(ed_name.getText().toString(),ed_email.getText().toString(),ed_regno  
.getText().toString(),ed_village.getText().toString(),  
ed_panchayath.getText().toString(),ed_unit.getText().toString(),ed_district.  
getText().toString(),ed_president.getText().toString(),  
ed_secretary.getText().toString()); }  
});  
}  
} boolean isEmpty(EditText text) {  
CharSequence str = text.getText().toString();  
return TextUtils.isEmpty(str);  
}  
  
boolean isEmail(EditText text) {  
CharSequence email = text.getText().toString();  
Log.e("email",email.toString());  
return (!TextUtils.isEmpty(email) &&  
Patterns.EMAIL_ADDRESS.matcher(email).matches());  
}  
void register(String ed_name,String ed_regno,String ed_email,String  
ed_village,String ed_panchayath,String ed_unit,String  
ed_district,String ed_pres,String ed_sec)  
{ ApiInterface retrofitApi =  
ApiClient.getApiClient().create(ApiInterface.class);  
Call<ResponseBody> call =  
retrofitApi.performRegister(ed_name,ed_email,ed_regno,ed_village,e  
d_panchayath,ed_unit,ed_district,ed_pres,ed_sec);
```

```
call.enqueue(new Callback<ResponseBody>() {
    @Override
    public void onResponse(Call<ResponseBody> call,
        Response<ResponseBody> response) {
        if (response.isSuccessful()) {
            Toast.makeText(getApplicationContext(),"Register
success",Toast.LENGTH_LONG).show();
            startActivity(new Intent(getApplicationContext
LoginActivity.class));
        } else
        {
            Toast.makeText(getApplicationContext(),"Register
failed",Toast.LENGTH_LONG).show();
        }
    }
    @Override
    public void onFailure(Call<ResponseBody> call, Throwable t) {
        Log.e("ResponseBody","failedddd"+t.getMessage());
    }
});}
}
```

9.2 SCREENSHOTS

9.2.1 ADMIN PAGE



Kudumbasrees

Home

Kudumbasree List

Kudumbasree name	Register No	Unit	Panchayath	Village	District	Secretary	President	View Members	View Meetings
Maya	sajnams009@gmail.com	rhidhdh	hdhdh	bij	hjif			Members	Meetings
thih	1234	thuruthipuram	vadakkekara	moothakunnam	ernakulam			Members	Meetings
thanima	1234	thuruthipuram	vadakkekara	moothakunnam	ernakulam			Members	Meetings
thanima	1234	thuruthipuram	vadakkekara	moothakunnam	ernakulam			Members	Meetings
anaa	an@gmail.com	4	fghhj	fghh	bnjk			Members	Meetings
MAYA	maya@gmail.com	7	puthenvelikkara	puthenvelikkara	eranakulam			Members	Meetings

Kdumbasree

Home

Members

Member name	Aadhar	Account Number	Loan Details
smitha	123443211234	12344	Show loan details
jeeva	111122227777	563738383	Show loan details
ginu	3636	gdjdjd	Show loan details
anagha	1234567890	245567888	Show loan details
Anagha	123446678890	23455677	Show loan details

localhost/KudumbasreeServer/admin/AddActivities.php

Administration

Home

Add Activities

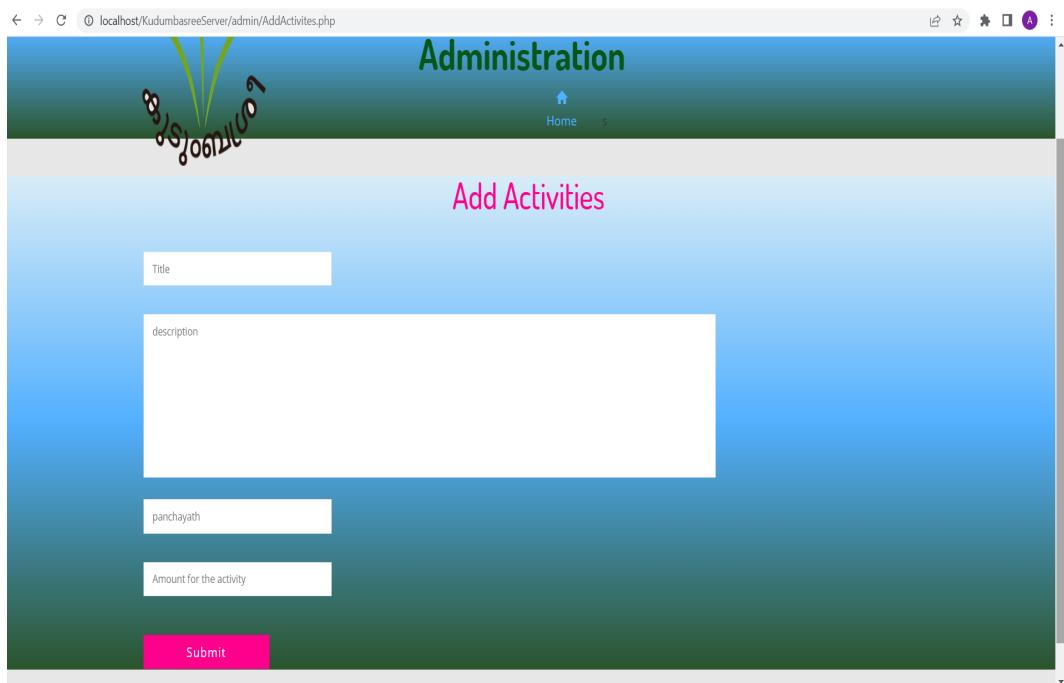
Title

description

panchayath

Amount for the activity

Submit



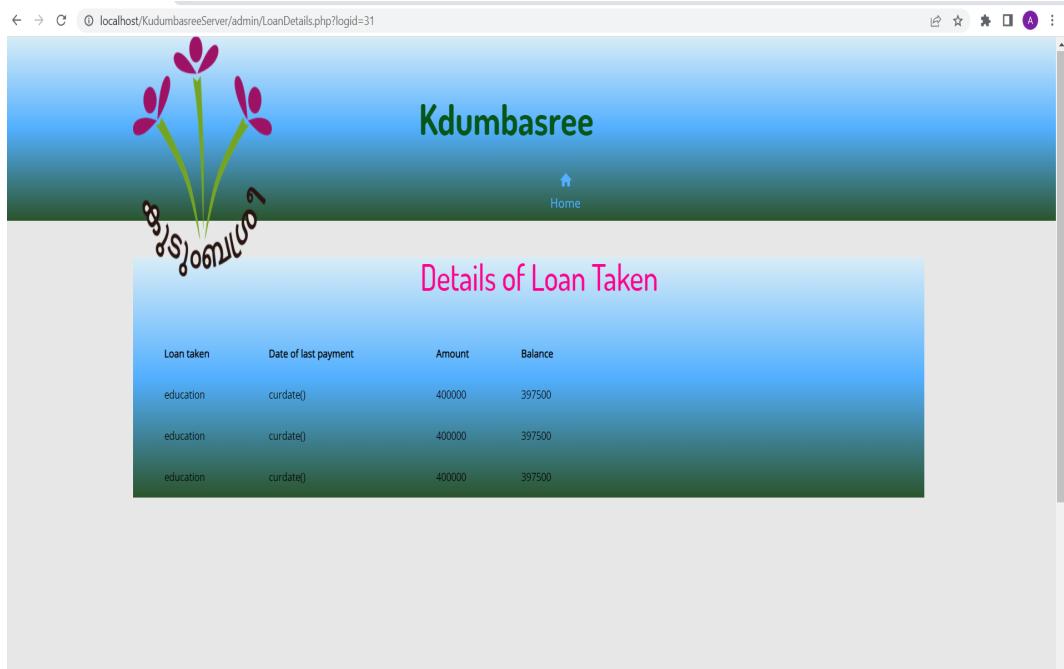
localhost/KudumbasreeServer/admin/LoanDetails.php?logid=31

Kdumbasree

Home

Details of Loan Taken

Loan taken	Date of last payment	Amount	Balance
education	curdate()	400000	397500
education	curdate()	400000	397500
education	curdate()	400000	397500



Kdumbasree

Home

Loan Applications

Loan	Member name	Apply Date	Kudumbasree of member	Action
education	smitha	2022-06-18	education	Approve
farming loan	anagha	2022-06-18	farming loan	Approve
farming loan	smitha	2022-07-04	farming loan	Approve
house loan	reshma	2022-07-06	house loan	Approve
Fisheries	reshma	2022-07-06	Fisheries	Approve

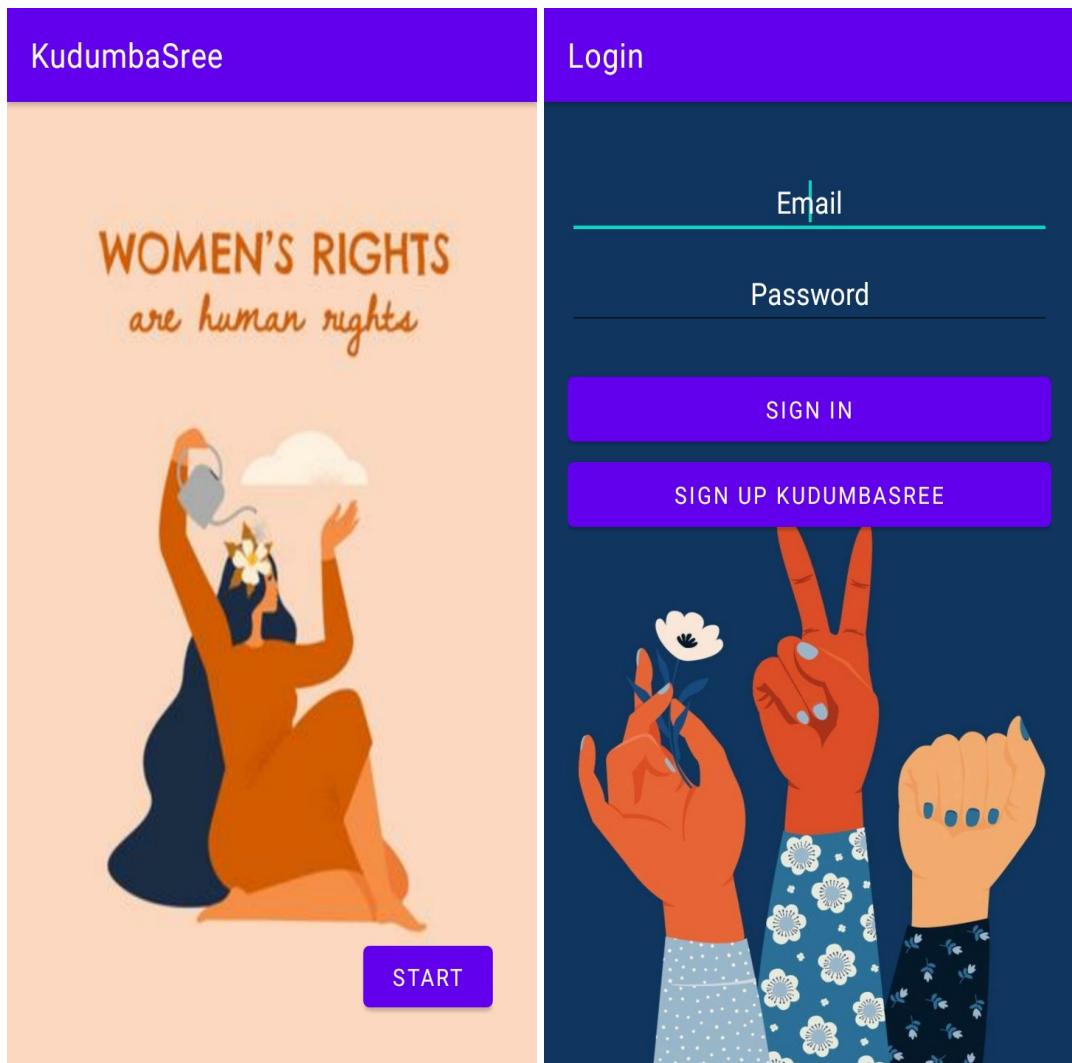
Kdumbasree

Home

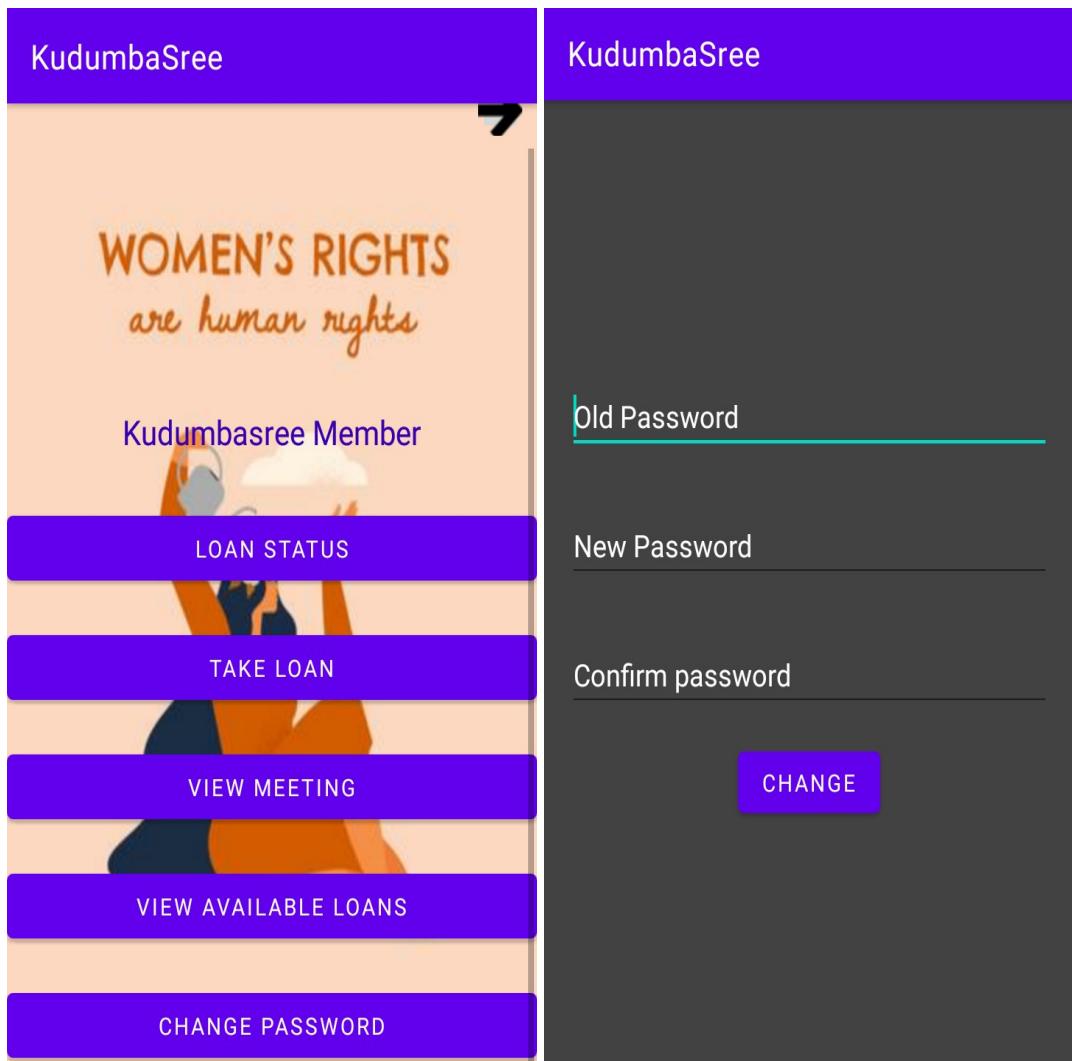
Loans

Name	Interest	Amount per month	Period of return	Amount
education	5%	2500	4years	400000
farming	3%	2000	3years	300000
farming loan	5	5000	4 years	50000
vehicle	30%	2000	3 months	9000
house	10	1000	6	300000
Fisheries	5%	1000	8months	20000
house loan	50%	1000	9months	30000

9.2.2 HOME PAGE



9.2.3 MEMBER PAGE



KudumbaSree	KudumbaSree
Loans Available from panchayaths	Status of Loan Application
education  400000 4years	Fisheries  20000 8months APPR OVED
farming  300000 3years	house loan  30000 9months NOT APPR
farming loan  50000 4 years	Fisheries  20000 8months NOT APPR
vehicle  9000 3 months	
house  300000 6	
Fisheries	

9.2.4 KUDUMBASREE ADMIN PAGE

The screenshot displays the Kudumbasree Admin Page interface. On the left, there is a sidebar with the following buttons:

- ADD MEMBER
- ADD MEETING
- ADD AVAILABLE LOANS
- VIEW AVAILABLE LOANS
- ACTIVITIES
- CHANGE PASSWORD

The main area features a large graphic of stylized human figures in various colors (red, yellow, blue, pink) standing together. To the right of the graphic, the title "Kudumbasree Admin" is displayed above a "Add Meeting" form. The form fields are as follows:

- Title:
- Description:
- Venue:
- Date of meeting:
- Time:
- ADD MEETING** button

KudumbaSree	KudumbaSree
Add Loans from panchayath	
Add Members	Name of Loan
Name of member	Loan Amount
Aadhar no.	Amount per month
Account No.	Interest%
Email ID.	Period of Loan
ADD MEMBER	ADD LOAN

KudumbaSree

KudumbaSree

Member Details

smitha

 123443211234

12344

education

400000

Permonth: 2500

ADD PAYMENT

Loans Available from panchayaths

education

 400000

4years

MEMBERS

farming

 300000

3years

MEMBERS

farming loan

 50000

4 years

MEMBERS

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