

DISHA
PROJECT REPORT

Submitted to the University of Kerala in partial fulfillment of the requirements for the award of the degree of Bachelor of Computer Application (BCA)

By

AKHIL RAJ [REDACTED]

SABIN SANTHOSH [REDACTED]

VISHNU P M [REDACTED]

Under the Guidance of

Prof. Salini S Nair

Asst. Professor in Computer Applications



DEPARTMENT OF COMPUTER APPLICATION
SREE NARAYANA COLLEGE OF TECHNOLOGY
VADAKKEVILA, KOLLAM

University of Kerala

Thiruvananthapuram

2022

SREE NARAYANA COLLEGE OF TECHNOLOGY

VADAKKEVILA, KOLLAM-10

University of Kerala

CERTIFICATE

Certified that this report entitled “**DISHA**” is a bonafide record of project work done by **AKHIL RAJ, SABIN SANTHOSH** and **VISHNU PM** during the year 2022 under our supervision and guidance, towards partial fulfillment of requirements for the award of the Degree of Bachelor of Computer Applications of the University of Kerala.

Examiners

Internal Guide

Head of the Department

Prof. Salini S Nair

Prof. Salini S Nair

1.

2.

DECLARATION

We hereby declare that the project report entitled “**DISHA**” is a bonafide record of the project work done by us, under the guidance of **Prof.Salini S Nair, Asst.Professor, Department of Computer Applications, Sree Narayana College of Technology**, in the partial fulfillment of the requirement for the award of degree in **BCA(Bachelor of Computer Application)** under the University of Kerala.

We also declare that the project has not been submitted to any other university or Institution for the award of degree, diploma, associate ship, fellowship or other similar title or recognition.

Signature

AKHIL RAJ [REDACTED]

SABIN SANTHOSH [REDACTED]

VISHNU P M [REDACTED]

Countersigned

Head of Department ofComputer Applications,

Sree Narayana College of Technology,

Vadakkevila, Kollam

ACKNOWLEDGEMENT

The satisfaction that accompanies the successful completion of any task would be incomplete without mentioning about the people who made it possible, whose constant guidance and encouragement has crowned the efforts with success. We would like to thank almighty god all blessings he has bestowed upon us to complete our work.

We take immense pleasure in expressing our heartfelt indepthness to our **Principal, Dr.Anitha Sankar** C us to conduct and successfully complete this project. With heartfelt thanks, I would like to take up this opportunity to wish my internal guide **Prof.Salini S Nair, Asst. Professor, Department of Computer Applications, Sree Narayana College of Technology** for the endless support, encouragement and suggestions in various stages of the development of the project. We also wish to extend our sincere and hearty respect and thanks to **Prof. Salini S Nair, Head of the Department of Computer Applications, Sree Narayana College of Technology.**

We also wish to extend our sincere and hearty respects and thanks to **Prof.Renjini J, Prof.Sruthi Das R, Prof.Aswathy V R, Prof. Deepa Rajendran and Prof. Kannan S** who helped us to make the project a success.

Last, but not least we would like to thank our parents and friends for the support and help they provided to complete our project.

WITH GRATITUDE,

AKHIL RAJ

SABIN SANTHOSH

VISHNU P M

ABSTRACT

The growing role of Information and Communication Technology (ICT) tools has strengthened the human intellectual capacity and the formation of modern lifestyles. The objective is to facilitate and improve Panchayat functioning on day-to-day basis, through two way flow of information and content. The site's goal is to provide information to everyone as quickly as possible, in a reliable and authentic manner. Disha aims to bring out the local voices by empowering the local communities to actively participate in all services provided by panchayat. The web-platform would act as a repository of local content for all peoples in all parts of the panchayat to get services and other relevant information from that panchayat. Disha aims to provide all services provided by the panchayat in web platforms in easy manner to help the needy peoples. The web portal includes six levels of users: Admin, Head of panchayat(secretary), public, village office, Health, unregistered users. Disha has the objective to facilitate and improve Panchayat functioning on day-today basis, through two way flow of information and content. The goal is to realise various development objectives at grassroots level. Here Village Office module deals with generation of e-Certificates like Income Certificate, Community Certificate etc. All the requests can be sent online. Health Module connects the local PHC(Public Health Centre) for vaccination, child care, doctor status checking etc. A machine learning model can collect the health parameters of the local people and predict their overall health.

Front End : HTML,PHP, CSS

Back End : My SQL

Machine Learning Tool : Google Colab

ML using Python

TABLE OF CONTENTS

1. INTRODUCTION	1
2. SYSTEM ANALYSIS	3
2.1 Existing System	3
2.2 Proposed System	4
2.3 Feasibility Analysis	4
2.3.1 Technical Feasibility	5
2.3.2 Operational Feasibility	5
2.3.3 Economic Feasibility	5
2.4 System Specification	6
2.4.1 Software Specification	6
2.4.2 Hardware Specification	6
2.5 Software Requirements	6
2.5.1 Overview of PHP	7
2.5.2 HTML	7
2.6 Dataflow Diagram	8
2.6.1 Dataflow Notations	8
2.7 Structure Chart	15
2.8 Menu Tree	17
2.9 System Flow Chart	19
3. SYSTEM DESIGN	25

3.1	Module	Description
25		
3.2	Input	Design
26		
3.2.1 Input Objectives		27
3.3 Output Design		27
3.3.1 Output Design		27
3.4 Database Design		28
3.4.1 Normalization		28
3.4.1.1 First Normal Form		29
3.4.1.2 Second Normal Form		29
3.4.1.3 Third Normal Form		29
3.5 Table Design		30
4. SYSTEM CODING		34
4.1 Program List		34
4.2 Source Code		34
5. SYSTEM TESTING		51
5.1 Unit Testing		51
5.2 Integration Testing		52
5.3 Acceptance Testing		52
6. SYSTEM IMPLEMENTATION		53
6.1 Implementation Planning		54
6.2 Training		54
7. SYSTEM MAINTENANCE		55
7.1 Types of System Maintenance		55
7.1.1 Corrective Maintenance		55
7.1.2 Adaptive Maintenance		56
7.1.3 Perfective Maintenance		56
8. CONCLUSION		57
9. FUTURE ENHANCEMENT		58
10. APPENDIX A: GANTT CHART		59

11. APPENDIX B: MEETING MINUTES	60
12. APPENDIX C: SCREEN LAYOUTS AND REPORTS	62
13. APPENDIX D: TEST CASES	65
14. BIBLIOGRAPHY	66

CHAPTER-1

INTRODUCTION

Academic institutions are moving toward IT in a faster manner. There is still some vacuum in the incorporation of advanced IT skills like Artificial Intelligence(AI), Machine Learning and Deep Learning. Through this project a humble initiative is forwarded to push these AI technologies into the domain of Academics.

Over the past two decades, India's ability to create, select, adapt, use and profit from knowledge has become increasingly important to its sustainable economic growth and improvement of living standard.

The growing role of Information and Communication Technology (ICT) tools has strengthened the human intellectual capacity and the formation of modern lifestyles. The objective is to facilitate and improve Panchayat functioning on day-to-day basis, through two way flow of information and content. The site's goal is to provide information to everyone as quickly as possible, in a reliable and authentic manner. Disha aims to bring out the local voices by empowering the local communities to actively participate in all services provided by panchayat. The web-platform would act as a repository of local content for all peoples in all parts of the panchayat to get services and other relevant information from that panchayat. Disha aims to provide all services provided by the panchayat in web platforms in easy manner to help the needy peoples. The web portal includes six levels of users: Admin, Head of panchayat(secretary), public, village office, Health, unregistered users. Disha has the objective to facilitate and improve Panchayat functioning on day-today basis, through two way flow of information and content. The goal is to realise various development objectives at grassroots level. Here Village Office module deals with generation of e-Certificates like

Income Certificate, Community Certificate etc. All the requests can be sent online. Health Module connects the local PHC(Public Health Centre) for vaccination, child care, doctor status checking etc. A machine learning model can collect the health parameters of the local people and predict their overall health.

CHAPTER-2

SYSTEM ANALYSIS

System analysis is the process of gathering and interpreting facts, diagnosing problems and using the information to recommend improvements on the system. System analysis is a problem-solving activity that requires intensive communication between the system users and system developers.

System analysis or study is an important phase of any system development process. The system is viewed as a whole, the inputs are identified and the system is subjected to close study to identify the problem areas. The solutions are given as a proposal. The proposal is reviewed on user request and suitable changes are made. This loop ends as soon as the user is satisfied with the proposal.

2.1 EXISTING SYSTEM

At present even though we are flooded with lots of administrative systems, they are not customizable to the need of a local body. The different modules available in these systems may not be mandatory for all systems.

In majority of the administrative systems staff module is not included. They are developed in proprietary platforms. This possess great licensing challenges. It puts extra burden upon the shoulder of the local body through heavy license fee.

Limitations

- The existing system which we using in our panchayat is a traditional manual system.
- Data Security- This can be private information concerning individuals or organizations. It can be very difficult to keep this data safe in lockers.
- The services provided by the panchayat is not be aware of all peoples living in that local body.
- Officials of Panchayats are not in proper cordial relationship with the people of Panchayats.

2.2 PROPOSED SYSTEM

Proposed system bridges all issues related with the existing system. It provides customized modules appropriate for an academic institution. The software is developed in open source technologies. As the development is done in PHP, there are no hidden costs in the process. In the backend the system use MySQL database server.

Advantages

- To empower citizens of every panchayat with bottom up and top down information and content.
- To improve development, governance and public service delivery at panchayat level through information on policy programmes and implementation.
- To facilitate growth of panchayat economy through promotion of panchayat tourism and-commerce of local produce.
- To put every panchayat on the global digital map.
- To generate an ICT environment in every panchayat.
- To give fillip to the Right to Information campaign.

Proposed system mainly focuses on the below given modules:

1. Admin- Approve and reject users, update profile, view applications and view feedbacks from the visitors of the website.
2. Staff-Add new scheme details, update scheme, delete scheme, view users of the website, add new notification details and upload images.
3. Users- View new scheme, apply scheme, view new information, view images and add feedback about the website.
4. Village office- Receiving applications and providing certificates
5. Health- Adding information from hospital and predictions for doctors availability
6. Unregistered Users-View new schemes and view images without login to the website.

2.3 FEASIBILITY ANALYSIS

A feasibility study is a preliminary study undertaken to determine and document viability of **DISHA**. It is both necessary and prudent to evaluate the feasibility of a project at the earliest possible time. An estimate is made of whether the identified user needs may be satisfied using current software and hardware technologies. The study will decide if the **DISHA** will be cost effective from the business point of view and if it can be developed in the given existing budgetary constraints. The feasibility study should be relatively cheap and quick. The result should inform the decision of whether to go ahead with a more detailed analysis.

- TechnicalFeasibility
- OperationalFeasibility
- EconomicFeasibility

2.3.1TechnicalFeasibility

The technical feasibility assessment is focused on gaining and understanding of the present technical resources of the organization and their applicability to the expected needs of the proposed system. It is an evaluation of the hardware and software and how it meets the need of the proposed system.

In this system, data can be easily stored and managed using database management system software. This project is developed using PHP with MySQL as database. PHP is powerful server scripting language, and is the front-end of this project with MySQL as backend. It is a powerful database server which provides data integrity and consistency. The reports and results for various queries can be generated easily. It also uses bootstrap for the interface design. Therefore, the system is technically feasible.

2.3.2Operational Feasibility

The operational feasibility assessment focuses on the degree to which the proposed development project fits in the existing business environment and objectives.

The website provides a user-friendly environment, so a person with little computer background could easily operate the system. The system is capable of meeting all future changes without much modification.

2.3.3Economic Feasibility

The purpose of economic feasibility assessment is to determine the positive economic benefits to the organization that the proposed system will provide.

When compared with the advantage obtained from implementing the system its cost is affordable. Also, the system is designed to meet the modifications required in the future and this system is made as the part of academic project.

2.4 SYSTEM SPECIFICATION

2.4.1 Software Specification

- Operating system : Windows series.
- Server Side Programming : PHP
- Web Browser : Internet Explorer/Mozilla/Chrome
- Markup Language : HTML
- Database : My SQL

2.4.2 Hardware Specifications

- Processor : Intel Dual Core
- RAM : 1.00GB or Higher
- Hard Disk : 24.00 GB or Higher
- Keyboard : QWERTY Keyboard
- Mouse : Optical Mouse
- Monitor : LCD Monitor

2.5 SOFTWARE REQUIREMENTS

The system should be compatible enough to hold the general traffic. It should not get hang or show some other problems arising out due to large no of concurrent users. The system should be fast enough to meet the users. An uninterrupted transaction must be performed.

- Security

The system must be fully accessible to only authentic user such as doctors. It should require a valid user name and password for the entry which is early approved by the administrator.

- Reliability

The application should be highly reliable and it should generate all information that are required for the alumni as well as admin.

➤ Availability

Any information about system should be quickly available from any computer to the authorized user.

➤ Maintainability

The application should be maintainable in such a manner that if any new requirement occurs then it should be easily implemented in the system.

➤ Portability

The application should be portable on any windows-based system. It should not be machine specific.

2.5.1 Overview of PHP:

PHP (Hypertext Pre-processor) is a server-side scripting language designed for web development but also used as a general-purpose programming language. PHP is a widely used open source general purpose scripting language that is especially suited for web development and can be embedded into HTML. Instead of lots of commands to output HTML, PHP pages contain HTML with embedded code that does something. The PHP code is enclosed in special start and end processing instructions `<? phpand ?>` that allow you to jump into and out of PHP mode. What distinguishes PHP from something like client-side java script is that the code is executed on the server, generating HTML which is then sent to the client. The client would receive the results of running that script, but would not know what the underlying code was. You can even configure your web server to process your entire HTML file with PHP, and then there's really no way that users can tell what you have up yourselves.

The best things in using PHP are that it is extremely simple for a newcomer, but offers many advanced features for a professional programmer. PHP is mainly focused on server-side scripting, so you can do anything any other CGI program can do, such as collect form data, generate dynamic page content, or send and receive cookies.

2.5.2 HTML (Hyper Text Markup Language)

Hyper Text 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 webpage semantically and originally included cues for the appearance of the document.

2.6 DATA FLOW DIAGRAM (DFD)

Data Flow Diagram (DFD) is an important tool used by system analyst. DFD provide an overview of what data a system would process, what transformation of data are done, what files are used and where the results flow. The graphical representation of the system makes it a good communication tool between the user and the analyst, Analysis model help us to understand the relationship between different components in the design. Analysis model shows the user clearly how a system will function. This is the first technical representation of the system.

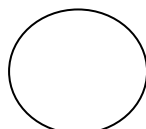
The analysis modeling must achieve three primary objectives.

- To establish a basis for creation of software design.
- To describe what the user requires.
- To define set of requirements that can be validated once the software is built.

A data flow diagram is a graphical technique that depicts information flow and transforms that are applied as data move from input to output. The DFD is used to represent increasing information flow and functional details. A level 0 DFD also called fundamental system model represents the entire software elements as single bubble with input and output indicated by incoming and outgoing arrow respectively.

2.6.1 Data Flow Notations

1. **Process symbol:** A function is represented using a circle. This symbol is called a process or a bubble.



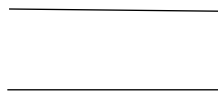
2. **External Entity Symbol:** The external entity is represented by a rectangle. The external entities are essentially those physical entities external to the software system which interact with the systems



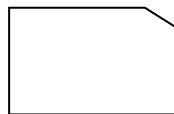
3. **Data Flow Symbol:** A directed arc or an arrow is used as a data flow symbol.



4. **Data Store Symbol:** A data store represents a logical file. It is represented using parallel lines.



5. **Output Symbol:** The output symbol is used when a hard copy is produced and the user of the copies cannot be clearly specified or there are several users of the output.



A few guidelines to aid the derivation of a DFD:

- The level 0 DFD should depict the software/system as a single bubble.
- Primary input and output should be noted.
- Refinement should begin by isolating candidate processes, data objects and the stores to be represented in the next level.
- All arrows and bubbles should be labelled with a meaningful name.
- Information flow continuity must be maintained from level to level and.
- One bubble at a time should be refined.

The level 0 DFD is expanded to level 1 DFD. The process represented in the level 1 DFD can be further refined to level 2 DFD. Information flow continuity is maintained between levels. The

refinement continues until each bubble performs a simple function. That is, until the process represented by the bubble performs a function that would be easily implemented as a program.

The DFD serves two purposes:

To provide an indication of how data is transformed as they move through the system, and to depict the functions (and sub functions) that transforms the data flow.DFD provide additional information that is used during the analysis of the information domain and serves as a basis for the modelling of functions.

CONTEXT LEVEL DFD (Level 0)

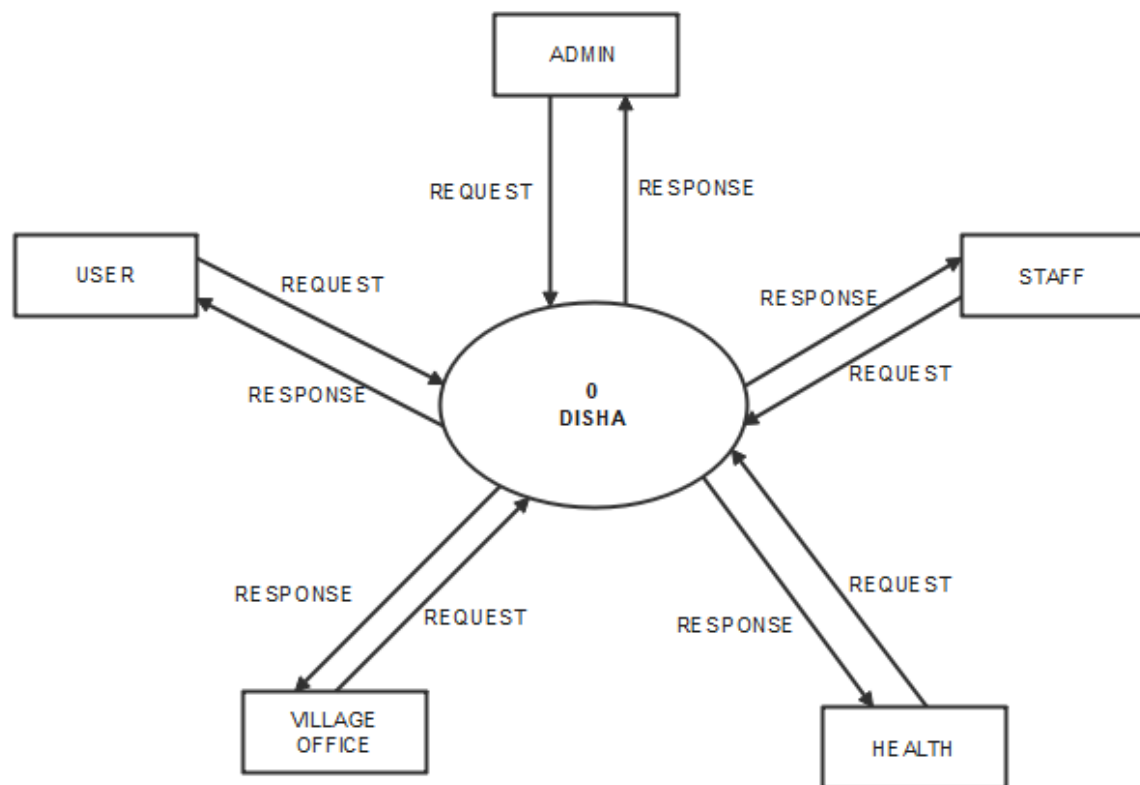


Figure2.6.1.1Context Flow Diagram

LEVEL 1 DFD - Admin

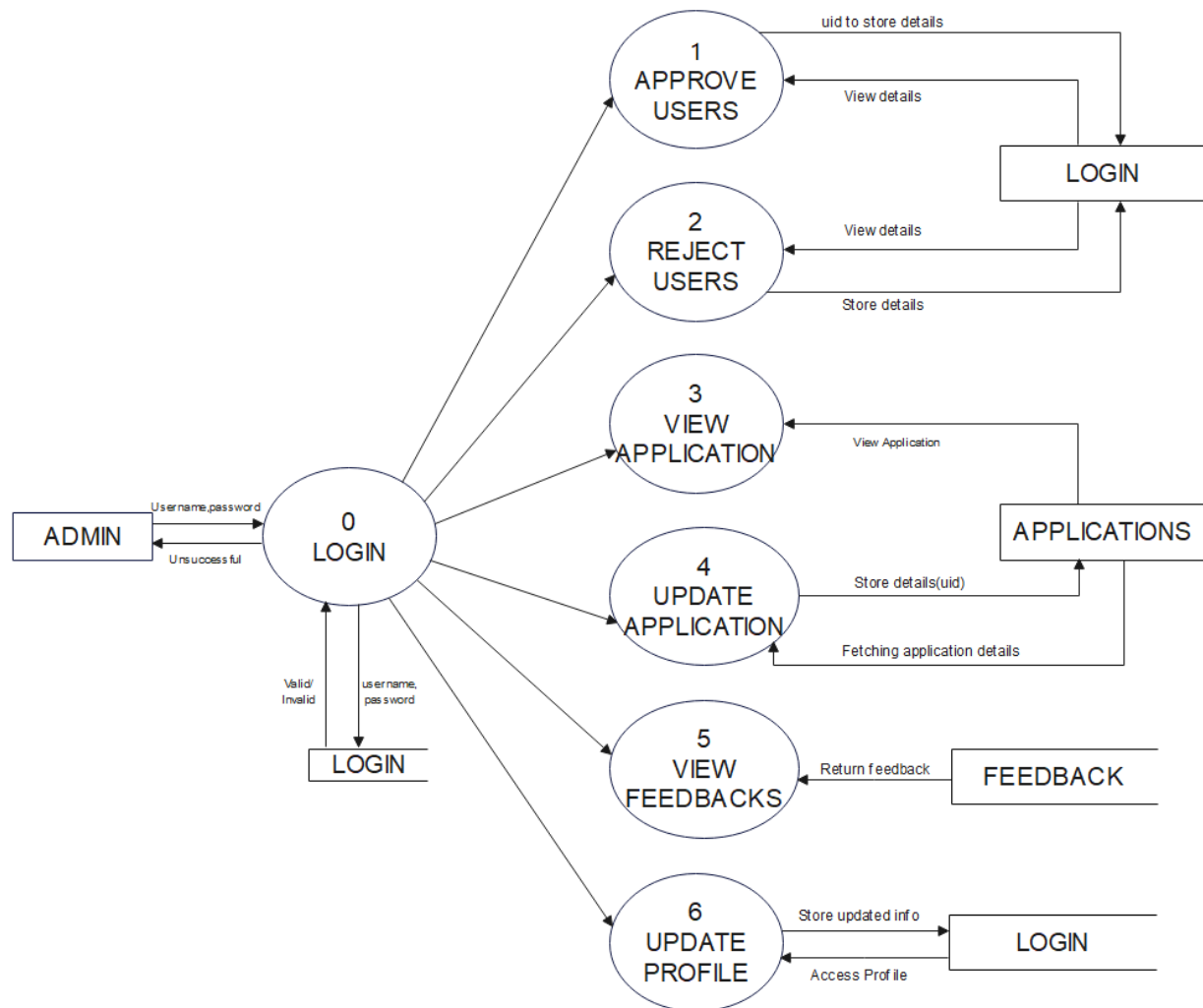


Figure 2.6.1.2 Data Flow Diagram for Administrator

LEVEL 1 DFD - STAFF

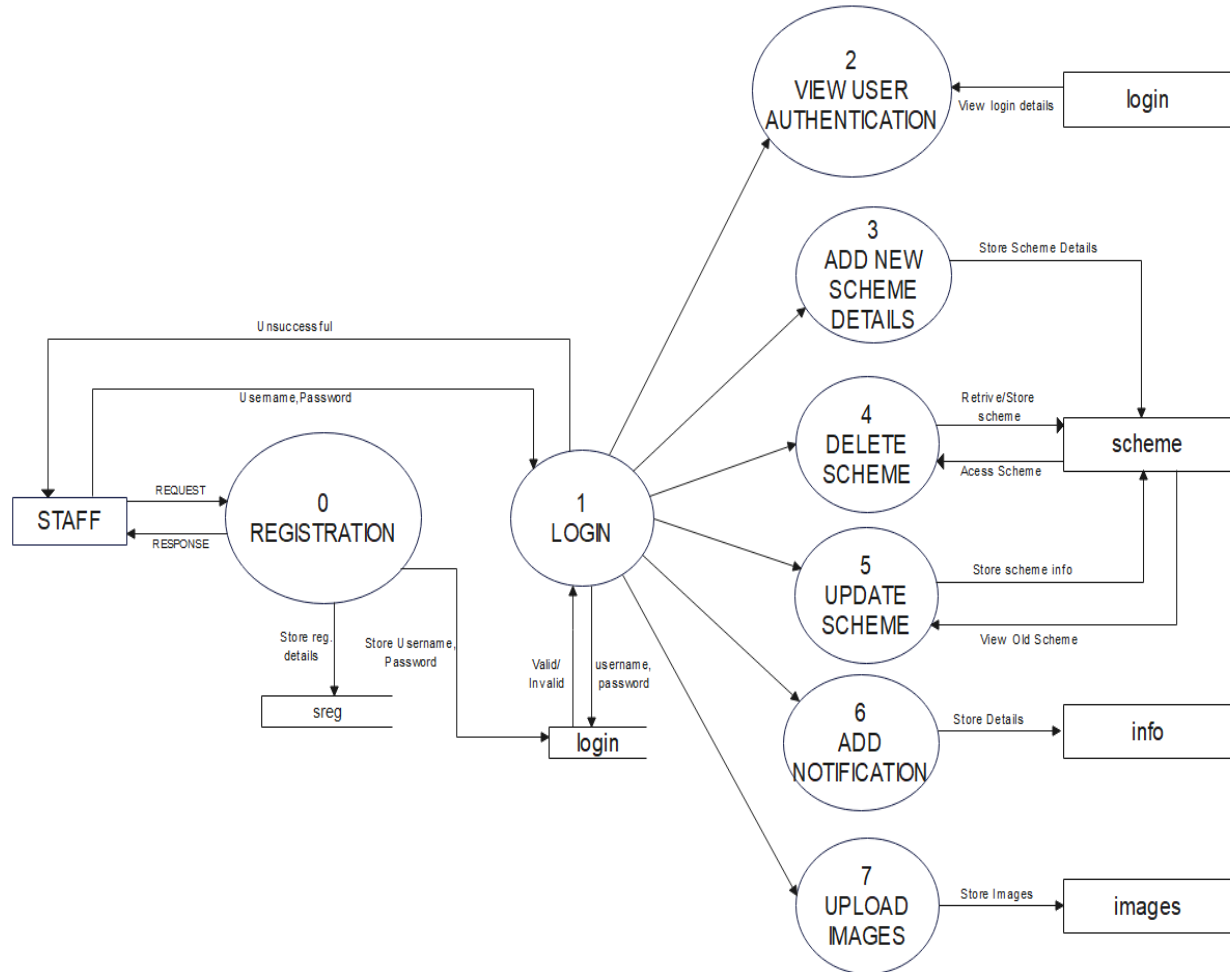


Figure2.6.1.3Data Flow Diagram for Staff

LEVEL 1 DFD-USER

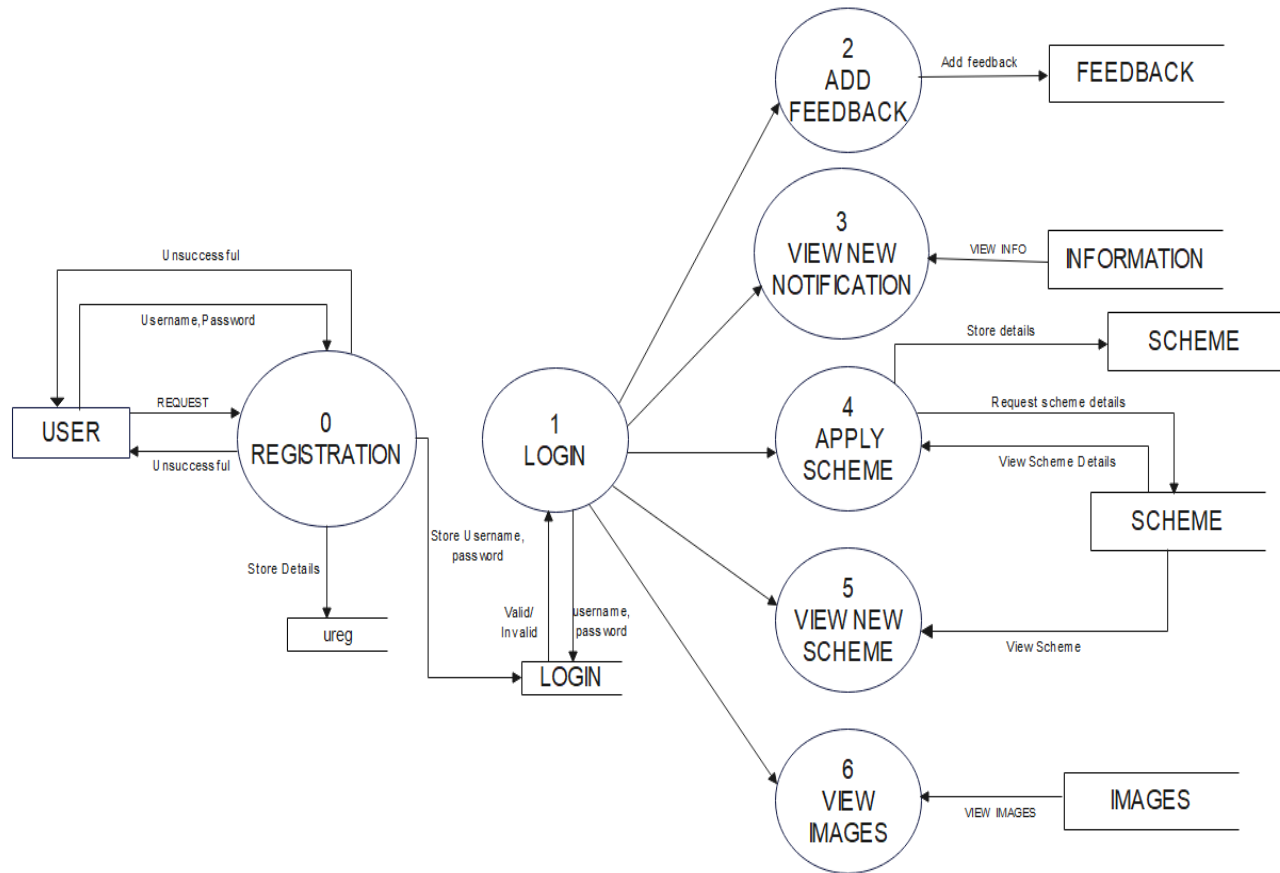


Figure2.6.1.4 Data Flow Diagram for User

LEVEL 1 DFD –VILLAGE OFFICE

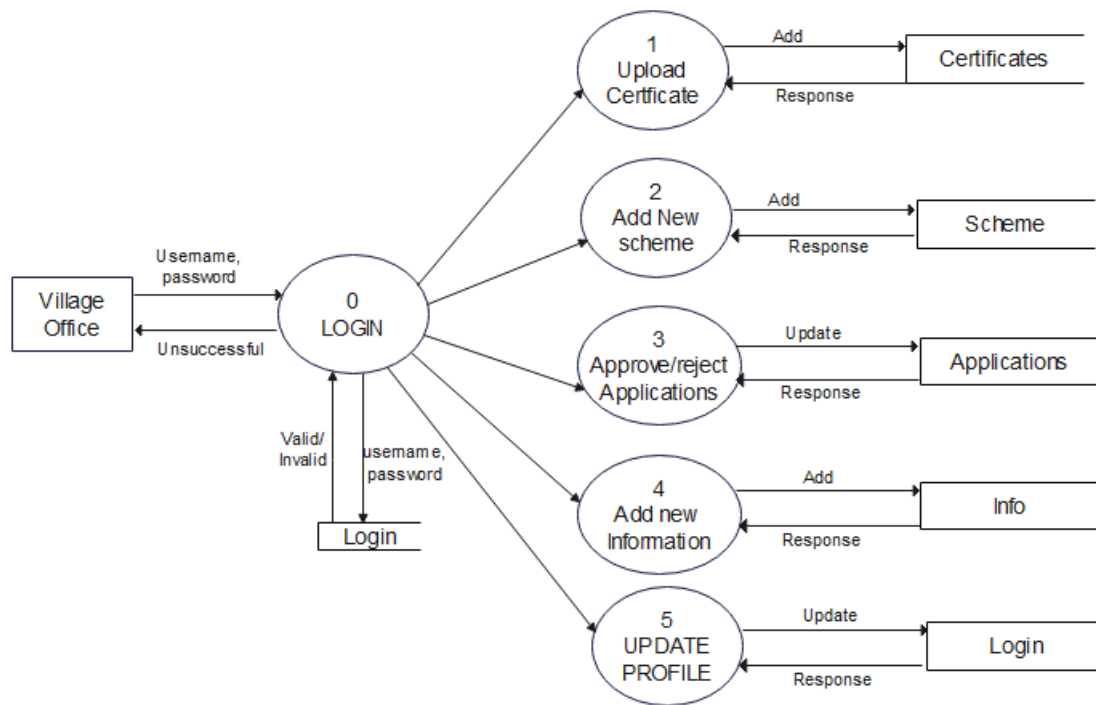


Figure2.6.1.5Data Flow Diagram for Village Office

LEVEL 1 DFD –HEALTH

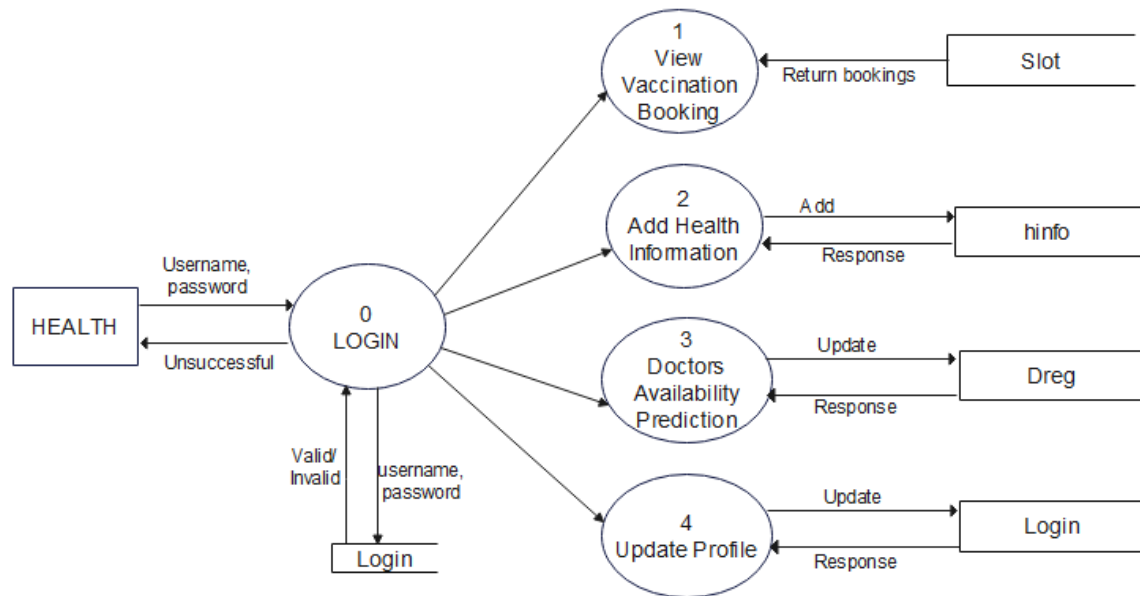


Figure2.6.1.5Data Flow Diagram for Health

2.7 STRUCTURE CHART

Structure chart represents hierarchical structure of modules. It breaks down the entire system into lowest functional modules, describe functions and sub-functions of each module of a system to a greater detail. It includes analysis of input-to-output transformations and analysis of transaction.

Structure charts are developed prior to the writing of program code. They identify the data passes existing between individual modules that interact with one another.

The basic building blocks of structure chart are:

- A rectangle box represents a module (level). It is notated with the same name of the module.
- An arrow connecting two modules implies that during program execution, control is passed from one module to another in the direction of the connecting arrow.
- Data flow arrows are small arrows appearing along the side module invocation arrows. It is associated with the corresponding data same.

A structure chart (SC) in software engineering and organizational theory is a chart which shows the breakdown of a system to its lowest manageable levels. They are used in structured programming to arrange program modules into a tree. Each module is represented by a box, which contains the module's name. The tree structure visualizes the relationships between modules. A structure chart is also used to diagram associated elements that comprise a run stream or thread. Programmers use a structure chart to build a program in a manner similar to how an architect uses a blueprint to build a house. In the design stage, the chart is drawn and used as a way for the client and the various software designers to communicate. During the actual building of the program (implementation), the chart is continually referred to as "the master-plan".

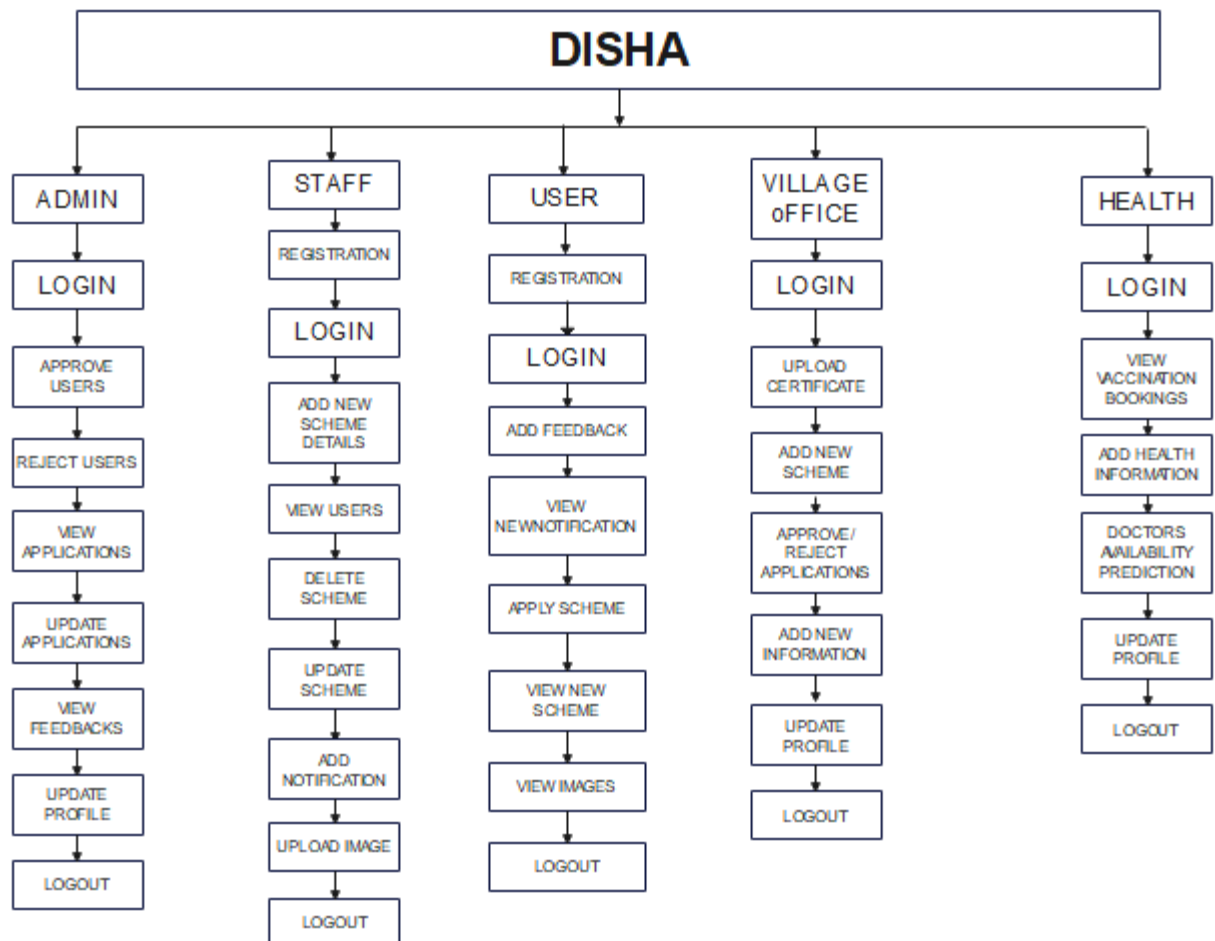


Figure2.7.1: Structure Chart

2.8 MENU TREE

Menu tree is also helpful for representing the simplified version of the system. Which is in the form of a tree structure. Here firstly the entire system taken as the main part, and then each module coming in that system can be represented as the branches and their functions of each module can be represented as same as leaf in the tree. So, menu tree is the hierarchical representation of entire system, so it is very helpful for identifying the system easily.

Symbols used in Menu Tree:



A Rectangle represents Menus

Rectangle

A Line represents the Connection

Line

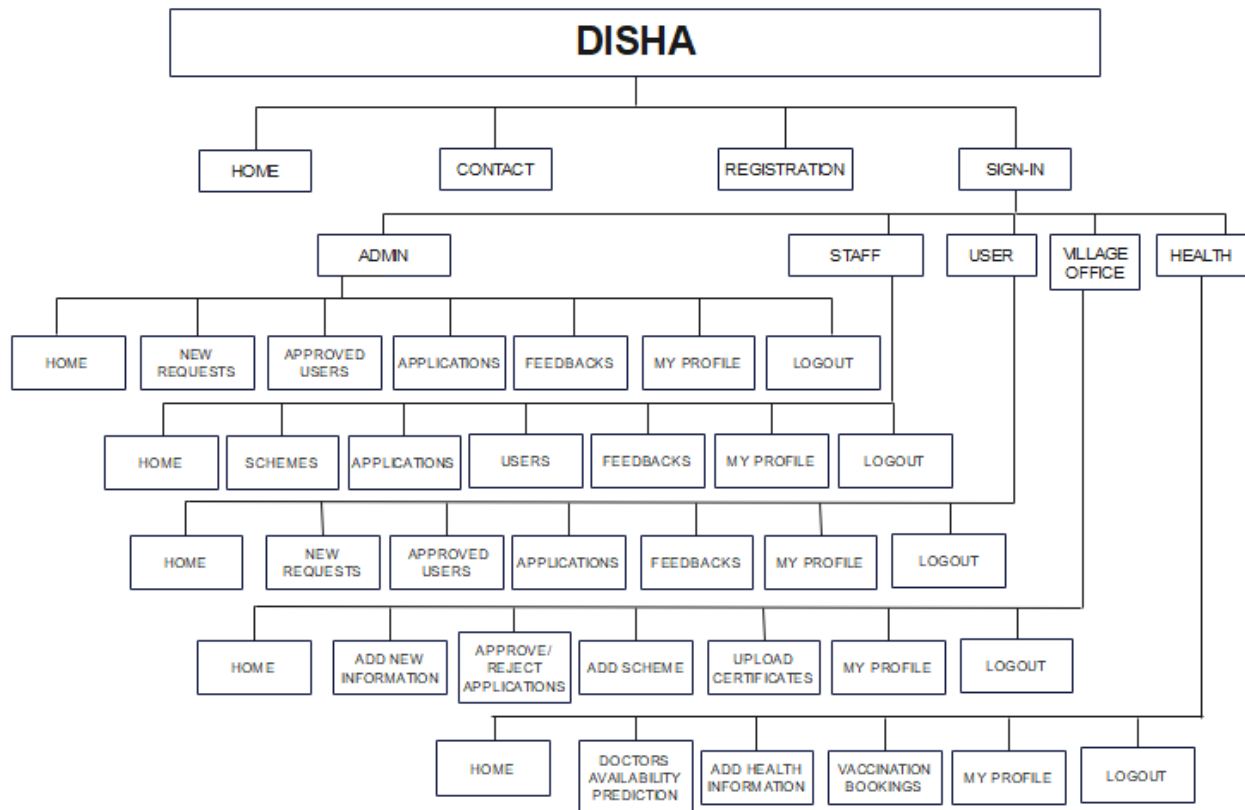


Figure2.8.1:Menu Tree

2.9 SYSTEM FLOW CHART

A flowchart is a type of diagram that represents a workflow or process. A flowchart can also be defined as a diagrammatic representation of an algorithm, a step-by-step approach to solving a task.

The flowchart shows the steps as boxes of various kinds, and their order by connecting the boxes with arrows. This diagrammatic representation illustrates a solution model to a given problem. Flowcharts are used in analyzing, designing, documenting or managing a process or program in various fields.

Flowcharts are used in designing and documenting simple processes or programs. Like other types of diagrams, they help visualize what is going on and thereby help understand a process, and perhaps also find less-obvious features within the process, like flaws and bottlenecks. There are different types of flowcharts: each type has its own set of boxes and notations. The two most common types of boxes in a flowchart are:

- A processing step, usually called activity, and denoted as a rectangular box.
- A decision, usually denoted as a diamond.

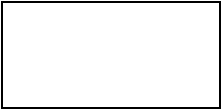
A flowchart is described as "cross-functional" when the chart is divided into different vertical or horizontal parts, to describe the control of different organizational units. A symbol appearing in a particular part is within the control of that organizational unit. A cross-functional flowchart allows the author to correctly locate the responsibility for performing an action or making a decision, and to show the responsibility of each organizational unit for different parts of a single process.

Symbols used in the Flowchart



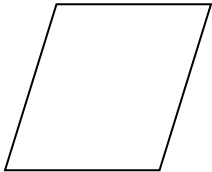
: Start or Stop

Rounded Rectangle



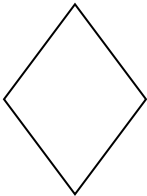
: Processing

Rectangle



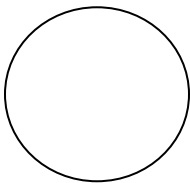
: InputorOutput

Parallelogram



: Condition

Diamond



: Connector

Circle



: Direction (Logic Flow)

Flow Line

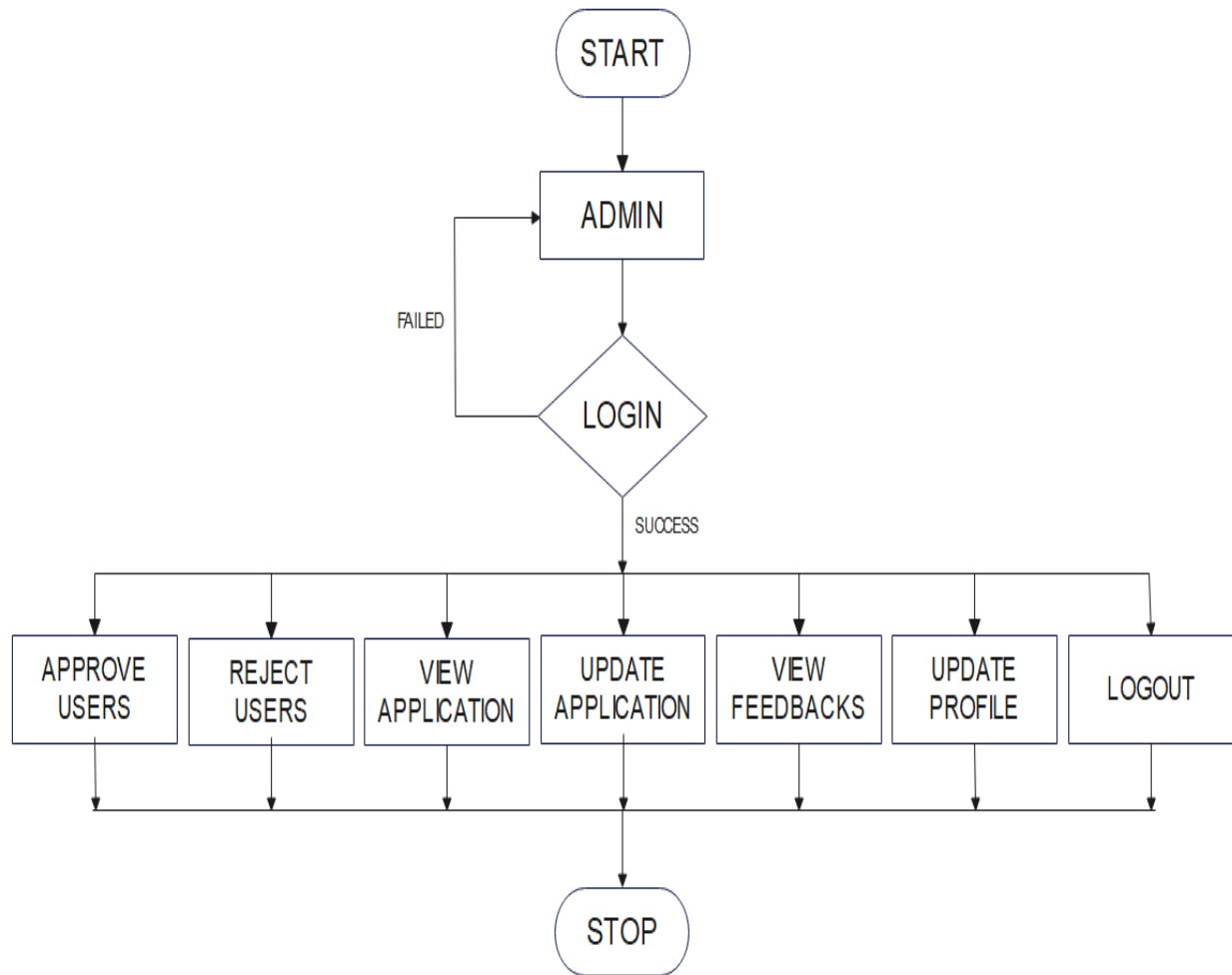


Figure2.9.1: Flow Chart for Admin

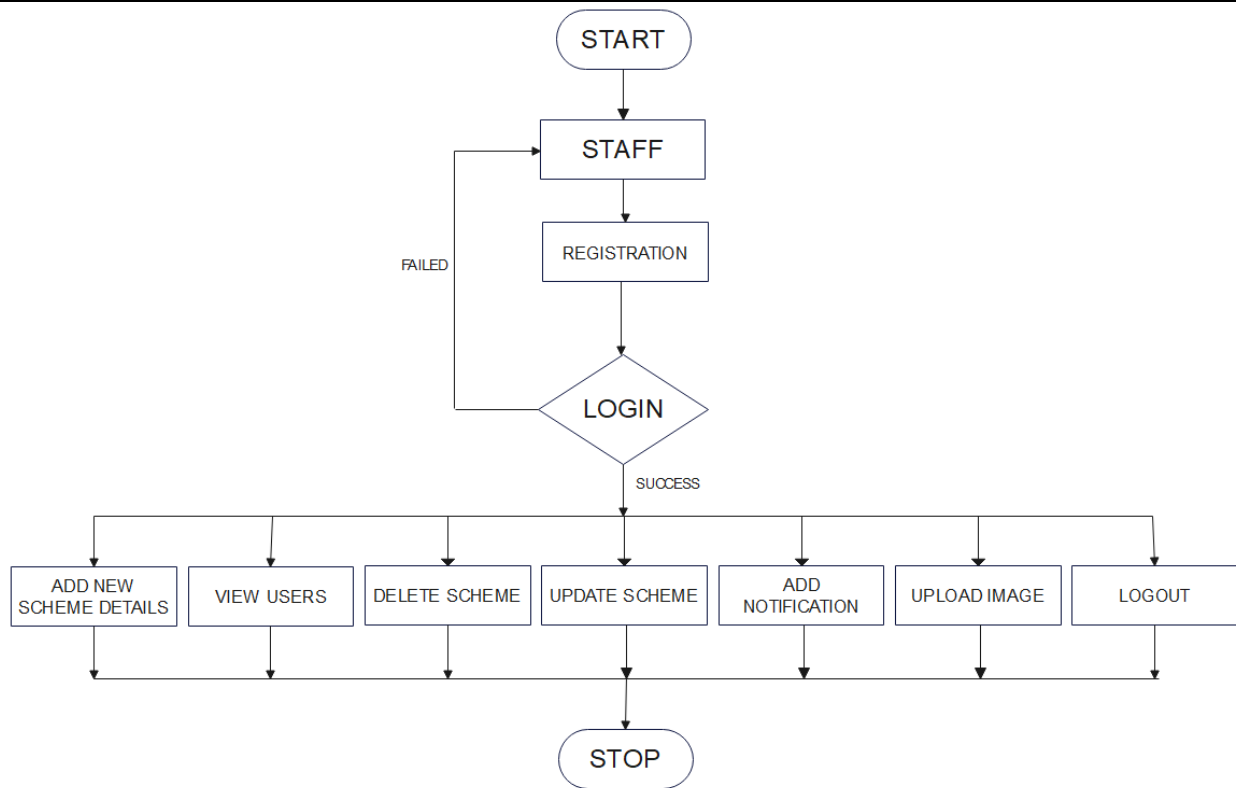


Figure2.9.2: Flow Chart for Staff

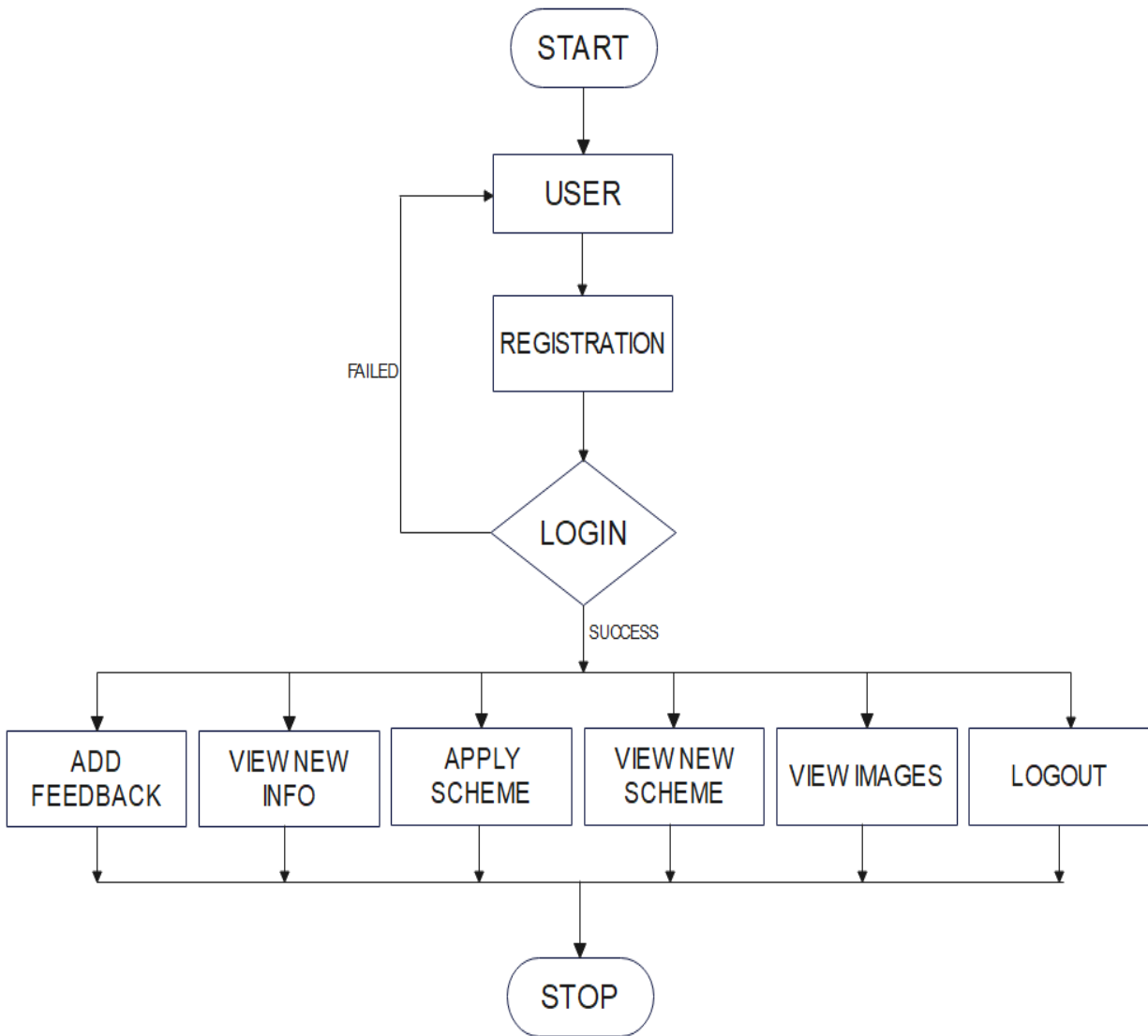


Figure2.9.3: Flow Chart for Users

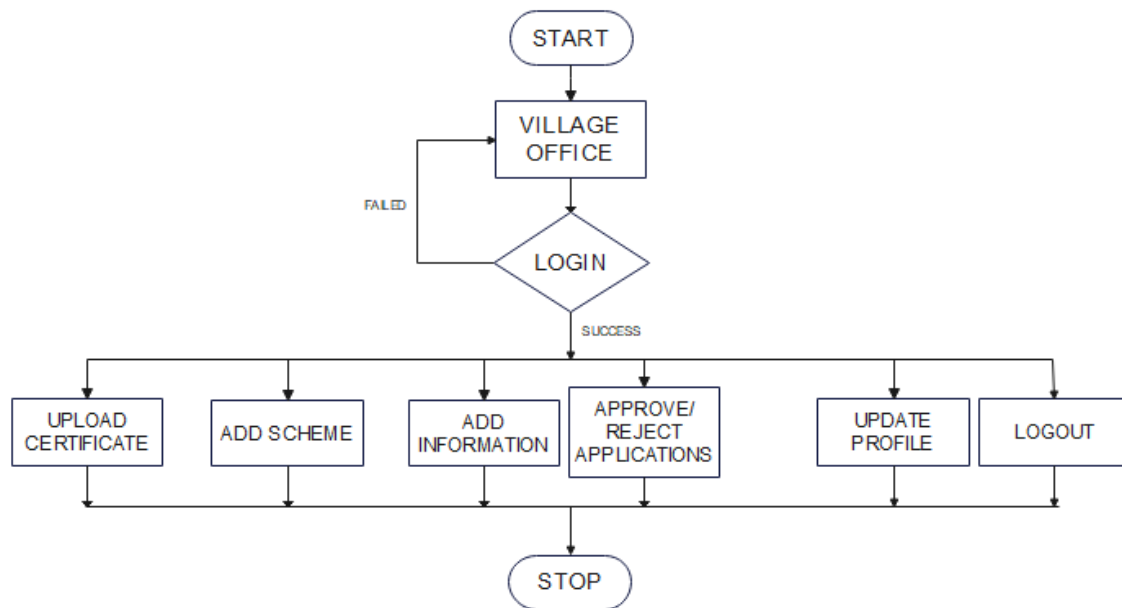


Figure2.9.4: Flow Chart for Village Office

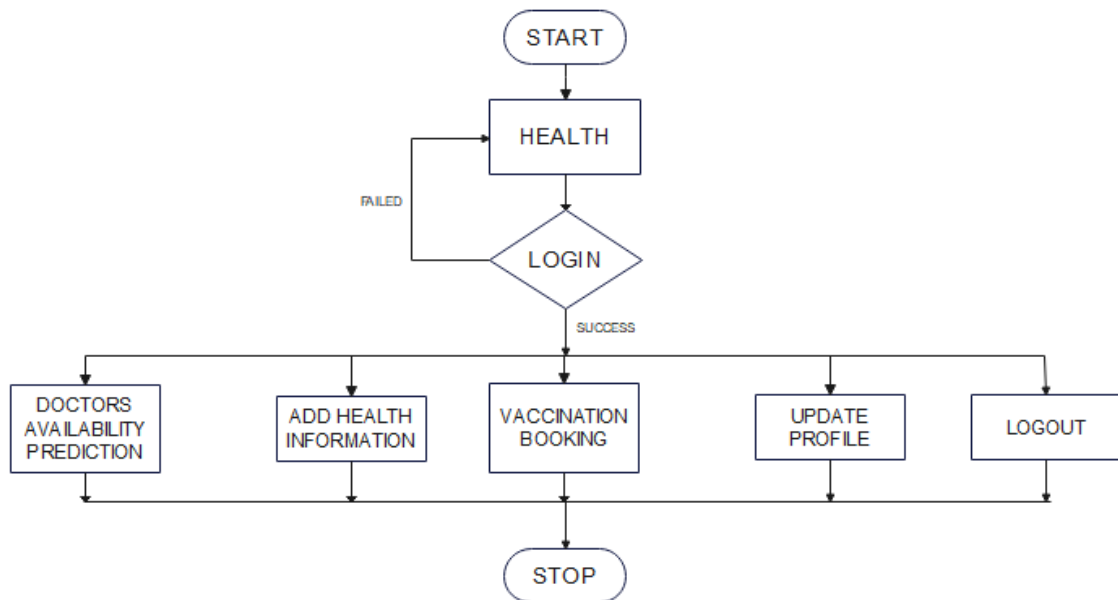


Figure2.9.5: Flow Chart for Health

CHAPTER-3

SYSTEM DESIGN

System design is the solution for the creation of a new system. This phase focuses on the detailed implementation of the feasible system. It's emphasis on translating design specifications to performance specification. System design has two phases of development.

- Logical design
- Physical design

During logical design phase the analyst describes inputs (sources), outputs (destinations), databases (data stores) and procedures (data flows) all in a format that meets the user requirements. The analyst also specifies the needs of the user at a level that virtually determines the information flow in and out of the system and the data resources. Here the logical design is done through data flow diagrams and database design. The physical design is followed by physical design or coding. Physical design produces the working system by defining the design specifications, which specify exactly what the candidate system must do. The programmers write the necessary programs that accept input from the user, perform necessary processing on accepted data and produce the required report on a hard copy or display it on the screen.

3.1 MODULE DESCRIPTION

Modules

The system is divided into four modules. The four modules included in this system are:

1. Admin Module
2. Staff Module
3. User Module
4. Unregistered Users Module

Each module specifies the functional requirement of the system:

1. Admin Module

- Approve/ reject users

- View applications
- Update applications
- Update profile
- View feedbacks

2. Staff Module

- Add new scheme details
- Update scheme
- Delete scheme
- View users
- Add new notification details
- Upload images

3. User Module

- View new scheme
- View new information
- Apply scheme
- Add feedback
- View images

4. Village Office

- Upload certificate
- Add scheme
- Add information
- Approve / Reject Applications

5. Health

- Doctors availability prediction
- Add health information
- Vaccination booking

3.2 INPUT DESIGN:

Input design is the link that ties the information system into the world of its users. The input design involves determining the inputs, validating the data, minimizing the data entry and provides a multi-user facility. Inaccurate inputs are the most common cause of errors in data processing. Errors entered by the data entry operators can be controlled by input design. The user-originated inputs are converted to a computer-based format in the input design. Input data are collected and organized into groups of similar data. Once identified, the appropriate input media are selected for processing. All the input data are validated and if any data violates any conditions, the user is warned by a message. If the data satisfies all the conditions, it is transferred to the appropriate tables in the database. In this project the student details are to be entered at the time of registration. A page is designed for this purpose which is user friendly and easy to use. The design is done such that users get appropriate messages when exceptions occur.

3.2.1 Input Objectives

Controlling Amount of Input: Wherever user input is required, giving possible input values as default in that area reduces the amount of user keystrokes. Thus, the user can pass on to next data without much typing. This makes the data entry much fast and error free. When the user has the format of input to be given, it will be very easy for the user to give input in the same format.

Avoiding Delay: A processing delay resulting from data entry operations is called a bottleneck. Such bottlenecks are made obsolete in this project by breaking up the amount of data to be entered in each form into different smaller and simpler forms.

Avoiding Errors in Data: The rate at which errors occur depends on the quantity of the data. As told in the above objective these errors are reduced by making the number of data to be entered in each form is reduced.

Avoiding Extra Steps: To fulfil any operation the user have no need to do complex steps, instead any operation can be done with simple easy to use steps.

3.3 OUTPUT DESIGN:

Computer output is the most important and direct source of information to the user. Output design is a very important phase since the output needs to be in an efficient manner. Efficient and

intelligible output design improves the system relationship with the user and helps in decision making. Allowing the user to view the sample screen is important because the user is the ultimate judge of the quality of output. The output module of this system is the selected notifications.

3.3.1 Output Objectives

The output from an information system should accomplish one or more of the following objectives:

- Convey information about past activities, current status, or projections of the future.
- Signal important events, opportunities, problems or warnings
- Trigger an action
- Confirm an action

3.4 DATABASE DESIGN:

Databases are the storehouses of data used in the software systems. The data is stored in tables inside the database. Several tables are created for the manipulation of the data for the system. Two essential settings for a database are - the field that is unique for all the record occurrences. - the field used to set relation between tables. Normalization is a technique to avoid redundancy in the tables.

3.4.1 NORMALIZATION

Normalization is a process of decomposing the attributes in an application, which results in a set of tables with very simple structure. The purpose of normalization is to make tables as simple as possible. Normalization is carried out in this system for the following reasons.

- To structure the data so that there is no repetition of data, this helps in saving space.
- To permit simple retrieval of data in response to query and report request.
- To simplify the maintenance of the data through updates, insertions and deletions.
- To reduce the need to restructure or recognize data which new application requirements arise.

Primary key is assigned for this purpose. The primary key fields in almost all the tables help to ease the search and improve efficiency. The proposed system is using the second normal form as it is found most suitable. In second normal form each row must contain associated fields that describe an attribute of the entry that the table describes.

Here are the most commonly used normal forms:

- First normal form(1NF)
- Second normal form(2NF)
- Third normal form(3NF)

3.4.1.1 First Normal Form(1NF)

As per the rule of first normal form, an attribute of a table cannot hold multiple values. It should hold only atomic values.

3.4.1.2 Second Normal Form(2NF)

A table is said to be in 2NF if both the following conditions hold:

- Table is in 1NF (First normal form).
- No non-prime attribute is dependent on proper subset of any candidate key of table.

An attribute that is not part of any candidate key is known as non-prime attribute.

3.4.1.3 Third Normal Form (3NF)

A table design is said to be in 3NF if both the following conditions hold:

- Table must be in 2NF
- Transitive functional dependency of non-prime attribute or any super key should be removed.

An attribute that is not part of any candidate key is known as non-prime attribute.

In other words, 3NF can be explained like this: A table is in 3NF if it is in 2NF and for each functional dependency $X \rightarrow Y$ at least one of the following conditions hold:

- X is a super key of table
- Y is a prime attribute of table

An attribute that is part of one of the candidate key is known as prime attribute.

Tables in this project uses second normal form.

3.5 TABLES DESIGN

The database tables used in this project are given below:

Table 1

Name: login

Description: For entering login details

Sl. No	Name	Data Type	Constraints	Description
1	loginid	Int(5)	Primary key	Login Id
1	username	Varchar (30)	Not null	Username
2	password	Varchar(25)	Not null	Password
3	Type	Varchar (10)	Not null	User type
4	status	Int (3)	Not null	Status

Table 2

Name:sreg

Description: For entering staff registration

Sl. No	Name	Data Type	Constraints	Description
1	Sid	Int (11)	Primary key	Staff id
2	sname	Varchar (30)	Not null	Staff name
3	saddress	Int(50)	Not null	Staffaddress

4	sphno	Varchar (10)	Not null	Staff phone number
5	semailid	Varchar(30)	Not null	Staff email id
6	sdept	Varchar (50)	Not null	Staff department
7	Post	Varchar (30)	Not null	Staff Post

Table 3**Name:** ureg**Description:** For entering public registration

Sl. No	Name	Data Type	Constraints	Description
1	Uid	Int(5)	Primary key	User id
2	surname	Varchar (5)	Not null	Sur name
3	name	Varchar (15)	Not null	User name
4	gender	Varchar (10)	Not null	Gender
5	house_name	Varchar (15)	Not null	House name
6	house_no	Varchar (15)	Not null	House number
7	street_name	Varchar (20)	Not null	Street name
8	City	Varchar (20)	Not null	City name
9	district	Varchar (20)	Not null	District
10	pincode	Varchar (20)	Not null	Pincode
11	aadhar	Varchar (20)	Not null	Aadhar number
12	Phno	Varchar (20)	Not null	Phone number
13	mailid	Varchar (30)	Not null	Email id

Table 4**Name:** scheme**Description:** For entering new scheme details

Sl. No	Name	Data Type	Constraints	Description
1	scheme_id	Int (5)	Primary key	Scheme id
2	Sid	Int (11)	Foreign key	Staff id
3	scheme_title	Varchar (50)	Not null	Scheme title
4	scheme_desc	Varchar (100)	Not null	Scheme description
5	scheme_file	Text	Not null	Scheme file
6	scheme_date	Date	Not null	Scheme date
7	scheme_status	Int (3)	Not null	Scheme status

Table 5**Name:** images**Description:** For entering gallery images

Sl. No	Name	Data Type	Constraints	Description
1	img_id	Int (5)	Primary key	Image id
2	img_file	Text	Not null	Image file
3	img_title	Varchar (30)	Not null	Image title
4	img_desc	Varchar (50)	Not null	Image description
5	img_date	Date	Not null	Image date
6	img_status	Int (4)	Not null	Image status

Table 6**Name:** info**Description:** For entering new informations

Sl. No	Name	Data Type	Constraints	Description
1	info_id	Int (5)	Primary key	Information id
2	Sid	Int(11)	Foreign key	Staff id
3	info_title	Varchar (30)	Not null	Information title
4	info_desc	Varchar (100)	Not null	Information description
5	info_date	Date	Not null	Information date
6	info_status	Int (3)	Not null	Informationstatus

Table 7**Name:** application**Description:** For entering application details

Sl. No	Name	Data Type	Constraints	Description
1	application_id	Int (5)	Primary key	Application id
2	scheme_id	Int (5)	Foreign key	Scheme id
3	Uid	Int(5)	Foreign key	User id
4	replay	Text	Not null	Replay
5	status	Int (3)	Not null	Application status
6	Date	Date	Not null	Application date

Table 8**Name:** feedback**Description:** For entering feedback details

Sl. No	Name	Data Type	Constraints	Description
1	Fid	Int (5)	Primary key	Feedback id
2	Uid	Int (5)	Foreign key	User id
3	feedback	Varchar (30)	Not null	Feedback
4	Fdate	Date	Not null	Feedback Date

CHAPTER-4

SYSTEM CODING

4.1 Programlist

PROGRAM NAME	DESCRIPTION
index.php	Main Home Page
Reg.php	Registration for public
Check.php	Login process controller file

4.2 SourceCode

4.2.1 index.php – Main Home Page

```
<!DOCTYPE html>
<html lang="en">

<head>
<meta charset="utf-8">
<title>Digi - Panchayat</title>
<meta content="width=device-width, initial-scale=1.0" name="viewport">
<meta content="" name="keywords">
<meta content="" name="description">

<!-- Favicon -->
<link href="img/favicon.ico" rel="icon">

<!-- Google Web Fonts -->
<link rel="preconnect" href="https://fonts.googleapis.com">
<link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
```

```
<link
href="https://fonts.googleapis.com/css2?family=Heebo:wght@400;500&family=Roboto:wght@400;500;700&display=swap" rel="stylesheet">
```

```
<!-- Icon Font Stylesheet -->
```

```
<link href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/5.10.0/css/all.min.css" rel="stylesheet">
```

```
<link href="https://cdn.jsdelivr.net/npm/bootstrap-icons@1.4.1/font/bootstrap-icons.css"
rel="stylesheet">
```

```
<!-- Libraries Stylesheet -->
```

```
<link href="lib/animate/animate.min.css" rel="stylesheet">
```

```
<link href="lib/owlcarousel/assets/owl.carousel.min.css" rel="stylesheet">
```

```
<link href="lib/lightbox/css/lightbox.min.css" rel="stylesheet">
```

```
<!-- Customized Bootstrap Stylesheet -->
```

```
<link href="css/bootstrap.min.css" rel="stylesheet">
```

```
<!-- Template Stylesheet -->
```

```
<link href="css/style.css" rel="stylesheet">
```

```
</head>
```

```
<body>
```

```
<div class="container-xxlbg-white p-0">
```

```
<!-- Spinner Start -->
```

```
<div id="spinner" class="show bg-white position-fixed translate-middle w-100 vh-100 top-50 start-50 d-
flex align-items-center justify-content-center">
```

```
<div class="spinner-grow text-primary" style="width: 3rem; height: 3rem;" role="status">
```

```
<span class="sr-only">Loading...</span>
```

```
</div>
```

```
</div>
```

```
<!-- Spinner End -->
```

<!-- Navbar & Hero Start -->

<?php

include'includes/head.php';

?>

<div class="container-xxl py-5 bg-primary hero-header mb-5">

<div class="container my-5 py-5 px-lg-5">

<div class="row g-5 py-5">

<div class="col-lg-6 text-center text-lg-start">

<h1 class="text-white mb-4 animated zoomIn">DIGITAL PANCHAYAT</h1>

<p class="text-white pb-3 animated zoomIn">Govt of Kerala</p>

</div>

<div class="col-lg-6 text-center text-lg-start">

</div>

</div>

</div>

</div>

</div>

<!-- Navbar & Hero End -->

<!-- Full Screen Search Start -->

<div class="modal fade" id="searchModal" tabindex="-1">

<div class="modal-dialog modal-fullscreen">

<div class="modal-content" style="background: rgba(29, 29, 39, 0.7);">

<div class="modal-header border-0">

<button type="button" class="btnbg-white btn-close" data-bs-dismiss="modal" aria-label="Close"></button>

```
</div>

<div class="modal-body d-flex align-items-center justify-content-center">

<div class="input-group" style="max-width: 600px;">

                                <form action="check.php" method="POST">


<div class="row g-3">
<div class="col-md-6">
<div class="form-floating">
<input type="email" class="form-control" id="name" placeholder="User Name" name="username"
required>
<label for="name">User Name</label>
</div>
</div>
<div class="col-md-6">
<div class="form-floating">
<input type="password" class="form-control" id="email" name="password" placeholder="Your
Password" required>
<label for="email">Password</label>
</div>
</div>

<div class="col-12">
<button class="btn btn-primary w-100 py-3" type="submit" name="submit">login</button>
</div>
</div>
</form>
</div>
</div>
</div>
</div>
```

</div>

<!-- Full Screen Search End -->

<!-- About Start -->

<!-- About End -->

<!-- Newsletter Start -->

<!-- Newsletter End -->

<!-- Service Start -->

<!-- Service End -->

<!-- Portfolio Start -->

<!-- Portfolio End -->

<!-- Testimonial Start -->

<!-- Testimonial End -->

<!-- Team Start -->

<!-- Team End -->

<!-- Footer Start -->

<?php

```
include'includes/footer.php';

?>

<!-- Footer End -->


<!-- Back to Top -->

<a href="#" class="btn btn-lg btn-primary btn-lg-square back-to-top pt-2"><i class="bi bi-arrow-up"></i></a>

</div>


<!-- JavaScript Libraries -->

<script src="https://code.jquery.com/jquery-3.4.1.min.js"></script>
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.0/dist/js/bootstrap.bundle.min.js"></script>
<script src="lib/wow/wow.min.js"></script>
<script src="lib/easing/easing.min.js"></script>
<script src="lib/waypoints/waypoints.min.js"></script>
<script src="lib/owlcarousel/owl.carousel.min.js"></script>
<script src="lib/isotope/isotope.pkgd.min.js"></script>
<script src="lib/lightbox/js/lightbox.min.js"></script>


<!-- Template Javascript -->

<script src="js/main.js"></script>

</body>

</html>
```

4.2.2Reg.php – Registration for public

```
<?php

include 'includes/dbconnect.php';
```

```
if(isset($_POST['submit1']))
{
    $id=autoid("ureg","uid");

    $flag=0;

    //sur,name,gender,hname,hno,sname,city,district,pincode,adar,phno,mailid,password,cpassword

    $sur=$_POST['sur'];
    $name=$_POST['name'];
    $gender=$_POST['gender'];
    $hname=$_POST['hname'];
    $hno=$_POST['hno'];
    $sname=$_POST['sname'];
    $city=$_POST['city'];
    $district=$_POST['district'];
    $pincode=$_POST['pincode'];
    $adar=$_POST['adar'];
    $phno=$_POST['phno'];
    $mailid=$_POST['mailid'];
    $password=$_POST['password'];
    $cpassword=$_POST['cpassword'];
    $date=date('y-m-d');

    if($password!=$cpassword)
    {
        $flag=1;
    }

    if($flag==0)
```

```
{

    $data="SELECT * FROM ureg natural join login";
    $c=0;
    $sd="SELECT * FROM ureg";
    $p=mysql_query($sd,$con);
    while($row=mysql_fetch_array($p))
    {
        $c++;
    }
    $c++;
    $sq=mysql_query($data,$con);
    while($row=mysql_fetch_array($sq))
    {
        if($row['mailid']==$mailid||$row['phno']==$phno)
        {
            $flag=1;
        }
    }
    if($flag==1)
    {
        echo"<script>alert('This account already exists');</script>";
    }
    else if($flag==0)
    {
        $sql="INSERT INTO `ureg` VALUES
('$id','$sur','$name','$gender','$hname','$hno','$sname','$city','$district','$pincode','$adar','$phno','$mailid')
";
        if(mysql_query($sql,$con))
```

```
{
    $sql1="INSERT INTO `login`VALUES ('$mailid','$password','public',0)";
    if(mysql_query($sql1,$con))
    {
        echo"<script>alert('Account created ! Please login ');</script>";

    }
}
}
}
else
{
    echo"<script>alert('Password doesn't match');</script>";
}
}

?>
```

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="utf-8"><title>Digi - Panchayat</title>

<meta content="width=device-width, initial-scale=1.0" name="viewport">

<meta content="" name="keywords">

<meta content="" name="description">

<!-- Favicon -->

<link href="img/favicon.ico" rel="icon">

<!-- Google Web Fonts -->

```
<link rel="preconnect" href="https://fonts.googleapis.com">

<link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>

<link
href="https://fonts.googleapis.com/css2?family=Heebo:wght@400;500&family=Roboto:wght@400;500;700&display=swap" rel="stylesheet">

<!-- Icon Font Stylesheet -->

<link href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/5.10.0/css/all.min.css" rel="stylesheet">

<link href="https://cdn.jsdelivr.net/npm/bootstrap-icons@1.4.1/font/bootstrap-icons.css"
rel="stylesheet">

<!-- Libraries Stylesheet -->

<link href="lib/animate/animate.min.css" rel="stylesheet">

<link href="lib/owlcarousel/assets/owl.carousel.min.css" rel="stylesheet">

<link href="lib/lightbox/css/lightbox.min.css" rel="stylesheet">

<!-- Customized Bootstrap Stylesheet -->

<link href="css/bootstrap.min.css" rel="stylesheet">

<!-- Template Stylesheet -->

<link href="css/style.css" rel="stylesheet">

<style>

#customers {
    font-family: Arial, Helvetica, sans-serif;
    border-collapse: collapse;
    width: 100%;
}

#customers td, #customers th {
    border: 1px solid #ddd;
    padding: 8px;
```

```
}
```

```
#customers tr:nth-child(even){background-color: #f2f2f2;}
```

```
#customers tr:hover {background-color: #ddd;}
```

```
#customersth {  
  padding-top: 12px;  
  padding-bottom: 12px;  
  text-align: left;  
  background-color: #04AA6D;  
  color: white;  
}
```

```
</style>
```

```
</head>
```

```
<body>
```

```
<div class="container-xxlbg-white p-0">
```

```
<!-- Spinner Start -->
```

```
<div id="spinner" class="show bg-white position-fixed translate-middle w-100 vh-100 top-50 start-50 d-flex align-items-center justify-content-center">
```

```
<div class="spinner-grow text-primary" style="width: 3rem; height: 3rem;" role="status">
```

```
<span class="sr-only">Loading...</span>
```

```
</div>
```

```
</div>
```

```
<!-- Spinner End -->
```

```
<!-- Navbar & Hero Start -->
```

```
<?php
```

```
include'includes/head.php';

?>

<div class="container-xxl py-5 bg-primary hero-header mb-5">
<div class="container my-5 py-5 px-lg-5">
<div class="row g-5 py-5">

</div>
</div>
</div>
</div>
<!-- Navbar & Hero End -->

<!-- Full Screen Search Start -->
<div class="modal fade" id="searchModal" tabindex="-1">
<div class="modal-dialog modal-fullscreen">
<div class="modal-content" style="background: rgba(29, 29, 39, 0.7);">
<div class="modal-header border-0">
<button type="button" class="btnbg-white btn-close" data-bs-dismiss="modal" aria-
label="Close"></button>
</div>
<div class="modal-body d-flex align-items-center justify-content-center">
<div class="input-group" style="max-width: 600px;">
<input type="text" class="form-control bg-transparent border-light p-3" placeholder="Type search
keyword">
<button class="btnbtn-light px-4"><i class="bi bi-search"></i></button>
</div>
</div>
</div>
</div>
```

</div>

</div>

<!-- Full Screen Search End -->

<!-- Contact Start -->

<div class="container-xxl py-5">

<div class="container px-lg-5">

<div class="row justify-content-center">

<div class="col-lg-7">

<div class="section-title position-relative text-center mb-5 pb-2 wow fadeInUp" data-wow-delay="0.1s">

<h6 class="position-relative d-inline text-primary ps-4">Register Now</h6>

<h2 class="mt-2">Registration for public</h2>

</div>

<div class="wow fadeInUp" data-wow-delay="0.3s">

<form action="" method="POST">

<table id="customers">

<tr><td>Surname</td><td><select name="sur"><option>- Select Surname -</option>

<option value="Mr.">- Mr. -</option>

<option value="Prof.">- Prof. -</option>

<option value="Ms.">- Ms. -</option></select></td></tr>

<tr><td>Name</td><td><input type="text" name="name" pattern="[a-zA-Z]{3,30}" title="Minimum 3 & maximum 30 characters. Letters only permitted." required></td></tr>

<tr><td>Gender</td><td><select name="gender"><option>- Select Gender -</option>

<option value="Male">- Male -</option>

<option value="Female">- Female -</option></select></td></tr>

<tr><td>House Name</td><td><input type="text" name="hname" pattern="[a-zA-Z]{3,30}" title="Minimum 3 & maximum 30 characters. Letters only permitted." required></td></tr>

```
<tr><td>House No.</td><td><input type="text" name="hno" pattern="[a-zA-Z0-9]{3,50}"
title="Minimum 3 & maximum 50 characters."required></td></tr>

<tr><td>Street Name</td><td><input type="text" name="sname" pattern="[a-zA-Z]{3,30}"
title="Minimum 3 & maximum 30 characters. Letters only permitted." required></td></tr>

<tr><td>City</td><td><input type="text" name="city" pattern="[a-zA-Z]{3,30}" title="Minimum 3 &
maximum 30 characters. Letters only permitted." required></td></tr>

<tr><td>District</td><td><input type="text" name="district" pattern="[a-zA-Z]{3,30}" title="Minimum 3
& maximum 30 characters. Letters only permitted." required></td></tr>

<tr><td>Pincode</td><td><input type="text" name="pincode" pattern="[0-9]{6}" title="6 numbers only."
required></td></tr>

<tr><td>Aadhar No.</td><td><input type="text" name="adar" pattern="[0-9]{12}" title="12 numbers
only."required></td></tr>

<tr><td>Mobile No.</td><td><input type="text" name="phno" pattern="[0-9]{10}" title="10 numbers
only."required></td></tr>

<tr><td>Email</td><td><input type="email" name="mailid" required></td></tr>

<tr><td>Password</td><td><input type="password" name="password" pattern="(?=.*\d)(?=.*[a-
z])(?=.*[A-Z]).{8,}" title="Must contain at least one number and one uppercase and lowercase letter, and
at least 8 or more characters" required></td></tr>

<tr><td>Confirm Password</td><td><input type="password" name="cpassword"
pattern="(?=.*\d)(?=.*[a-z])(?=.*[A-Z]).{8,}" title="Must contain at least one number and one uppercase
and lowercase letter, and at least 8 or more characters" required></td></tr>

<tr><td><input type="submit" name="submit1" value="Submit"></td>

<td><input type="submit" name="submit2" value="Cancel"></td></tr>

</table>

</form>

</div>

</div>

</div>

</div>

</div>

<!-- Contact End -->
```

```
<?php

    include'includes/footer.php';

    ?>

<!-- Footer End -->


<!-- Back to Top -->

<a href="#" class="btn btn-lg btn-primary btn-lg-square back-to-top pt-2"><i class="bi bi-arrow-up"></i></a>

</div>


<!-- JavaScript Libraries -->

<script src="https://code.jquery.com/jquery-3.4.1.min.js"></script>
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.0/dist/js/bootstrap.bundle.min.js"></script>
<script src="lib/wow/wow.min.js"></script>
<script src="lib/easing/easing.min.js"></script>
<script src="lib/waypoints/waypoints.min.js"></script>
<script src="lib/owlcarousel/owl.carousel.min.js"></script>
<script src="lib/isotope/isotope.pkgd.min.js"></script>
<script src="lib/lightbox/js/lightbox.min.js"></script>


<!-- Template Javascript -->

<script src="js/main.js"></script>

</body>

</html>
```

4.2.3 check.php – Login

```
<?php
```

```
$username=$_POST['username'];
$password=$_POST['password'];

include('includes/dbconnect.php');

$result = mysql_query("SELECT * FROM login WHERE username='$username'AND
password='$password' and status='1'", $con);

$flag=0;
$status='0';
if($result)
{
    while($row = mysql_fetch_array($result))
    {
        $status=$row['status'];
        if($status==1)
        {
            $flag=1;
            session_start();
            $type=$row['type'];
            $_SESSION['user'] = $type;
            $_SESSION['username'] = $username;
        }
    }
}

if($flag==1 && $type=="admin")
    echo "<script>location.href='admin/index.php'</script>";
else if($flag==1 && $type=="public")
    echo "<script>location.href='public/index.php'</script>";
else if($flag==1 && $type=="staff")
```

```
echo "<script>location.href='staff/index.php'</script>";

else if($status=='0')
    echo"<script>alert('Your account is not validated');location.href='index.php';</script>";

else
    echo"<script>alert('Invalid Username or Password');location.href='index.php';</script>";

mysql_close($con);
?>
```

CHAPTER-5

SYSTEM TESTING

System testing is a critical aspect of Software Quality Assurance and represents the ultimate review of specification, design and coding. Testing is a process of executing a program with the intent of finding an error. A good test is one that has a probability of finding undiscovered error. The purpose of testing is to identify and correct bugs in the developed system. Nothing is complete without testing. Testing is the vital to the success of the system.

Testing is the process of running a system with the intention of finding errors. Testing enhances the integrity of a system by detecting deviations in design and errors in the system. Testing aims at detecting error-prone areas. This helps in the prevention of errors in a system. Testing also adds value to the product by conforming to the user requirements.

The main purpose of testing is to detect errors and error-prone areas in a system. Testing must be thorough and well-planned. A partially tested system is as bad as an untested system. And the price of an untested and under-tested system is high.

The implementation is the final and important phase. It involves user-training, system testing in order to ensure successful running of the proposed system. The user tests the system and changes are made according to their needs. The testing involves the testing of the developed system using various kinds of data. While testing, errors are noted and correctness is the mode.

The testing steps performed are given below:

- Unit testing.
- Integration testing.
- Acceptance testing.

5.1 Unit Testing

Unit testing focuses efforts on the smallest unit of software design. This is known as module testing. The modules are tested separately. The test is carried out during programming stage

itself. In this step, each module is found to be working satisfactory as regards to the expected output from the module.

5.2 Integration Testing

Data can be lost across an interface. One module can have an adverse effect on another, sub functions, when combined, may not be linked in desired manner in major functions. Integration testing is a systematic approach for constructing the program structure, while at the same time conducting test to uncover errors associated within the interface. The objective is to take unit tested modules and builds program structure. All the modules are combined and tested as a whole.

5.3 Acceptance Testing

User acceptance of a system is the key factor for the success of any system. The system under consideration is tested for the user acceptance by constantly keeping in touch with the prospective system users at the time of developing and making changes whenever required.

CHAPTER-6

SYSTEM IMPLEMENTATION

Implementation is the process of bringing developed system into operational use and turning it over to the user. Implementation is the stage of the project where the theoretical design is turned into working system. In this stage the installation of the package in the real environment, to the satisfaction of the intended user and the operation of the system.

Implementation includes all those activities that take place to convert from old system to new one.

Implementation is the phase, in which one has to be cautious, because the efforts undertaken during the project will be fruitful only if the software is properly implemented according to the plan made. The implementation phase is less creative than system design. The system implementation was carried out using five main aspects:

- Transition planning
- Training
- Security
- Protection
- Quality control

The complexity of implementing product software differs on several issues. Examples are: the number of end users that will use the product software, the effects that the implementation has on changes of tasks and responsibilities for the end user, the culture and the integrity of the organization where the software is going to be used and the budget available for acquiring product software.

In general, differences are identified on a scale of size (bigger, smaller, more, less). An example of the “smaller” product software is the implementation of an office package. However there could be a lot of end users in an organization, the impact on the tasks and responsibilities of the end users will not be too intense, as the daily workflow of the end user is not changing significantly

6.1 IMPLEMENTATION PLANNING

Implementation of a system involves people from different departments and system analysts are confronted

with the practical problems of controlling the activities of people outside their own data processing departments prior to this point in the project system, system analysts have interviewed department staff with the permission of their respective managers.

The implementation coordination committee should be responsible for a successful implementation.

There should be at least one representative of each department affected by the changes and other members should be opted for discussion of specific topics.

6.2 TRAINING

Training section must aim to give user staff the specific skills required in their new jobs.

The training will be more successful if conducted by the supervisor with the system analyst's attendance to sort out any queries, new methods gain acceptable more quickly in this way.

CHAPTER-7

SYSTEM MAINTENANCE

Software maintenance is widely accepted part of SDLC now a days. It stands for all the modifications and updations done after the delivery of software product. There are number of reasons, why modifications are required, some of them are briefly mentioned below:

- **Market Conditions** - Policies, which changes over the time, such as taxation and newly introduced constraints like, how to maintain bookkeeping, may trigger need for modification.
- **Client Requirements** - Over the time, customer may ask for new features or functions in the software.
- **Host Modifications** - If any of the hardware and/or platform (such as operating system) of the target host changes, software changes are needed to keep adaptability.
- **Organization Changes** - If there is any business level change at client end, such as reduction of organization strength, acquiring another company, organization venturing into new business, need to modify in the original software may arise.

7.1Types of maintenance

In a software lifetime, type of maintenance may vary based on its nature. It may be just a routine maintenance tasks as some bug discovered by some user or it may be a large event in itself based on maintenance size or nature. Following are some types of maintenance based on their characteristics:

7.1.1Corrective Maintenance

Correctivemaintenanceofasystembecomesnecessaryto rectify thebugswwhilethesystemisinuse.

7.1.2Adaptive Maintenance

Asystemmightneedmaintenancewhenthecustomersneedtheproducttorunonnewplatforms,
onnewoperatingsystems, orwhentheyneed
theproducttobeinterfacedwithnewhardwareandsoftware.

7.1.3Perfective Maintenance

Asystemneedsmaintenancetosupportthenewfeaturesthatuserswantittosupport, tochangedifferent
functionalities ofthesystemaccordingofcustomerdemands, ortoenhancethe performance
ofthesystem.

CHAPTER-8

CONCLUSION

The system has been developed with much care and free of errors and at the same time it is efficient and less time consuming. The purpose of this project was to develop a web application for making administrative system in an efficient manner.

This project helped us in gaining valuable information and practical knowledge on several topics like designing web pages using html and CSS, usage of responsive templates and management of database using My SQL. The entire system is secured. Also, the project helped us understanding about the development phases of a project and the software development life cycle. We learned how to test different features of a project.

There is a scope for further development in our project to a great extent. A number of features can be added to this system like providing service details by local body in the website and eligible peoples can easily be apply for the scheme.

CHAPTER-9

FUTURE ENHANCEMENT

This website involves almost all the features needed for an administrative system. The system is designed in such a way that future expansion or modification can be easily implemented. The future implementation will be providing a interface for communicating between user and panchayat officials for effective administration.

APPENDIX A: GANTT CHART

Gantt chart shows the time relationship between ‘events’ of the production program has been regarded as revolutionary in management. Gantt chart recognizes the total program goals and it should be regarded as a series of inter-related supporting plan (or events), that people can comprehend and follow. Gantt charts can be used to show current schedule status using percent complete shadings and a vertical “TODAY” line.

Following figure shows the project schedule Gantt chart of the project.

GANTT CHART								
DIGI PANCHAYAT								
TASK	2022 March 28 To 2022 July 31							
	28March-31March	18April-22April	25April-29April	16May-20May	13June-17June	20June-23June	18July-22July	25July-27July
Requirement Gathering	↔							
Requirement Analysis		↔						
System Design			↔					
Coding and Unit testing				↔				
System Testing					↔			
Project and Report documentation						↔		

APPENDIXB: MEETING MINUTES

B.1 Meeting Minute-1

Date :02-02-2023

Time :10:00am - 12:30pm

Location :SNCT

Present :AKHIL RAJ, SABIN SANTHOSH AND VISHNU P M

On this day we collect all the required data for the development of this system. So, we selected SNCT for our project work. Prof. Salini S Nair gave us a lot of details and suggestions for the successful development of the project. On the basis of those data we selected modules and assign them to each of the members and also started requirement analysis on this day.

B.2 Meeting Minute-2

Date :10-02-2023

Time :10:00am - 12:30pm

Location : SNCT

Present :AKHIL RAJ, SABIN SANTHOSH AND VISHNU P M

In this day we reached our project center and start to design the system. This system has more than 7 tables for storage and retrieval of data, which are designed with the help of our project guide. The forms are designed by analyzing some related sites and the tables are designed.

B.3 Meeting Minute-3

Date :18-02-2023

Time :10:00am - 12:30pm

Location : SNCT

Present :AKHIL RAJ, SABIN SANTHOSH AND VISHNU P M

On this day we start the system coding with the help of our guide. The coding is done in PHP, this phase is more complex to our project development. Various suggestions from our guide and teachers were utilized here. The projects coding is done module wise by each team members.

B.4 Meeting Minute-4

Date :02-03-2023

Time :10:00am - 12:30pm

Location : SNCT

Present :AKHIL RAJ, SABIN SANTHOSH AND VISHNU P M

On this day we start testing each module of our project. After testing each module can be implemented. Also, maintenance of our project is done. Finally, we have checked the working of our project.

APPENDIXC: SCREEN LAYOUTS AND REPORTS

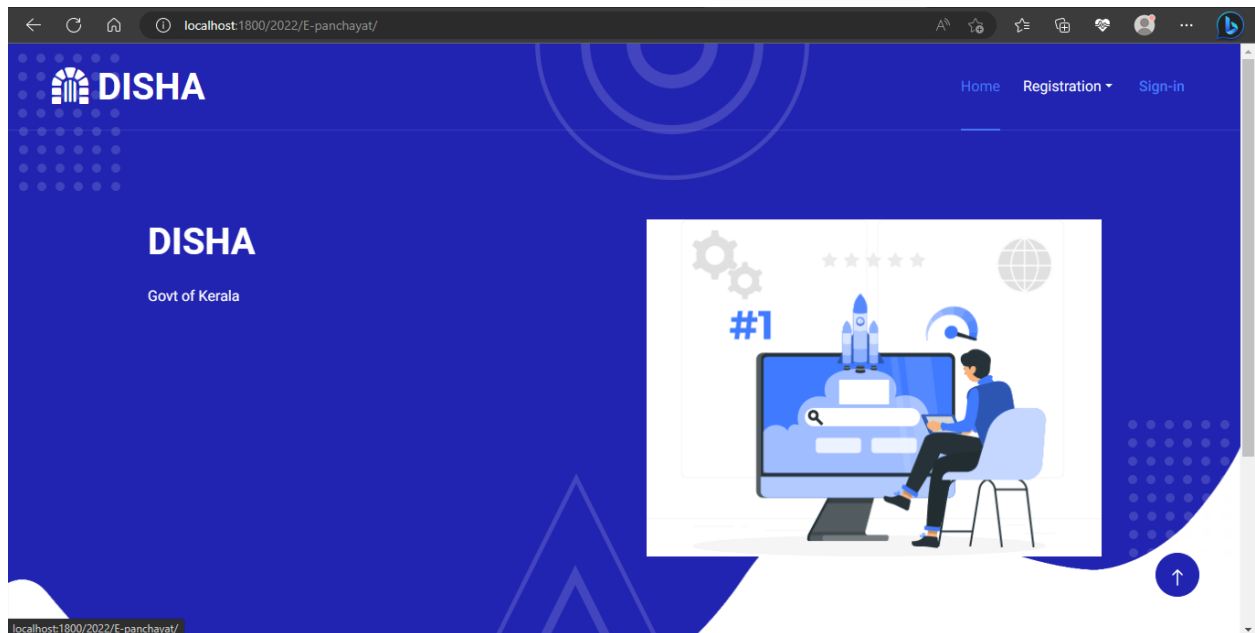


Figure C.1: Home Page

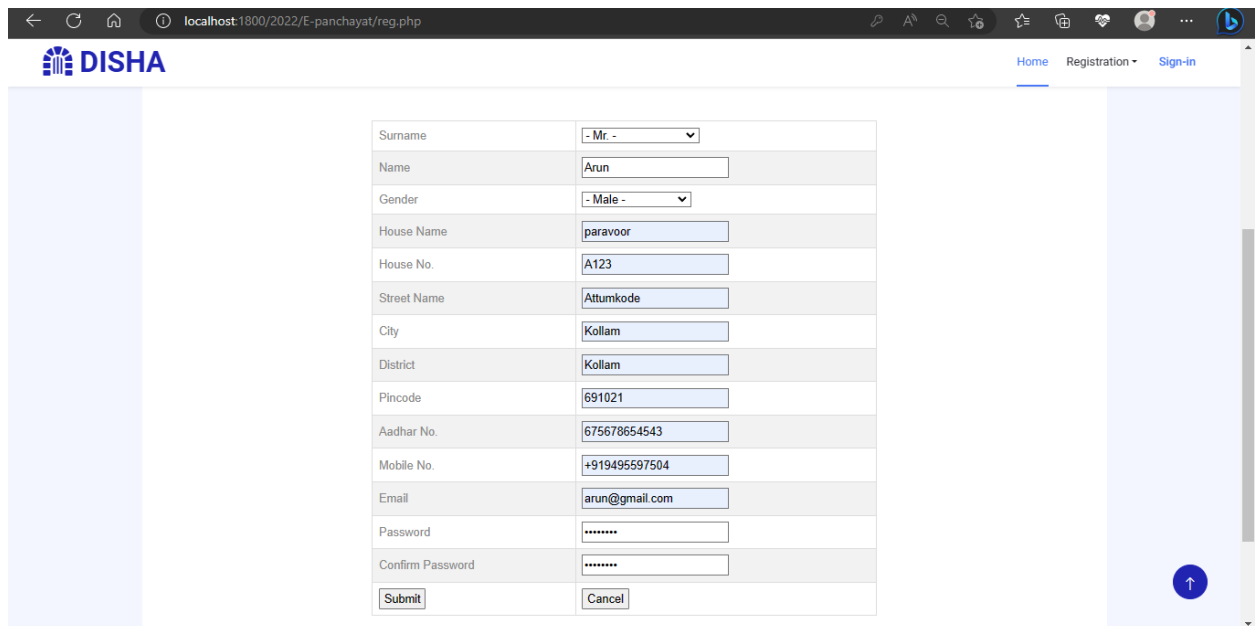
The screenshot shows the user registration form in the DISHA application. The form is titled 'DISHA' and includes a navigation bar with Home, Registration, and Sign-in links. The registration form contains the following fields: Surname (dropdown menu with '- Mr. -'), Name (text input with 'Arun'), Gender (dropdown menu with '- Male -'), House Name (text input with 'paravoor'), House No. (text input with 'A123'), Street Name (text input with 'Attumkode'), City (text input with 'Kollam'), District (text input with 'Kollam'), Pincode (text input with '691021'), Aadhar No. (text input with '675678654543'), Mobile No. (text input with '+919495597504'), Email (text input with 'arun@gmail.com'), Password (text input with '*****'), and Confirm Password (text input with '*****'). There are 'Submit' and 'Cancel' buttons at the bottom of the form. The browser's address bar shows 'localhost:1800/2022/E-panchayat/reg.php'.

Figure C.2: User Registration

localhost:1800/2022/E-panchayat/reg.php

DISHA Home Registration Sign-in

Surname: Mr. Name: Arun Gender: Male House Name: paravoor House No: A123 Street Name: Atunikode City: admin@gmail.com District: Pincode: login Aadhar No: 675678654543 Mobile No: +919495597504 Email: arun@gmail.com Password: Confirm Password: Submit Cancel

Figure C.3:Login Page

localhost:1800/2022/E-panchayat/admin/auser.php

DISHA Home New Requests Approved Users Rejected Users Applications Feedbacks MyProfile Logout

Approved Public Users

Id	Name	Address	Mailid	Phno	Aadhar
1	Mr. Sabin	Althara , A123 , Thoppinkara , Ayathil , Kollam , 691030	sabin@gmail.com	9897654312	675678654543

Figure C.4:Admin-Approved Users

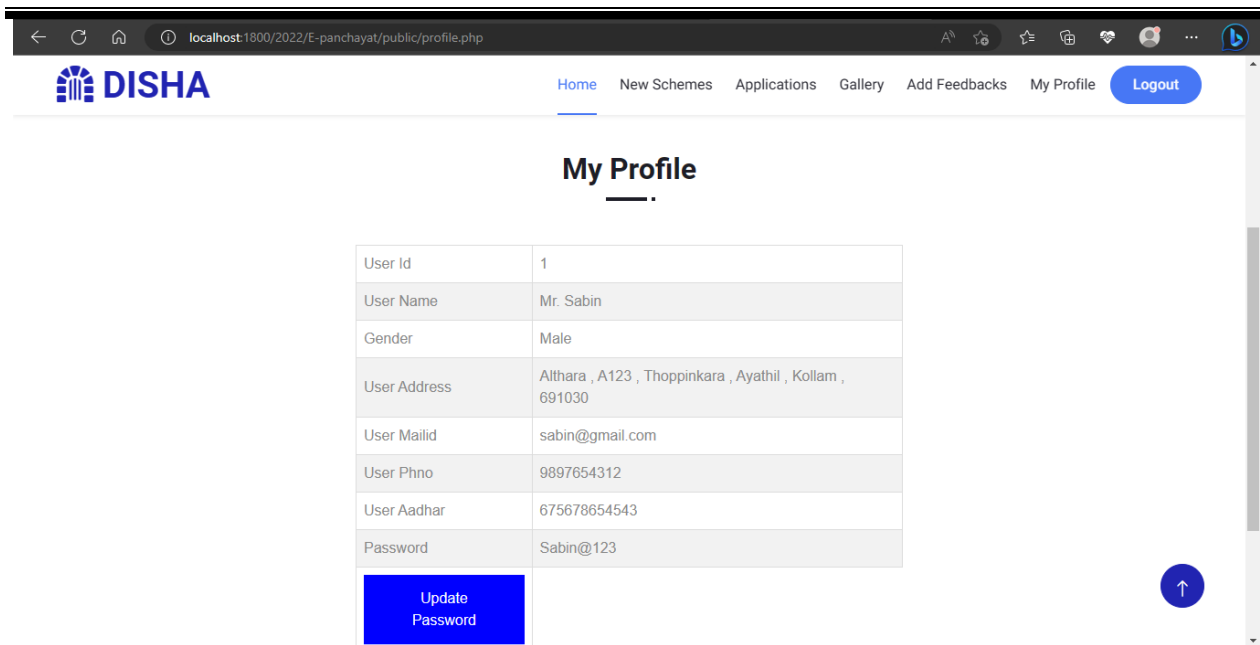


Figure C.5: Staff-Update Profile

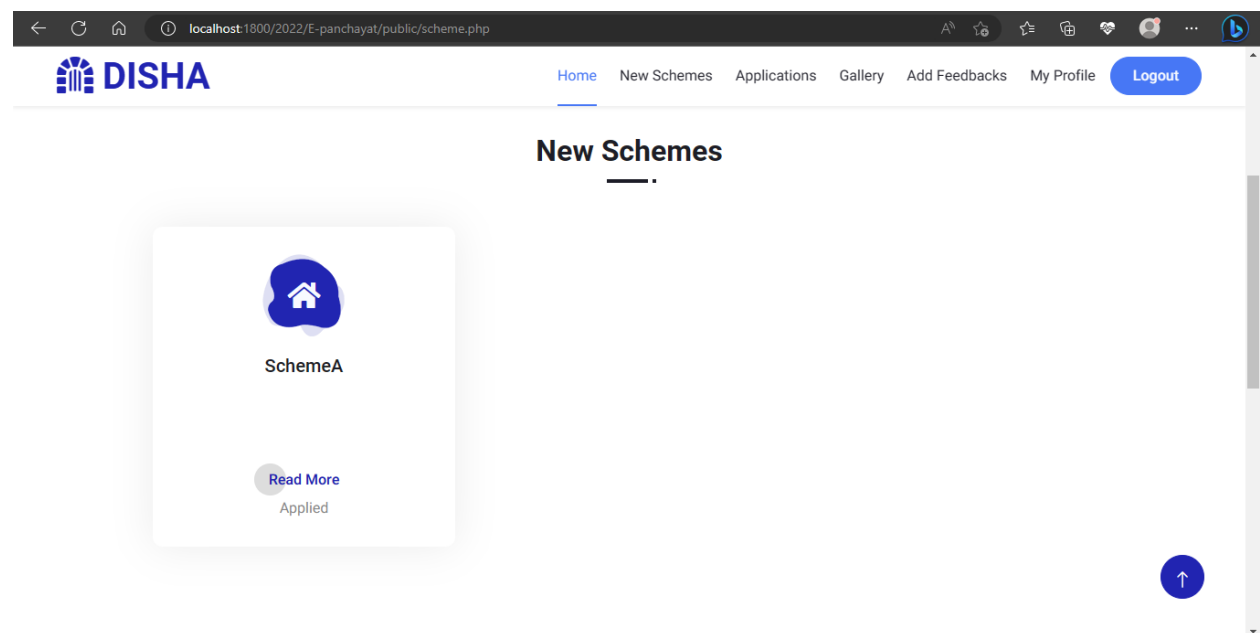


Figure C.6:User-Public Scheme

APPENDIX D: TEST CASES

Table D.1: TEST CASES FOR LOGIN

Test ID	Test Description	Test Procedure	Test Data	Expected Result	Actual Result
User Registration	To test whether the registration details of User are valid	Enter user details	Sabin	Valid registration	Successfully registered
Login	To test whether the username, password of Admin are valid	Enter username and password	Admin *****	Password not matching	Incorrect password
			Admin Asha	Valid login	Valid login
Login	To test whether the username, password of user are valid	Enter username and password	User *****	Wrong password	Incorrect username or password
			Sabin Testuser	Valid login	Valid login
Login	To test whether the username, password of staff are valid	Enter username and password	Staff *****	Wrong password	Incorrect username or password.
			Akhil Teststaff	Valid login	Valid login

BIBLIOGRAPHY

Texts

- 1) K.K Aggarwal, Software Engineering, Third Edition, New Age International Publishers, Year 2009
- 2) Rajib Mall, Fundamentals Of Software Engineering, Third Edition, PHI Learning Pvt Ltd Year 2009
- 3) V.K. Jain, Advanced Programming in Web Design, Cyber Tech Publications
- 4) Julie C.Meloni, PHP, MySQL and Apache, Pearson Education

Website

- <https://www.w3schools.com/php/>
- <https://www.tutorialspoint/php/>
- <https://www.phptpoint.com/php-tutorial/>
- <https://www.mysqltutorial.org/>
- <https://dev.mysql.com/doc/refman/8.0/en/tutorial.html>
- <http://php.net/manual/en/tutorial.php>
- <https://en.wikipedia.org/wiki/MySQL>