DEVELOPMENT OF E-PORTAL FOR MARKETING

Thesis/Dissertation submitted in the partial fulfillment of the requirements for the award of the degree of

BACHELOR OF TECHNOLOGY
in
COMPUTER SCIENCE & ENGINEERING

by

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Under the guidance of
P.ANITHA

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DEPARTMENTMENT OF COMPUTER SCIENCE & ENGINEERING
TKR COLLEGE OF ENGINEERING & TECHOLOGY (AUTONOMOUS)
(Accredited by NBA and NAAC with 'A' Grade)

DECLARATION BY THE CANDIDATES

We, **Mr. B.SAI NITHI** bearing Hall Ticket Number: **17K91A0529**, **Mr. D.VINAY** bearing Hall Ticket Number: **17K91A0558, Ms. D.NANDINI** bearing Hall Ticket Number: **17K91A0559** and **Mr. B.VIKAS** bearing Hall Ticket Number: **17K91A0536** hereby declare that the major project report titled **Development of E-Portal For Marketing** under the guidance of ***Ms.* P.ANITHA, Assistant Professor** in Department of Computer Science & Engineering is submitted in partial fulfillment of the requirements for the award of the degree of ***Bachelor of Technology in Computer Science & Engineering***.

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CERTIFICATE

This is to certify that the main project report entitled **Development of E-Portal For Marketing"**, being submitted by **Mr. B.SAI NITHI**, bearing **Roll.No:.17K91A0529, Mr. D.VINAY**, bearing **Roll.No:.17K91A0558, Ms. D.NANDINI** , bearing **Roll.No:.17K91A0559 and Mr. B.VIKAS ,**bearing **Roll.No:.17K91A0536** in partial fulfillment of requirements for the award of degree of **Bachelor of Technology in Computer Science & Engineering**, to the TKR College of Engineering & Technology is a record of bonafide work carried out by them under my guidance and supervision.

Signature of the Guide
P.ANITHA
Assistant Professor

Signature of the HOD
Dr.A.Suresh Rao
Professor

ACKNOWLEDGEMENT

The satisfaction and euphoria that accompanies the successful completion of any task would be incomplete without the mention of the people who made it possible and whose encouragement and guidance have crowned our efforts with success.

We are indebted to the **Internal Guide, Ms. P.ANITHA,** Designation, Dept. of Computer Science & Engineering, TKR College of Engineering & Technology, for his/her support and guidance throughout our Thesis/Dissertation.

We are also indebted to the **Head of the Department, Dr. A. Suresh Rao,** Professor, Computer Science & Engineering, TKR College of Engineering & Technology, for his support and guidance throughout our Thesis/Dissertation.

We extend our deep sense of gratitude to the **Principal, Dr. D. V. Ravi Shankar,** TKR College of Engineering & Technology, for permitting us to undertake this Thesis/Dissertation.

Finally, we express our thanks to one and all that have helped us in successfully completing this Thesis/Dissertation. Furthermore, we would like to thank our family and friends for their moral support and encouragement.

By,
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CONTENTS

ABSTRACT

The main objective of the project is to help medium and small-scale entrepreneurs to develop and improve their business in an efficient manner by marketing their products and services through which we help them to do in a dedicated way.

Plan of action:

Our team is planning to make a website that helps entrepreneurs and start-ups in marketing their products and services in a better and attractive manner. Moreover, this problem statement is given by the Minister of the textile industry, so we have mainly thought of focussing on small and medium scale entrepreneurs, through which it helps them to keep their businesses online.

1. **Create a Template:**

   Creating a simple planning template that consists of modules of entrepreneurs, creating marketing statistics of every product based on the requirements, providing investors, and also mentoring facilities which help them in boosting their business.

2. **Use a Tool:**

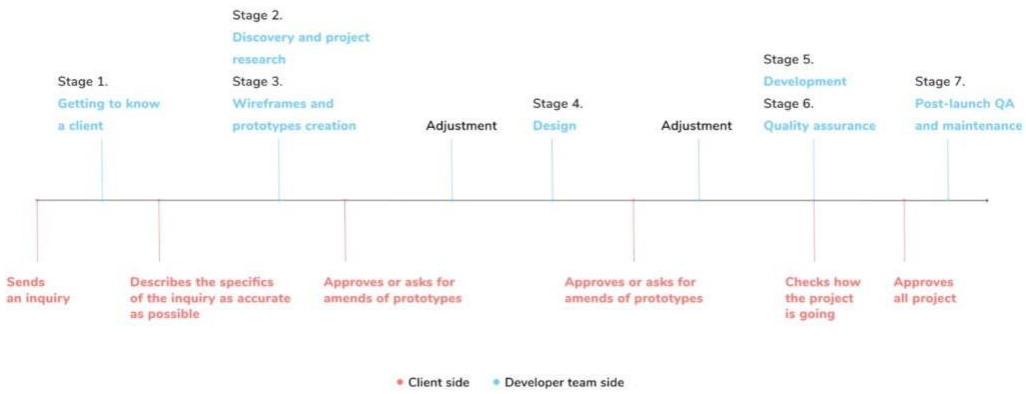
   The basic tools and technology we planned on for use in the project are: For the frontend, we use HTML, CSS, BOOTSTRAP, JS(Angular JS), and for the backend part, we used PHP with MYSQL, which helped us to program our model. We have also employed GitHub shared repository, which helped us to share and deploy the code.

3. How Our Team Works on One Platform:

We seek to learn everything about the tools which we use; which helps us a lot to know about the intricating fields such as frontend, backend, hosting, and managing the services, etc., and divide the work accordingly. We strive to work as a team and solve the problems raised by interacting with each other and to take assistance and guidance from our Project Guide, which makes our work more reliable and faster.

Methodology:

Methodology refers to the comprehensive actions of research in my internship report. Toachievetherequiredresultstoestablishtheobjective, some methods are used. This section will clarify the methods I used to do this project.



A typical workflow of an IT company

This was the general workflow of the project would be and this contains client meetings, creating models, deploying, testing, etc...

Key Parts and Benefits of the Report:

The project involved analyzing the design of a few applications to make the application more user-friendly. To do so, it was really important to keep the navigation from one screen to the other in an organized manner, and at the same time reducing the amount of time to search the uploaded files and add new files into the database the user needs to do. To make the application more accessible we are trying to build the application compatible with both mobile and desktop.

And coming to the benefits to the company was that the whole project was running in by hand itself and I am always there with the company members at the time of meeting and demo presentation and I also helped in making different outer projects to make it done and the links are mentioned above with URL.

LIST OF FIGURES

LIST OF SCREENS

Symbols & Abbreviations

HTML	Hypertext Markup Language
JS	JavaScript
PHP	Hypertext Preprocessor
SQL	Structured Query Language
SSL	Secure Sockets Layer
CSS	Cascading Style Sheets
cPanel	Control panel
UML	Unified Modeling Language
CGI	Computer-generated Imagery
VSCode	Visual Studio Code
DB	Database
GUI	Graphical User Interface
HTTPS	Hypertext Transfer Protocol Secure

CHAPTER 1
INTRODUCTION

The main objective of the project is to help medium and small-scale entrepreneurs to develop and improve their business in an efficient manner by marketing their products and services through which we help them to do in a dedicated way.

1.1 Motivation:

The student industrial work experience scheme popularly called Hackathon/ Project Development program by TKR students is a yearly program design by the institution in collaboration with the industries to allow students to gain practical working experience in their various fields of study or area of specialization. It is an effort to bridge the existing gap between classroom theories and practicals in engineering, management, and other professional program sat TKR College of Engineering&Technology.

This program is a planned and supervised training intervention based on stated and specific learning and career objectives and geared towards developing the occupational competencies of the participants. The aim is to make education more relevant and also to bridge the science-related disciplines in TKR College of Engineering &Technology.

1.2 Problem definition:

Digital Trend is a platform to support entrepreneurs to raise capital by backing them up throughout their entrepreneurial journey.

It will help them to develop their product/ideas into a marketable product with the help of mentors. It also provides an opportunity for entrepreneurs to advertise their products and services on various business platforms through marketing.

Digital Trend is a platform to support entrepreneurs to raise capital by backing them up throughout their entrepreneurial journey.

- It will help them to develop their product/ideas into a marketable product with the help of mentors.
- They will be provided with services of accounting & ROC compliancewiththehelpofadedicatedCAfirm, legal documentation with the help of a renowned law firm, writing info memos & financial model with the help of experts.
- The information flow and processes will be managed through our website so that the start-up is ready for due diligence as and when it wants to approach the Investors.
- With a set of quality-conscious investors, we will be able to help the entrepreneurs to raise the growth capital.

We started working on this project as a team to build a fully functional website that brings Entrepreneurs, Mentor, and Investors into a single platform to share and invest in their business ideas. Additionally, entrepreneurs are provided with marketing services through which they can advertise their products on various industry platforms.

The application involves a phase in which the entrepreneur updates the basic details and required papers regarding his/her business idea into the website and then, both Mentor and admin

canviewthedetailsandsuggestsInvestorsregardingtheprojectwithrequired details and the website plays a key role in handling and maintaining things.

1.3Limitations of the existing system:

In the presently existing system, there is only one option to sell the products and or marketize the existing project or service but the website which we build contains some extra features like mentorships' providing investors. And this is mostly helpful for those who are new and need support to increase their business.

1.4 Proposed system:

In this system, we have been trying to build and fully functional website which brings Entrepreneur, Mentor, and Investor into a single platform to share and invest in their businesses ideas. The entrepreneurs can also make use of the marketing services provided in the application.

The application involves a phase in which the entrepreneur updates the basic details and required papers regarding his/her business idea into the website and then, both Mentor and Admin can view the details and suggests Investors regarding the project with required details and the website plays a key role in handling and maintaining things.

This contains different modules for different users such as entrepreneur, Mentor, Investor, and Admin.

Entrepreneur Profile:

- Marketing Products:

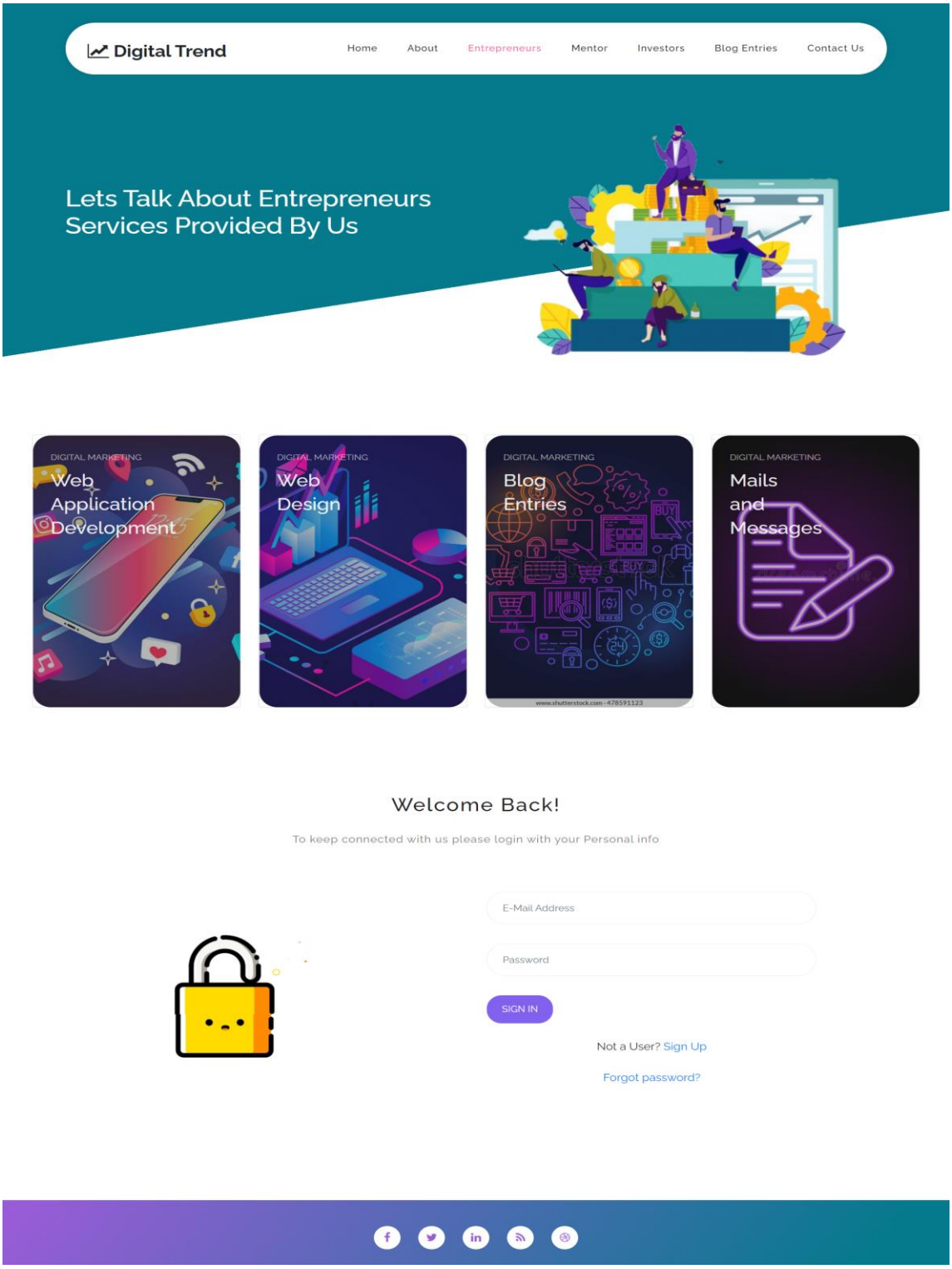


Figure 1.1 Marketing Products

- Entrepreneur's Dashboard:

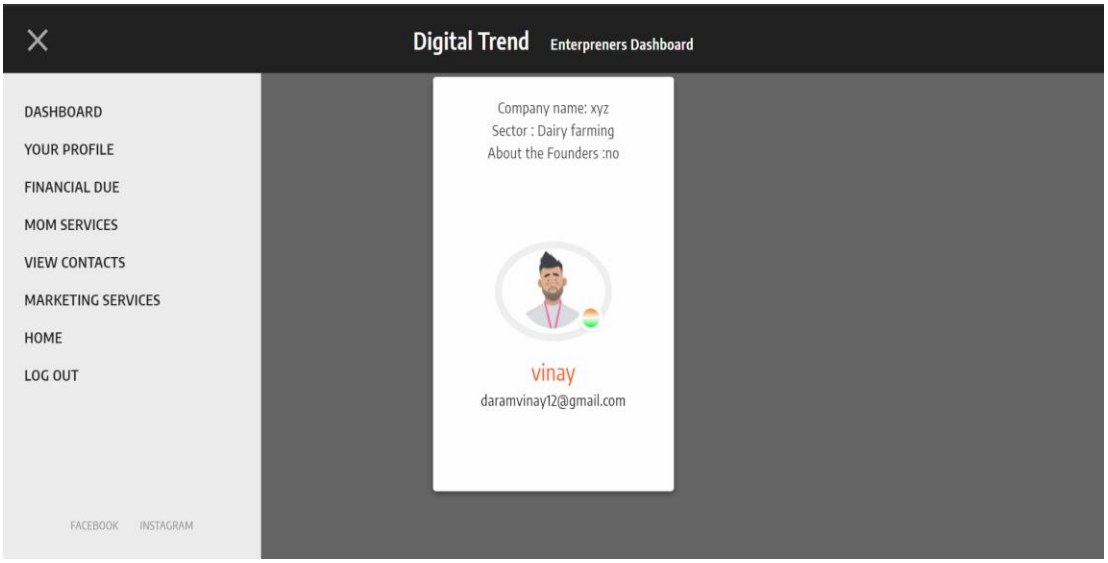


Figure 1.2 Entrepreneur's Dashboard

- Admin Profile:

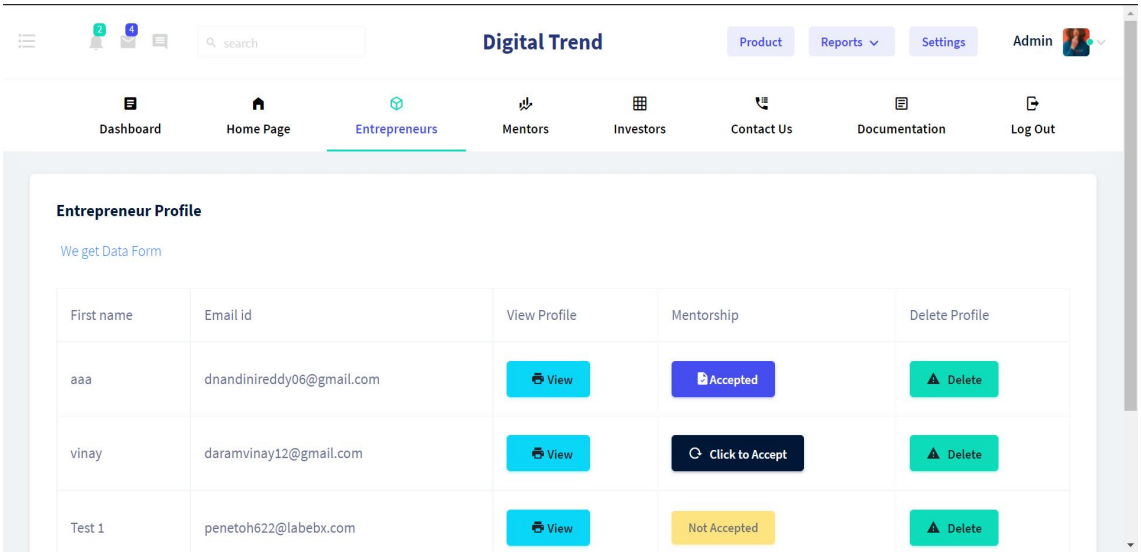


Figure 1.3 Admin Profile

- Entrepreneur's Update Profile Pannel:

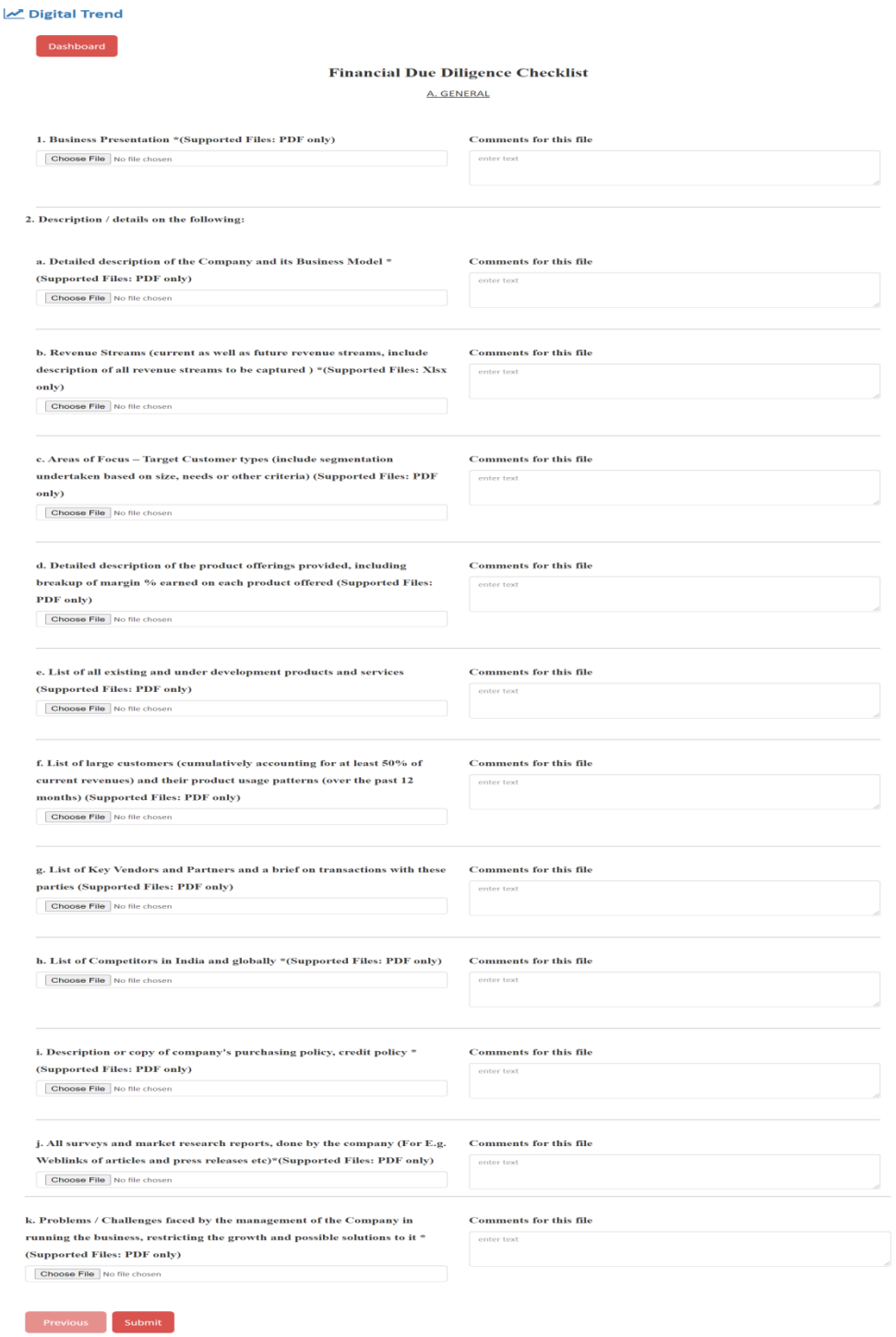


Figure 1.4 Entrepreneur's Update Profile Pannel

CHAPTER 2

LITERATURE SURVEY

In India, medium entrepreneurs contribute to nearly 8% of the country's GDP, around 45% of the manufacturing output, and approximately 40% of the country's exports. This results in referring to them as the 'Backbone of the country. Our application paves a way to help investors and entrepreneurs by converging them onto a single platform with proper guidance skilled expertise.

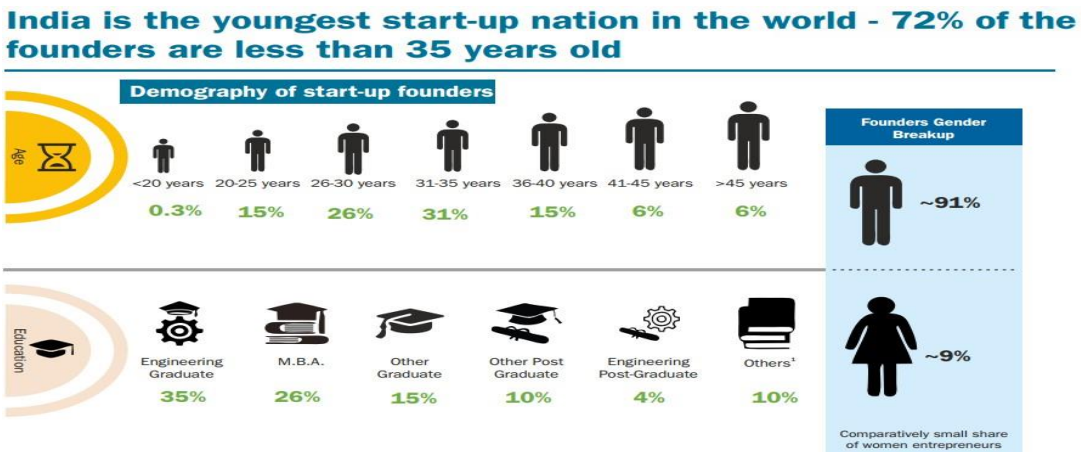


Figure 2.1 Percentage of Increase of Entrepreneur in India

Applications like these encourage entrepreneurs who form an important sector in the Indian economy and have contributed immensely to the country's socio-economic development. It not only generates employment opportunities but also works hand-in-hand towards the development of the nation's backward and rural areas. According to the annual report by the Government(2018-19), there are around 6,08,41,245 MSMEs in India.

FEASIBILITY STUDY:

A feasibility study is an analysis that takes all of a project's relevant factors into account—includingLegalFeasibility, EconomicalFeasibility, TechnicalFeasibility, OperationalFeasibility, SchedulingFeasibilitytoascertain the likelihood of completing the project successfully. Project managers use feasibility studies to understand the pros and cons of undertaking a project before they invest a lot of time and funds into it.

- **Legal Feasibility:**

  Legal Feasibility is an analysis performed to understand if the proposed plan conforms to the legal and ethical requirements. Since we store all the confidential data of the entrepreneurs, we would take care of their complicated data through website security and sharing of data to others (mentors and investors) with all prior conditions. And these security measures come in handy with verification mails, SSL certificates to the website, restricting and tracking of confidential data through Mail id, etc.

- **Economic feasibility:**

  An Economic feasibility study involves a cost-benefit analysis to identify how well, or how poorly, a project will be concluded. For now, the cost of making the website was not much with basic cloud storage and SSL certificate from GoDaddy but in the upcoming date for storing the Entrepreneursdata with them and sending OTP'Sand Mails

services may cost the higher it increases exponentially with the increase of no of entrepreneurs joining the company groups.

- **Technical Feasibility:**

Technical feasibility is the process of validating the technical resources and capabilities to convert the ideas into working systems. This process was almost done and this process goes with the no of people actively participating in the applications, updating software and increasing security measures, handling web traffic, etc...

- **Operational Feasibility:**

Operational feasibility is performed to understand well the proposed system solves the problems. And this feasibility was completely done by me along with my team taking suggestions and requirements from the guide and updating and presenting our work at regular intervals of time to reach client's requirements efficiently.

- **Scheduling Feasibility:**

Completing a project on time is very important from an an investor's perspective. Scheduling feasibility is a measure of how reasonable the project duration is. If the project takes longer than estimated, investors will have to bear extra costs. And coming to our project the deadline of our project wasalmost3-4monthssoit'sinthefinalstageoftestingandconnecting all the requirements and access to the admin panel where he can manage(add, update and delete)in the way he/she needs.

CHAPTER 3

REQUIREMENTS ANALYSIS

Requirement Specification:

The project involved analyzing the design of a few applications to make the application more user-friendly. In achieving this, it was really important to keep the navigations from one screen to the other well-ordered and at the same time reducing the amount of time to search the uploaded files and add new files into the database the user needs to do. To make the application more accessible, we are trying to build the application both compatible for mobile and desktop.

Functional Requirements:

The functional requirements include Framework and Languages we generally use, some open source administration tools, some web hosting control panel, domain registrar certificates, source-code editor, etc...

Frameworks and Languages:

There is a variety of coding languages developers choose from, and most use the language they are most comfortable with for me

1. HTML (Hypertext Markup Language):

   - HTML makes up the layout and structure of your website.
   - This language is dynamic and allows you to create a beautiful website using less code.
   - HTML is used to create a starting point for the website and is what most of your static pages start from.

2. CSS(Cascading Style Sheets):

   - CSS is the language developers can use to style a website.
   - The style sheet language describes how your website is presented and its layout
   - CSS is used hand in hand with HTML to add colors, backgrounds, layouts, font sizes, and more.
   - CSS a core technology web developers use to design websites.

3. JavaScript(JS):

   - JavaScript is used in many aspects of web development.
   - Web developers use this language to add interactive elements to their websites
   - User engagement is important to your business, and your web developer should be incorporating JavaScript elements in your design
   -

4. SQL(Structured Query Language):

   - SQL is a database query language that is used when your website is computing large amounts of data.
   - Using SQL allows you to gather data from different databases and use it to cater your website to your target audience.

This language is not used alone: instead, it paired with others to get the most out of your customer database and website development

5. PHP(Hypertext Preprocessor):

- PHP is often used on data-heavy websites or for app development
- This is an open-source language that can be easily modified to meet the needs of your business or website.
- Large websites like WordPress and Facebook use PHP to manage and process their data.

Open Source Administration Tools:

phpMyAdmin is a free and open-source administration tool for MySQL and MariaDB. As a portable web application written primarily in PHP, it has become one of the most popular MySQL administration tools, especially for web hosting services.

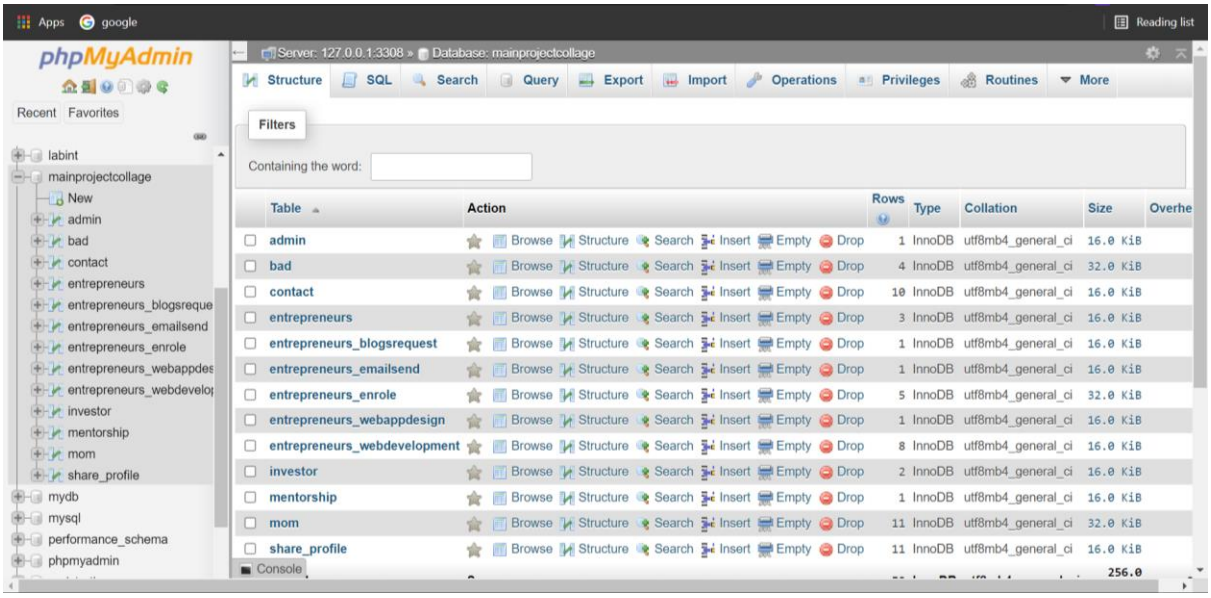


Figure 3.1phpMyAdmin Open-Source Administration Tool

Github:-

GitHub is a popularly used software that is typically used for version control. It is helpful when multiple people are simultaneously working on a project. For example, a software development team wants to build a website and everyone has to update their codes concurrently while working together on the project. In this case, Github helps them to form a centralized repository where everyone in the project team can upload, edit, and manage the code files in a single place.

GitHub has various advantages, but many people often have a doubt as to why not use dropbox or any cloud-based system? Let me take the same example forward to answer this doubt. Consider a situation where more than two software developers are working on the same file and want to update it simultaneously. Unfortunately, the person who saves the file first will get precedence over the others. Whereas in Github, this is not the case. Github document the changes and reflect them in an organized manner to avoid any trouble between any of the files uploaded. Therefore, using GitHub's centralized repository, avoids all the confusion, and working on the same code becomes very effortless.

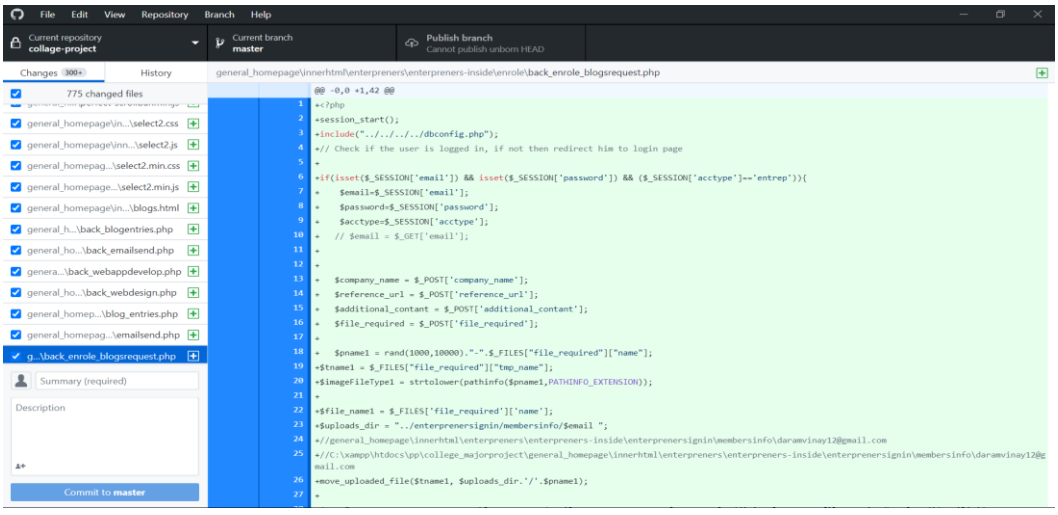


Figure 3.2 Github repositories

Source-Code Editor:

We generally use Visual Studio Code(vscode) a free source code editor made by Microsoft for Windows, Linux, and macOS. And coming to the server-side there is an inbuilt cPanel code editor which we generally use.

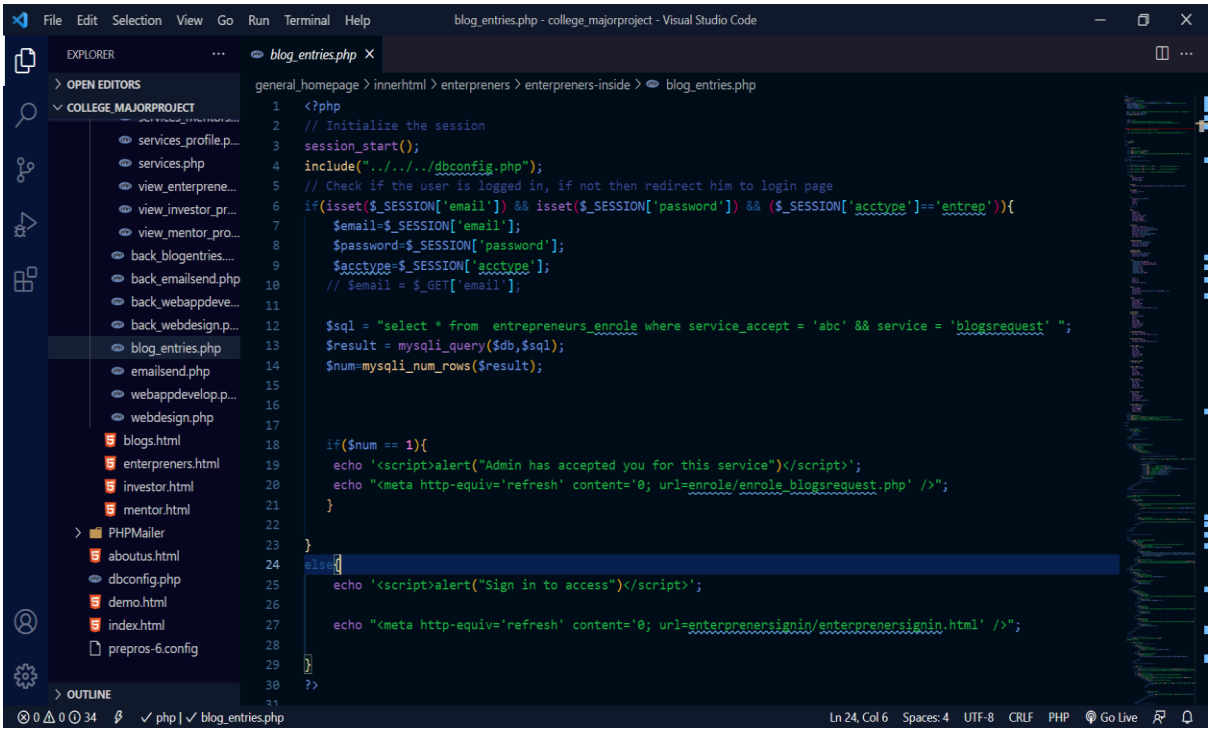


Figure 3.3 VS Code for PHP development

Non-Functional Requirements:

Non-Functional requirements are quality attributes that describe the way your product should function. This mostly depends on the client and the company executive.

- **Use a defined classification** and classify them into three groups: operation, revision, and transition. In this way, the stakeholders and the development team build a consistent language for discussing nonfunctional needs. And this process goes on in

regular intervals of time where they the client and act according to his requirements and need to build a desired outcome of the project.

- **To achieve high reliability**, our team should eradicate all bugs and quality errors that may influence code safety and issues with system components. This process is further carried out by the testing team who ensures the product is bug-free.

- **Usage of automated testing tools** such as Selenium, TestComplete, and Appium. These tools will help to check your product performance which results in hassle-free performance and reveal more non-functional requirements.

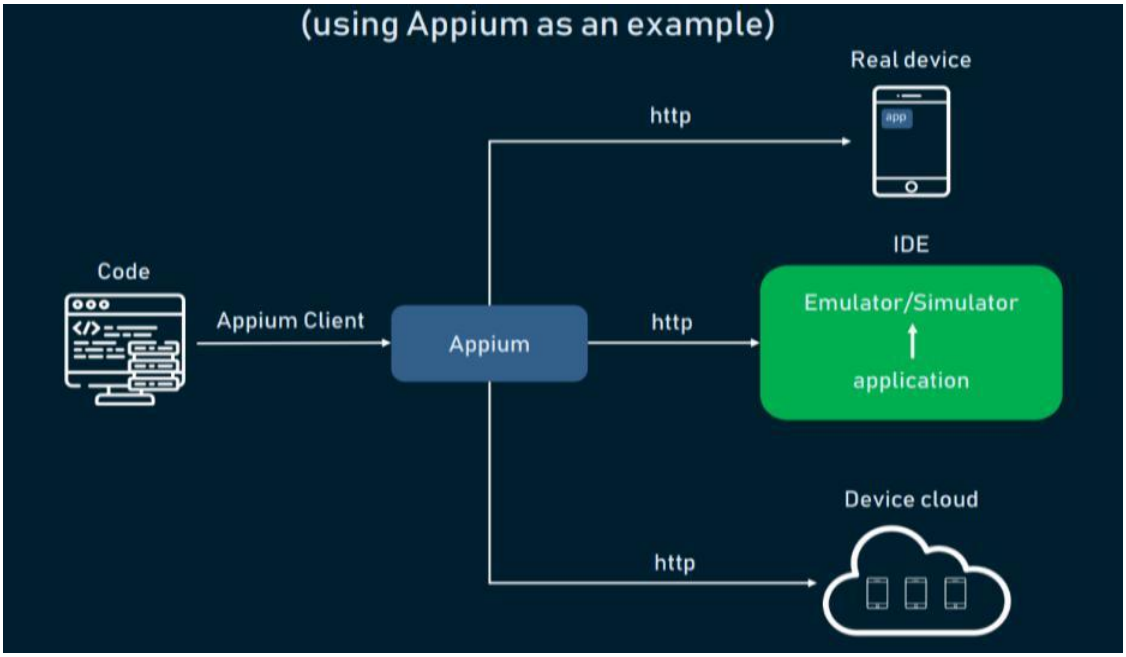


Figure 3.4 Automated Testing Works

CHAPTER 4

DESIGN

DFDs & UML Diagrams

UML (Unified Modeling Language) is a standard vernacular for choosing, envisioning, making, and specifying the collectibles of programming structures. UML is a pictorial vernacular used to make programming blueprints. It is in like way used to exhibit non-programming structures similarly like process stream in a gathering unit and so forth.

UML is not a programming vernacular yet rather instruments can be utilized to make code in different tongues utilizing UML graphs. UML has an incite relationship with question composed examination and outline. UML expect a fundamental part in portraying trade viewpoints of a structure.

It is important to distinguish between the UML model and the set of diagrams of a system. A diagram is a partial graphic representation of a system's model. The set of diagrams need not completely cover the model and deleting a diagram does not change the model. The model may also contain documentation that drives the model elements and diagrams (such as written use cases).

System Model:

System modeling is the process of developing abstract **models** of a **system**, with each **model** presenting a different view or perspective of that system. It is about representing a **system** using some kind of graphical notation, which is now almost always based on notations in the Unified **Modelling** Language (UML).

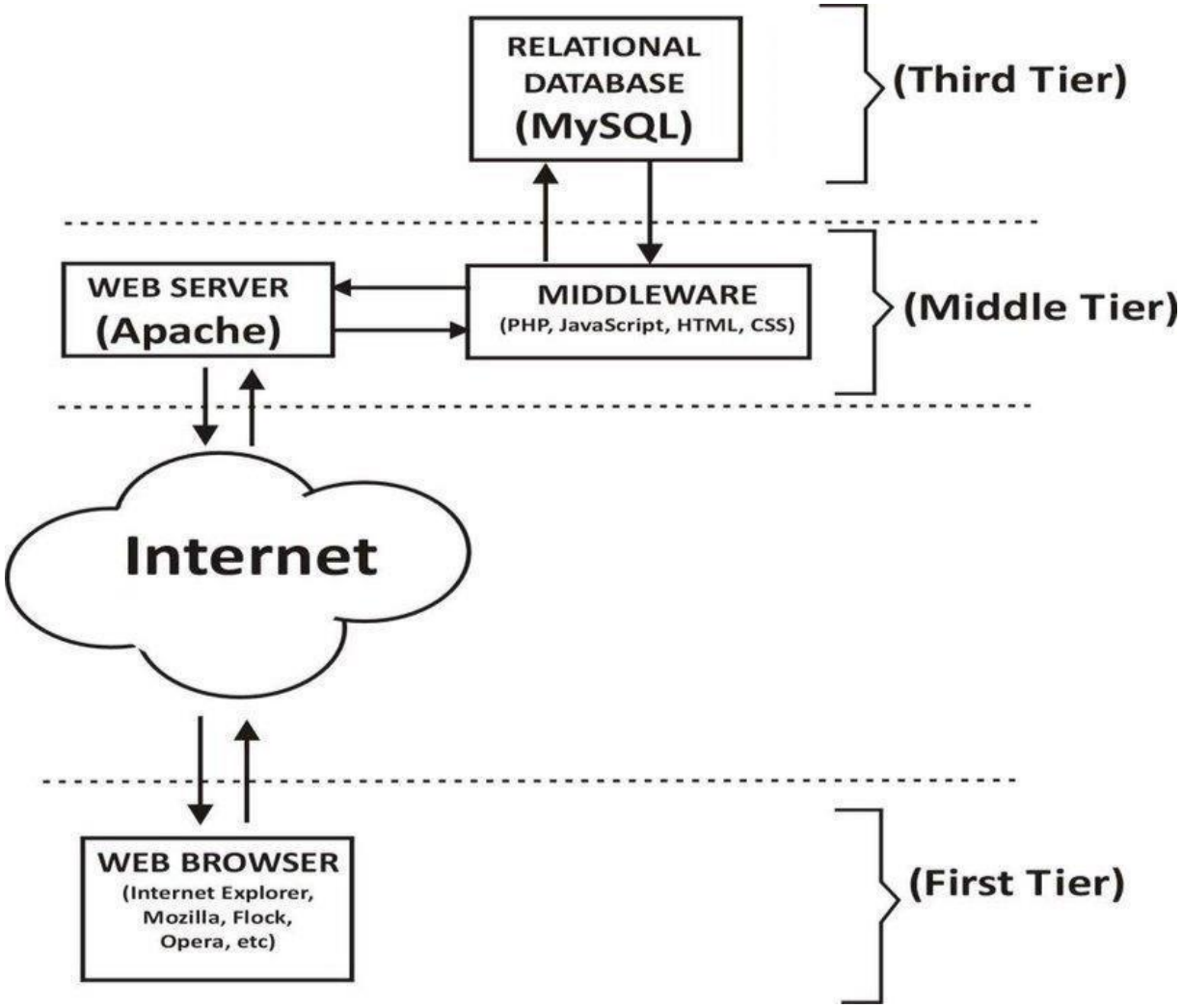


Figure 4.1 System Model of a Web Application Architecture

Use case Diagram:

The use case graph is for demonstrating the direction of the structure. This chart contains the course of action of use cases, performing pros, and their relationship. This chart might be utilized to address the static perspective of the structure

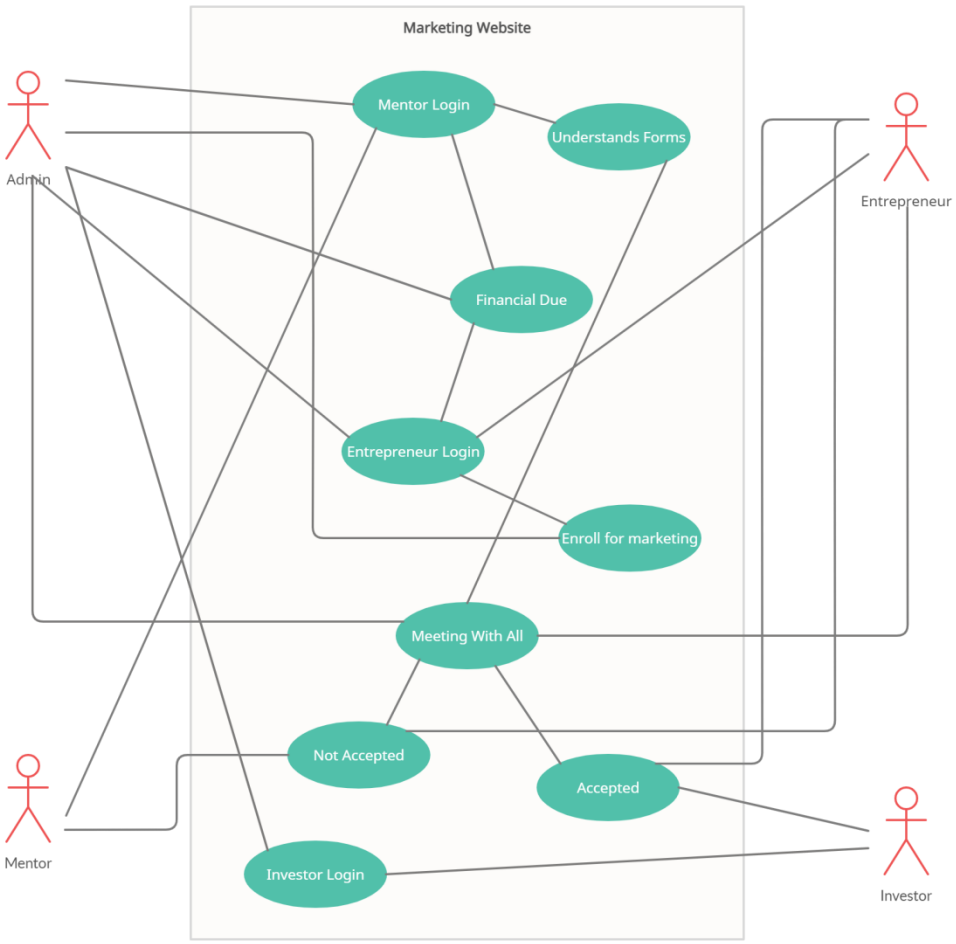


Figure 4.2 UseCase Diagram of the Website

Sample Data:

In general, these were the 3 modules called Entrepreneur module, Mentor module, inverter module which I work completely worked, and those data are been connected with the admin panel where he can manage the data. And the following where the images you see where the sample data which we use for testing purposes:

Entrepreneur module:

This contains all the sample data of the Entrepreneurs used for testing the module

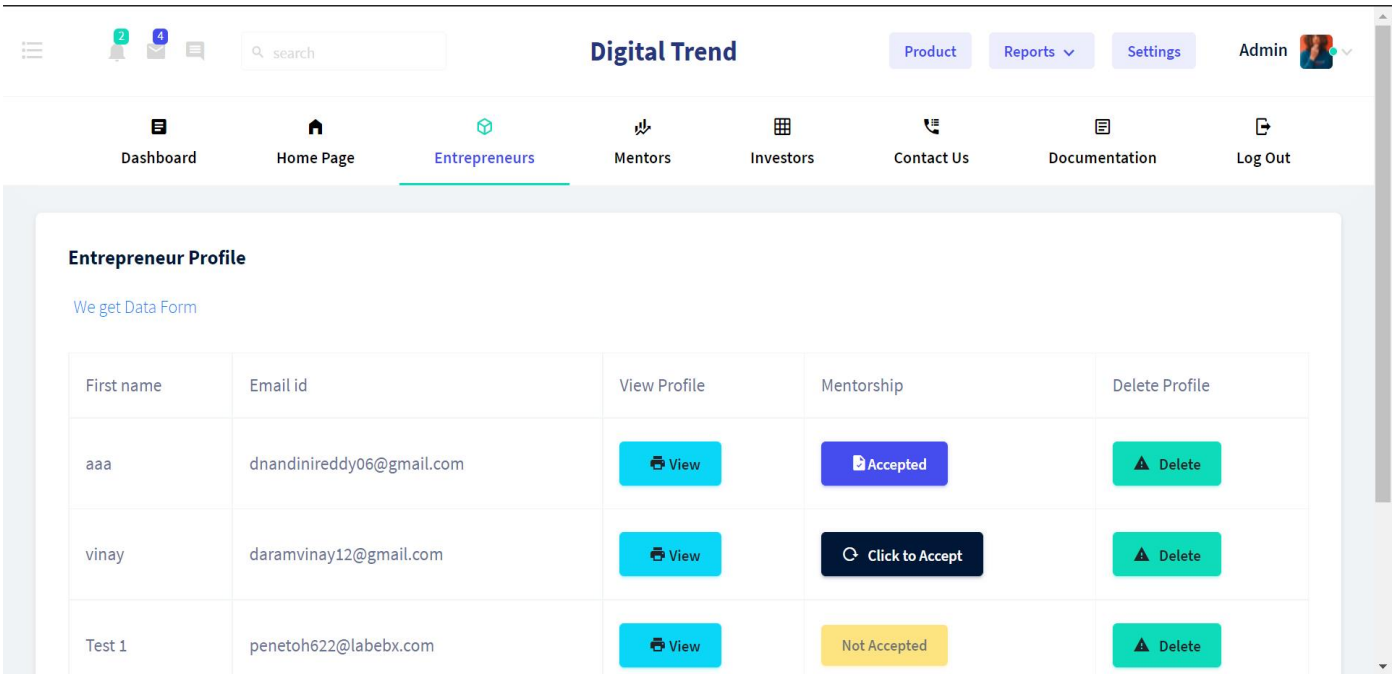


Figure 4.3 Entrepreneurs Profile

Mentor module:

This contains all the sample data of the Mentors used for testing the module.

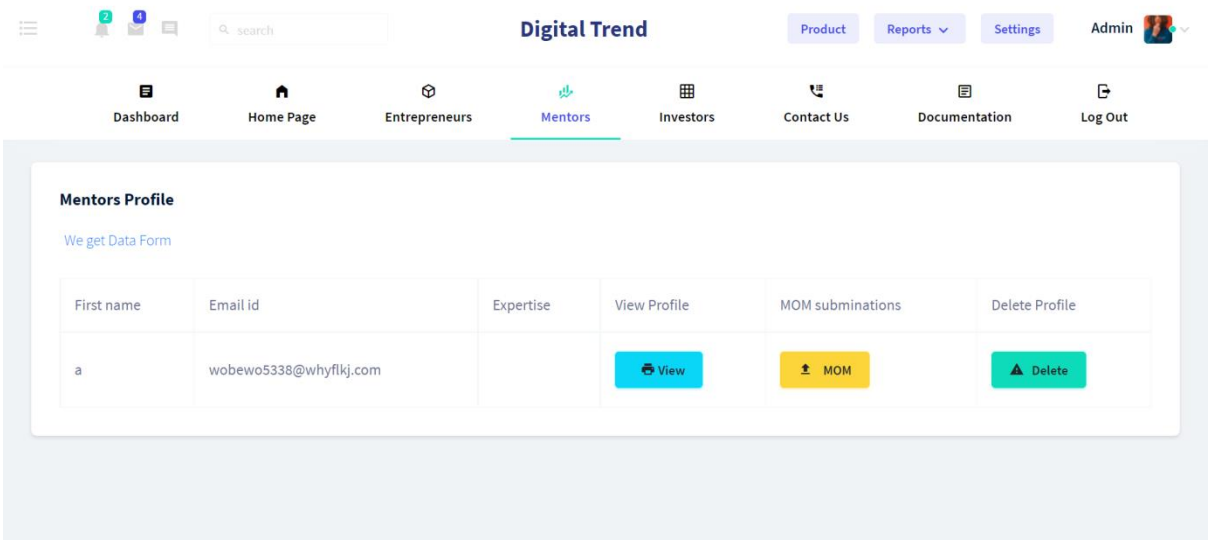


Figure 4.4 Mentors Profile

Marketing module:

The platform provides marketing services for entrepreneurs where they are provided with various services which enable them to market their products throughout the industry by making use of advertisements. All the requests of the entrepreneurs are stored and processed for further use.

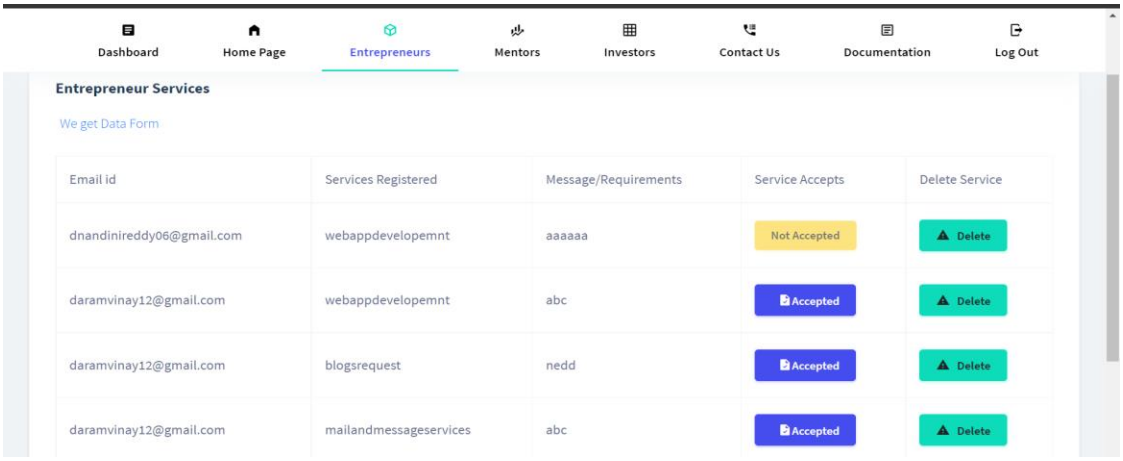


Figure 4.5 Marketing Profile

Investors Module:

This contains all the sample data of the Inverters used for testing the module.

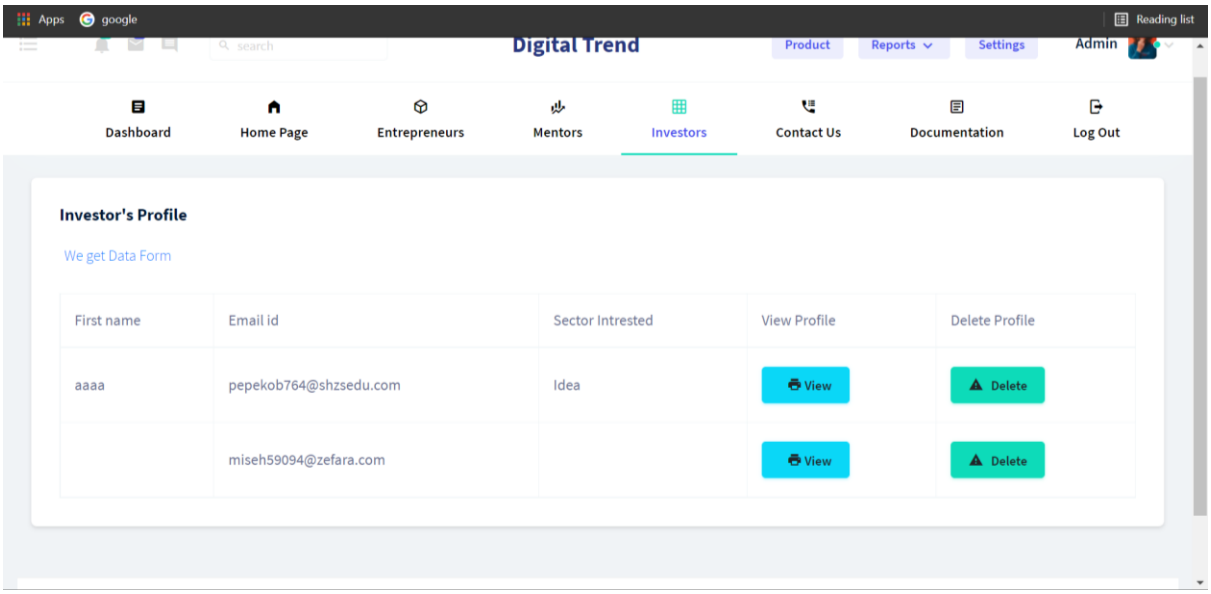


Figure 4.6 Investor Module

Contact Us :

This was the sample data of the users who try to fill the contact us form

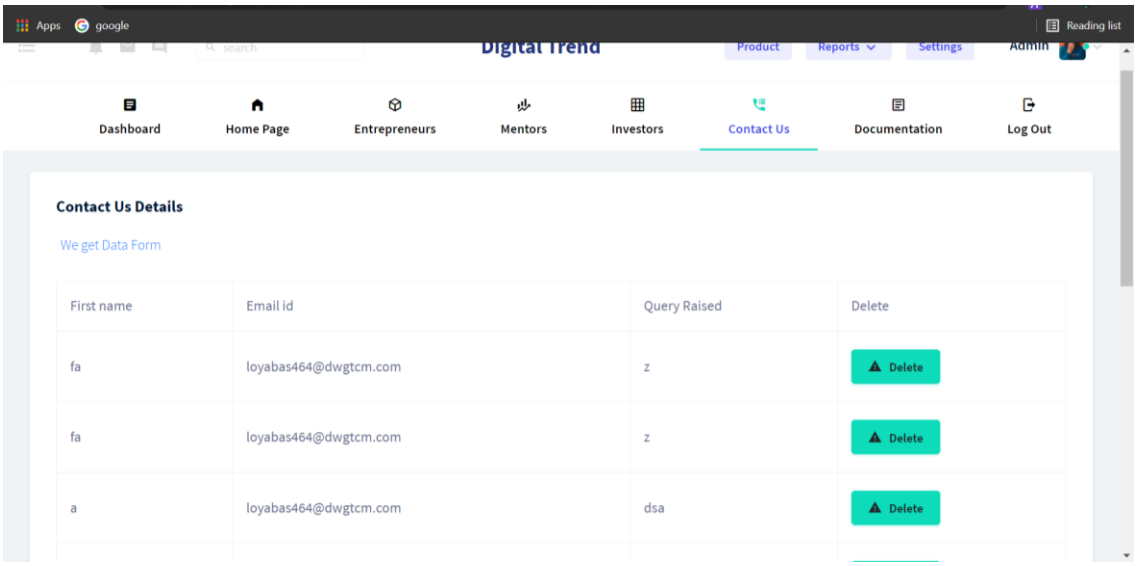


Figure 4.7 Contact Us details

CHAPTER 5

CODING

Presenting pseudo code is a key part of any project and this helps a person to know clearly about the working functionality of the application in a very easy and perfect manner.

Since it's a whole website and it's impossible to present the whole application code so I am only sharing some of the core modules code I think this would help to understand the functionality of the application.

And the images contain the form creation code both front and backend which will help us to understand.

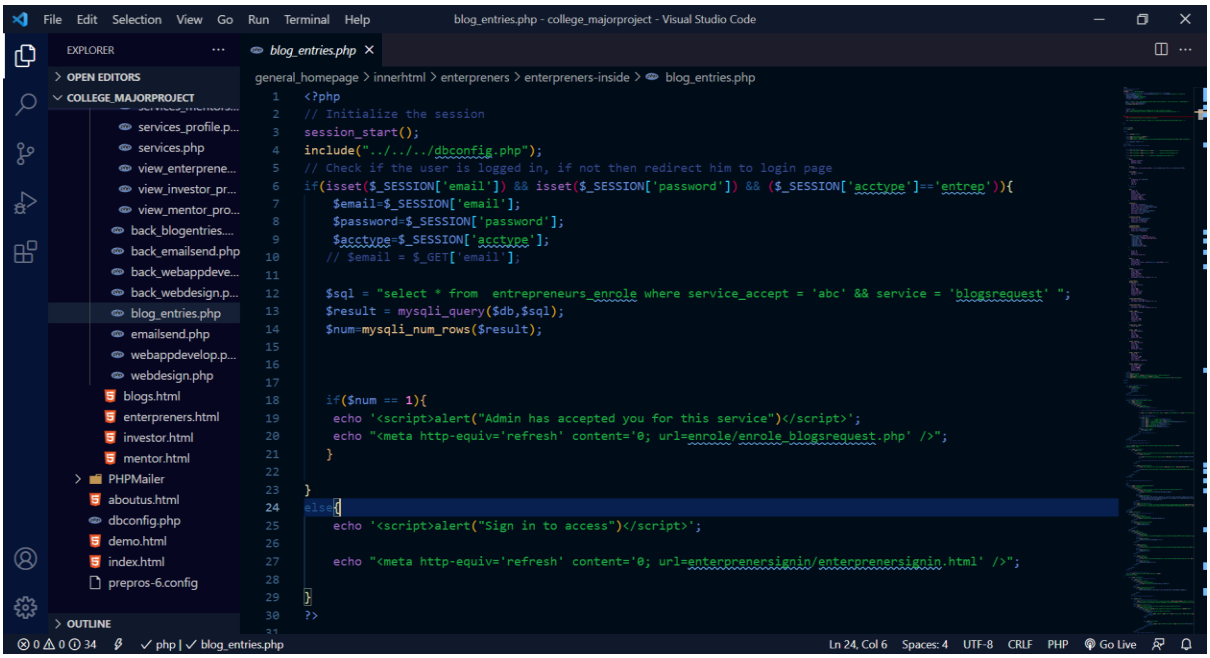


Figure 5.1 Source Code(1)

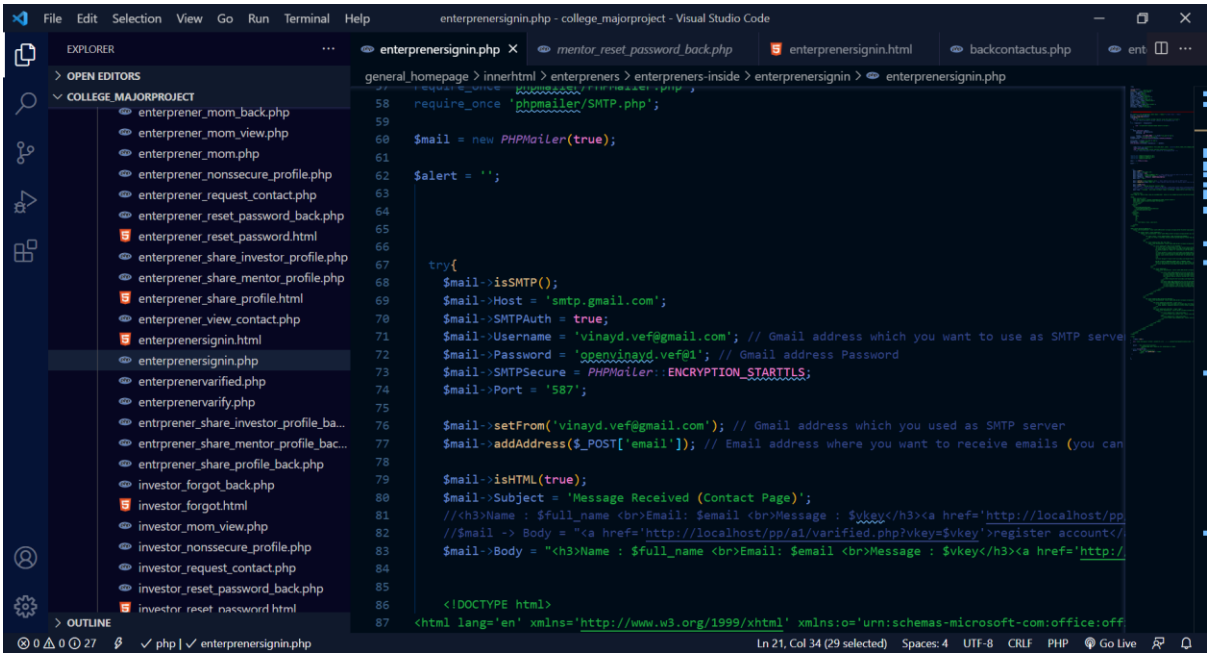


Figure 5.2 Source Code(2)

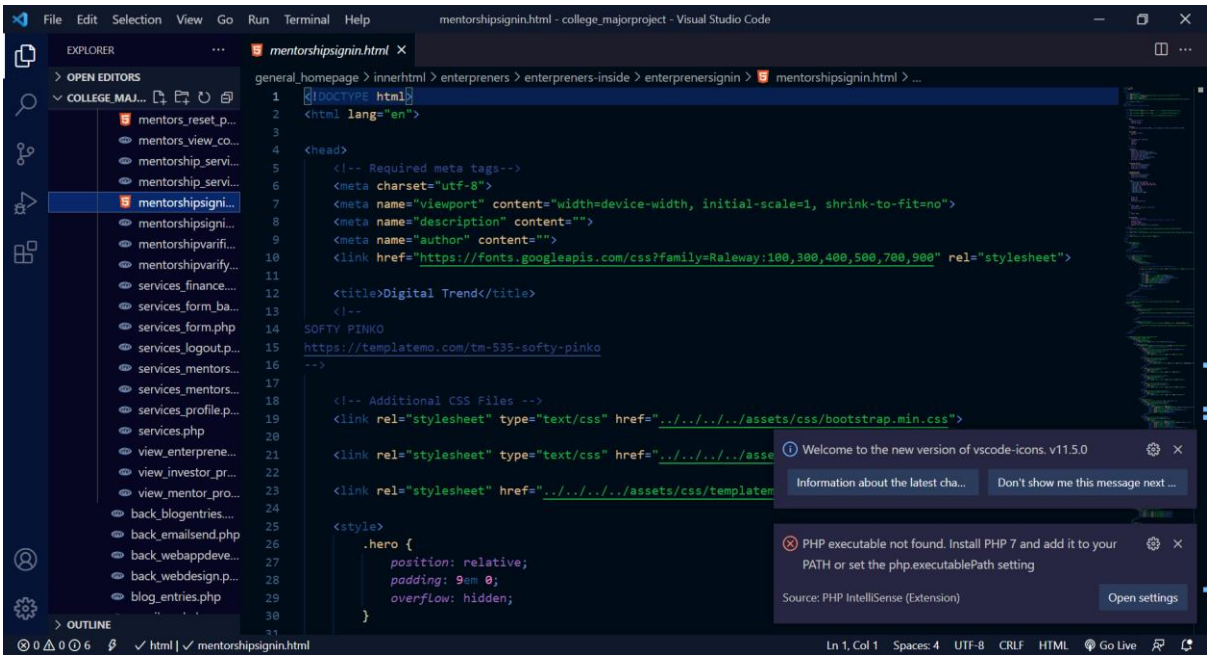


Figure 5.3 Source Code(3)

CHAPTER 6

IMPLEMENTATION & RESULTS

The development cycle takes you through one or all of these steps:

- **Discovery**: Find a service and support the necessary interface.

- **Create or transform**: You either create your service or transform your application to comply with a discovered interface.

- **Build**: The build phase of the lifecycle includes the development and testing of the Web service implementation, the definition of the service interface description, and the definition of the service implementation description. Web Service implementation can be provided by creating new Web services, transforming existing applications into Web services, and composing new Web services from other Web services and applications.

- **Deploy**: The deploy phase includes the publishing of the service interface and service implementation definition to a service requestor or service registry.

- **Test**: A UDDI registry can be used to publish and test the service. A private UDDI registry can be used for testing.

Explanation of Key functions:

When people browse a website, they want easy navigation, attractive design, and relevant content. As people spend less time online, however, businesses must leverage the website features users value most to hold audiences' attention. And they come with the key features

1. **A good website should be easy to navigate** And the website which we built was as perfect built so that they can easily go from one page to another to make the website fast and easy.

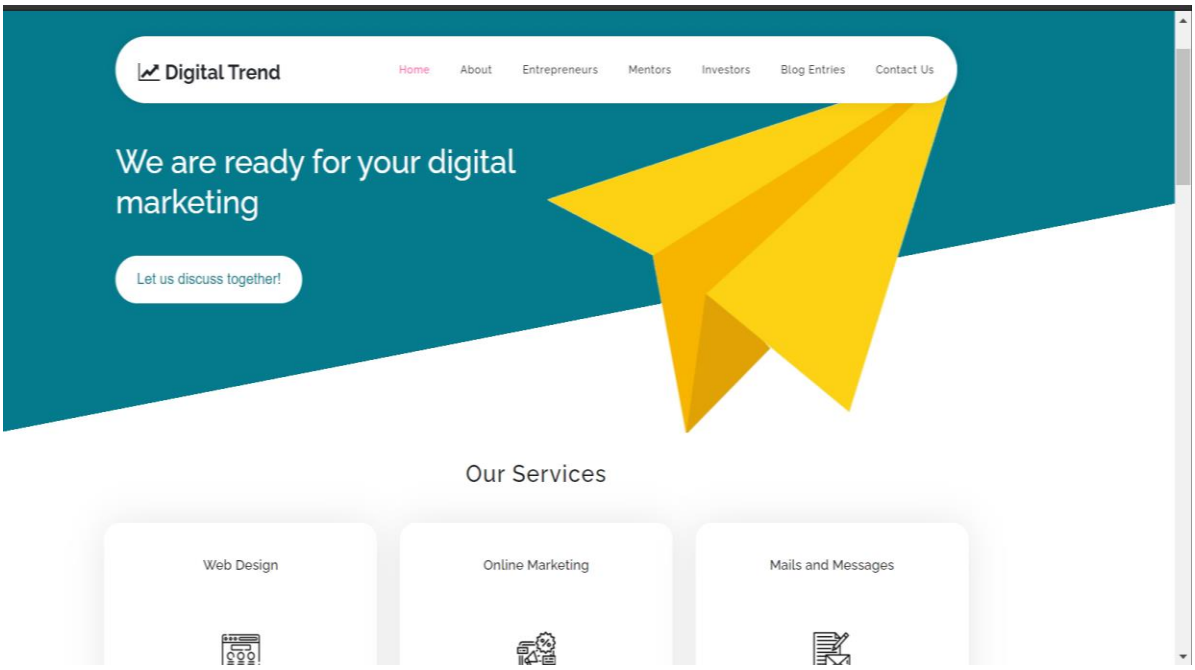


Figure 6.1 Home Page of a web

2. **Have a clear indication of where the user is:** And the website which we built was as perfect which says where are you exactly int the website.

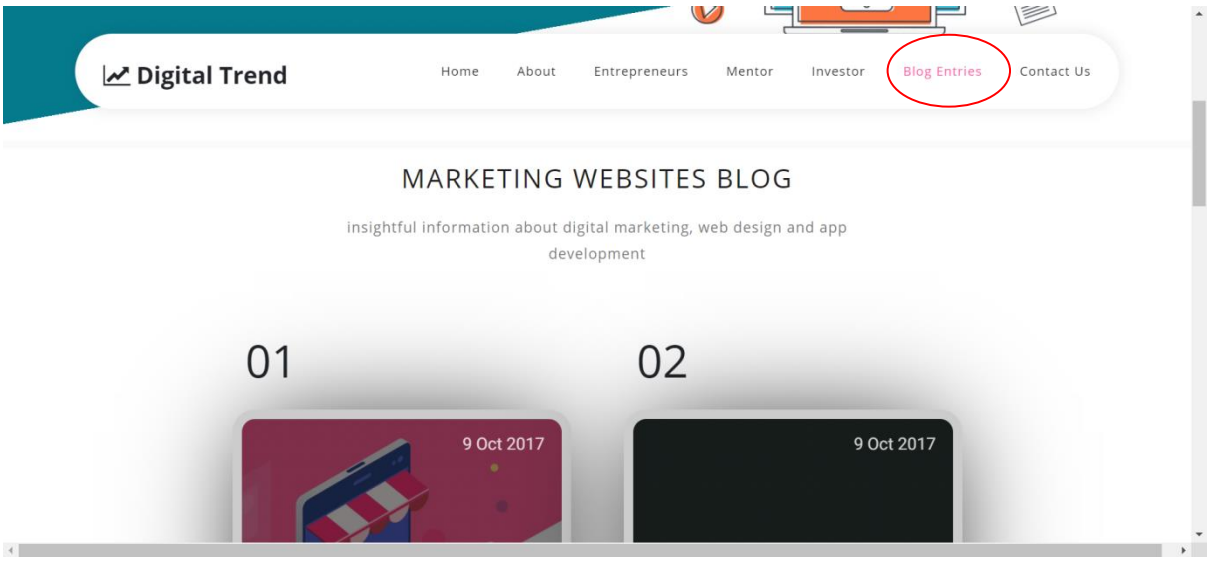


Figure 6.2 Navigation Bar

3. **Provides a reliable way for the users**: Entrepreneurs can access the application without any difficulties as the application is built user-friendly and easily understandable. Without having any hardships in using the application, users can navigate through the website very freely.

Figure 6.3 Comparable to all platforms

Method of Implementation:

Implementation is the process of building the web according to its design. A web implementor creates hypertext markup language (HTML), Common Gateway Interface (CGI) programs, and/or Java scripts and/or applets. And the perfect Implementation of all method's results in the following things:

1. User Interface accessibility:

The application is built in a way such that every user such as entrepreneurs, mentors, and investors are provided with their respective dashboards which are embedded with their functionalities instead of having a single platform for every role in the system. Navigation throughout the application is very swift as the platform provides high functionality. The application can be accessed from various devices such as desktops, mobiles, tablets without the loss of any functionalities. The features of the application are similar irrespective of the device used.

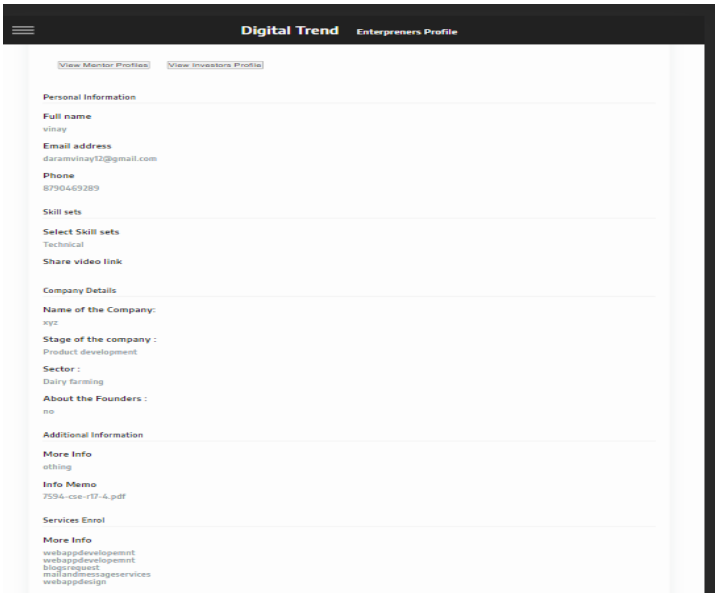


Figure 6.4 User Friendly Dashboard

2. Forms :

Forms were the main part of the application in which we use these forms in many places for registrations of Entrepreneurs, mentors, Investors, contact us forms and the main important part of the forms where Entrepreneurs need to fill their business places and some more important papers which help them to get attract the investors and some of the forms are been share. Similarly, there were more than 25 forms in the same manner.

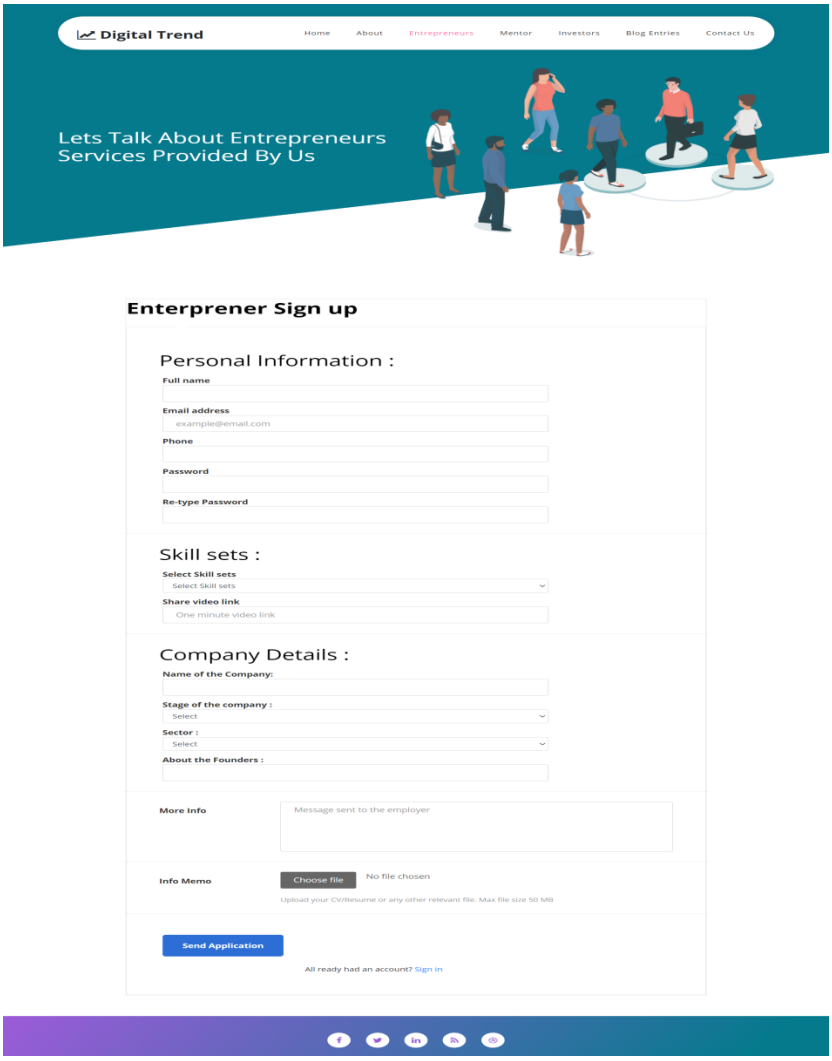


Figure 6.5 Sign up form

3. Output Screens:

The whole website can be considered as an output screen but since we are much focused on the entrepreneur's Financial due forms we consider them as output in which there are almost 25 output screens in which they then view the forms which he filled and can also open them.

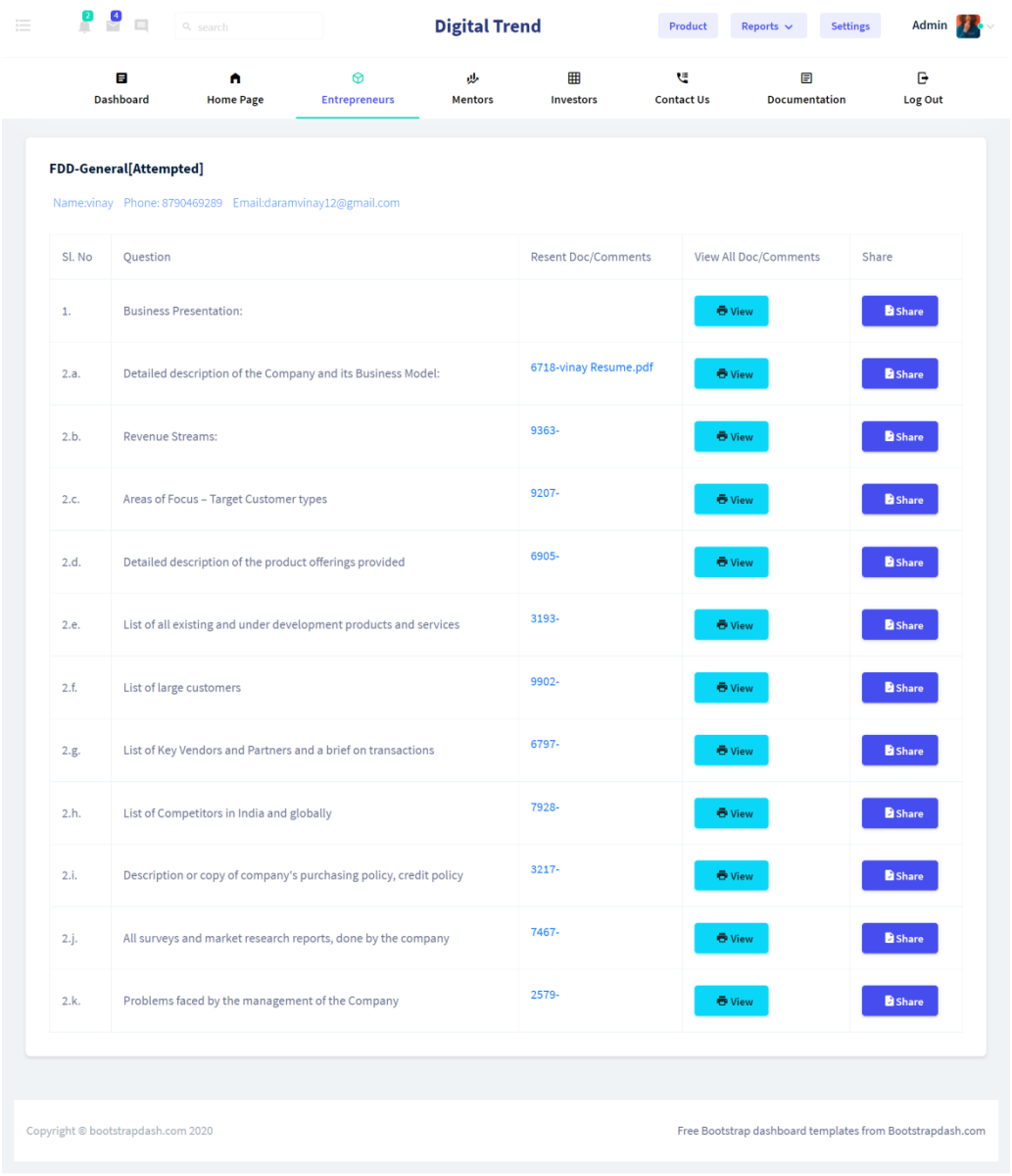


Figure 6.6 Financial Due output screen

4. Result Analysis:

In this face of result analysis, the forms of the enterprises are been analyzed by the mentors and held a meeting on them to do some changes or add new things to get a better output and the mom of the meet is been share by the mentor to the entrepreneur and the admin through the mail.

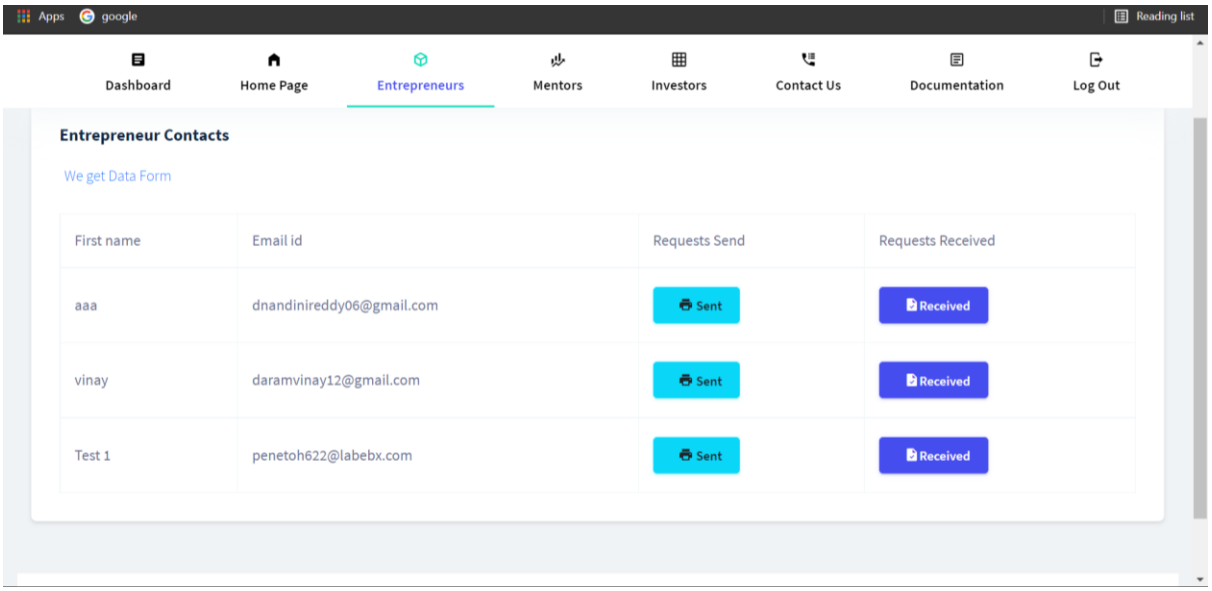


Figure 6.7 Contact request Result

CHAPTER 7

TESTING & VALIDATION

Web testing is a software testing practice to test websites or web applications for potential bugs. It's a complete testing of web-based applications before making them live. A web-based system needs to be checked completely from end-to-end before it goes live for end users. By performing website testing, an organization can make sure that the web-based system is functioning properly and can be accepted by real-time users. The UI design and functionality are the captains of website testing.

1. Design of Test Cases and Scenarios :

- Functionality Testing: Test for – all the links in web pages, database connection, forms used for submitting or getting information from the user in the web pages, Cookie testing, etc. And these Functionality Testing was successfully made happen and the web app is free from functional test cases.

- Usability Testing: Usability testing is the process by which the human-computer interaction characteristics of a system are measured, and weaknesses are identified for correction. This testing includes user experiences with the application like color, placement of buttons, etc... And this all is done with prior advice of the client and his requirements.

- Interface Testing: In web testing, the server-side interface should be tested. This can be done by verifying that the communication is done properly. The compatibility of the server with software,

hardware, network, and database should be tested. Web server and application server interface. Application server and Database server interface.

- Scenario Testing: Scenario Testing in software testing is a method in which actual scenarios are used for testing the software application instead of test cases. The purpose of scenario testing is to test end-to-end scenarios for a specific complex problem of the software. Scenarios help in an easier way to test and evaluate end to end complicated problems.

2. Validation:

Validation of the website was a basic thing in which we generally validate the website with an SSL certificate, mail verification/validation, mobile number verification, etc., which makes the site more protective.

Chapter 8

CONCLUSION

The application involves a phase in which the entrepreneur updates the basic details and required papers regarding his/her business idea into the website and then, both Mentor and Admin can view the details and suggests Investors regarding the project with required details and the website plays a key role in handling and maintaining things.

Considering the future scope, if the website reaches a greater capacity, then the requirement of the website will also increase, such as the website will not handle the heavy web traffic and needs to be updated. Moreover, if the number of users increased in a greater phase, there will be a requirement for the immense amount of cloud storage that needs to be taken care of. Additionally, there would be a need to add some advanced security measures to make the site more proactive and powerful.

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