HIRIC - A new freelancing platform for Bangladesh

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APPROVAL

This Project titled "**HIRIC - A new freelancing platform for Bangladesh**", submitted by **Md.Rayhan Kabir**, **Md.Kamrul Hasan Roni , Md.Muiduzzaman Mahim and Md.Shahariar Rahman** to the Department of Computer Science and Engineering, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 18-01-2022.

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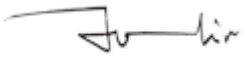

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DECLARATION

We hereby declare that, this project has been done by us under the supervision of **S.M. Aminul Haque, Associate Professor, Department of CSE** Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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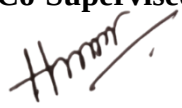

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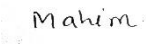

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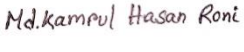

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ABSTRACT

Freelancing marketplace is the platform where people can work as a freelancer or as a project based service provider. “HIRIC- A new freelancing platform only for Bangladesh” is a web based project where freelancing and outsourcing can be done. Our main motivation is that Bangladeshi students can’t get a chance to work as a freelancer internationally easily and also face payment problems. That’s why we are trying to make a platform for Bangladeshi Freelancers to make them confident and expert on their work field. This platform also reduces unemployment problems. There are 3 main parts in this project like super admin, client dashboard, freelancer dashboard. Super admin will maintain the whole website like manage users activities, site update etc. Client dashboard will be used to manage all client’s activities like post project, project management, payment, costing etc. Freelancer dashboard will be used to manage the freelancer’s work like bit the post, search job or project, get payment, e-wallet etc. In future, we’ll also try to update our security system, user interface and live chatting system. Then we will launch this platform publicly. We hope that this platform will be a more helpful and productive platform for Bangladesh.

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CHAPTER 1

Introduction

1.1 Introduction:

We have a massive population in our country. Over the past few years we had issues like less educational scales but now the issue is kind of solved. And it creates another issue called Unemployment problem. Because we don't have enough companies to hire all the candidates. Now a day's people have degrees and skills but they cannot find a job as their needs. Skillful people get jobs but the problem stays on such as less salary, less opportunities etc.

On the other hand, we are living in a world of technology. It is growing so fast. Like every peoples life is connected to it. Now almost every person is connected to the world via internet. So if they gather some skills and try to work in online marketplace then the number of unemployment can get reduced.

Over the world there are about 1.1 billion freelancers. But in our country the number is low. Because of some criteria. We did some research over the worlds online market places. On popular market place there are some limitations like getting low chance of hired and they charges a lot. So we built our marketplace to cover up the issues. Our marketplace will be friendly for beginner comparing with other popular market places. Also buyer will be able to hire freelancers at low cost. And our countries gateway will be used.

1.2 Project Overview:

First of all we research all the freelancing sites. Then find out some topics which are wanted by people but these are not included. By using new ideas form research, we will build a new freelancing platform only for Bangladesh. This platform will be accessible by only Bangladeshi People. We have both platforms web and android.

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1.2 Objective:

1. Make an easier workplace for educated unemployed people of Bangladesh.

2. Make a platform which will help us to make a communication among all the companies and freelancers of Bangladesh.

3. Save more money which is being spent on working with foreign freelancers.

1.3 Motivation:

After researching the worldwide market place we saw that many Bangladeshi people are trying to work as a freelancer remotely in many international sites. They have enough skill but they can't do the work easily. Then we have decided that we will make an easy freelancing platform only Bangladeshi people that will helps both Bangladeshi companies and freelancers.

1.4 Expected Outcome:

1. New workers will be confident at work.
2. Fresher will get work easily.
3. Unemployment problem will be reduced.
4. Client can hire freelancers at low cost.
5. Our local payment gateway will be used.

1.5 Features:

Our project will serve these-

1) Admin panel.
2) Freelancer profile.
3) Buyer profile.

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4) Posting job.

5) Running projects.

6) Completed projects.

7) Canceled projects.

8) Payment via bkash, nagad or rocket.

1.6 Report Layout:

Our report will contain 5 chapters.

CHAPTER 1: INTRODUCTION

(About the project Overview, Objective, Motivation & Features)

CHAPTER 2: BACKGROUND STUDY

(Terminologies, Related marketplace, Scope of problem & challenges)

CHAPTER 3: METHODOLOGY & REQUIREMENT ANALYSIS

(Required Software & Hardware, Methodology, Project Model , Use-Case Diagram)

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CHAPTER 4: DESIGN SPECIFICATION

(Front-end & back-end designing, UX design & requirements Implementation)

CHAPTER 5: IMPLEMENTATION & TESTING

(Implementation of database, implementation of front-end designing along with Results & reports)

CHAPTER 6: CONCLUSION & FUTURE SCOPE

(Discussion & Conclusion, Scope for further development)

Figure1.7.1: Report Layout

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CHAPTER 2

Background Study

2.1 Preliminaries/Terminologies:

Our world is now completely dependent on the internet and internet technologies. We don't have to go to the office and work offline. We can make money by freelancing at home. So, we have researched the global freelancing marketplace and we have created a new freelancing platform for Bangladeshi freelancers and Bangladeshi companies where Bangladeshi freelancers can get job offers and Bangladeshi companies can hire freelancers for a particular project.

2.2 Related Works:

At present there are many freelancing sites available but due to user interface and other problems those sites are not gaining popularity in Bangladesh. So we have created a freelancing site just for Bangladeshi users.

First we have researched some freelancing websites like Fiverr ,Upwork ,Freelancer , Guru and ShadhinKaj. Then we make survey and ask some freelancing site users if they would like to see any feature to our website that is not included in any other freelancing website. With new ideas from the research and some new ideas of our own, we have created a new freelancing platform for Bangladeshi freelancers and Bangladeshi companies. Only Bangladeshi people can access this platform. We have created both web and android platforms of them.

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2.3 Comparative Analysis:

Table 1: Comparative Analysis of related sites.

Sites	**Disadvantage**	**Our Project**
fiverr.com	It is very difficult and time consuming for newcomers/beginner to find work in Fiverr.	This project will help newcomers / beginner to find work easily.
upwork.com	Freelancers have to pay 10% of each transaction to Upwork and beginners get really low rate at first times.	This project requires very little money for freelancers especially for newcomers.
freelancer.com	Bids are automated by freelancers but it is not easy to find out if a freelancer is able to do the job.	Bids are automated but if a freelancer is not able to do the job, the job will go to another freelancer.
guru.com	There is a possibility of having fake clients.	After detecting a fake client, the account will be deactivated.

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2.4 Scope of the Problem:

To make the user more comfortable we introduced a new design concept. We mainly focus on user comfortable when they use our freelancer platform. Making a user friendly interface design was not easy for us. We are making this site for Bangladeshi client and freelancer. So, we need new user interface which was not introduced before and also we have to keep our site genuine.

New freelancers face problems mainly due to incomprehensible user interface. We give new freelancers the same priority. So we have introduced a new interface that will be user friendly for new freelancers and the experienced one. So creating a new design idea was very challenging for us as it took us a long time to design the interface.

2.5 Challenges:

Our system has introduced a betting strategy and it has taken us a long time to implement a betting system in our project. It was very challenging for us to introduce betting system in our project.

Review system is implemented in our project for freelancers and client. For the review system much data will generate. So maintain the large amount data was very hard and challenging for us.

We include in our project a live chatting system that will help both clients and freelancers communication among their currency and future projects plan which will be quite helpful for clients and freelancers. The implementation of the live chatting system was not only time consuming but also very challenging for us.

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CHAPTER 3

Requirement Analysis & Methodology

3.1 Required Software & Hardware

Software:

1. Xampp
2. Vscode
3. Composer

Hardware:

1. Computer

3.2 Methodology

This project is developed for reducing unemployment problem of our country. It will help the people who has minimum computer skills. We have developed the freelancing site targeting the youth and that will help out them standing on their feet. As a freelancer they will need an account to use our service. Same thing will be required for clients also. Both end will have their dashboard. Client will be able to see the freelancers profile about his status. For payment method we are using our countries gateways such as bkash, nagad.

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3.2.1Project Model

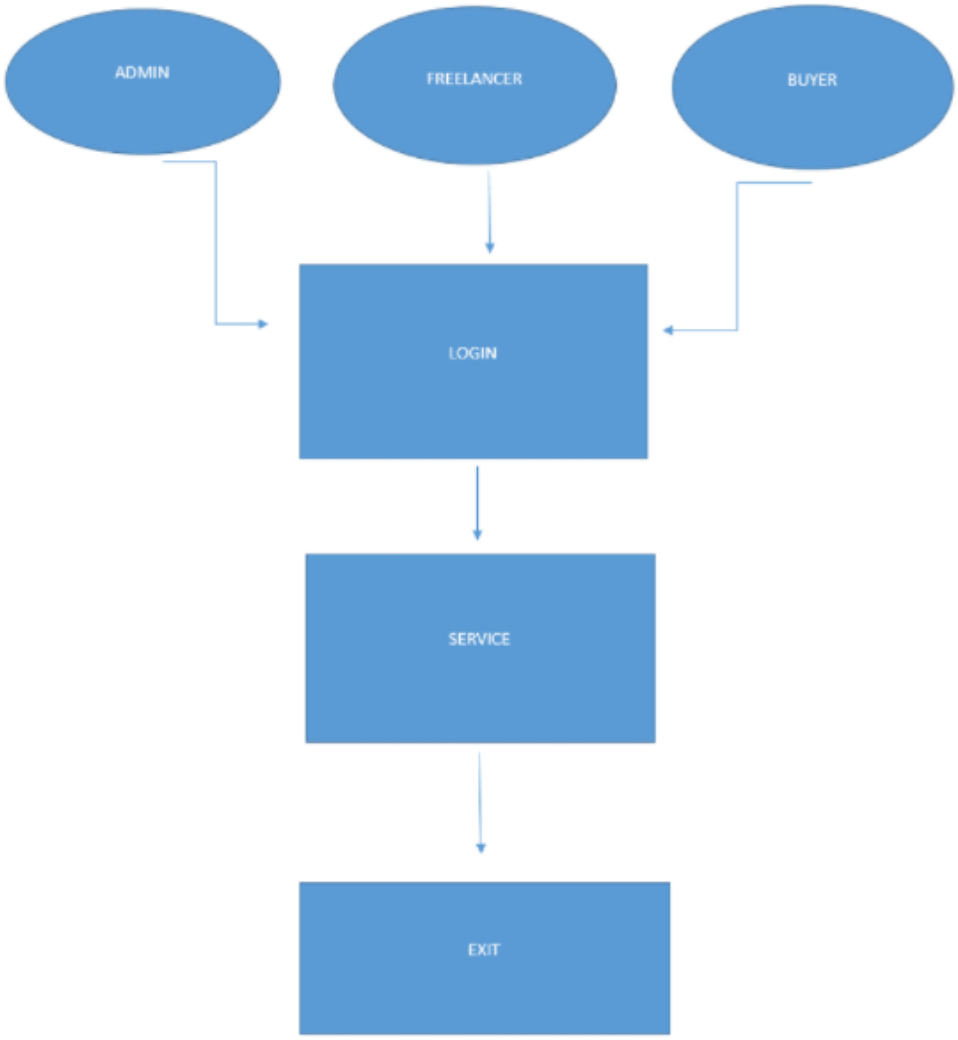

Figure 3.2.1: Mapping of the project

Figure 3.2.1 is showing our projects basic model where there will be admin , freelancer and client's log in portal. After logging in they will take service and then the session will be expired.

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3.2.2 USE CASE DIAGRAM

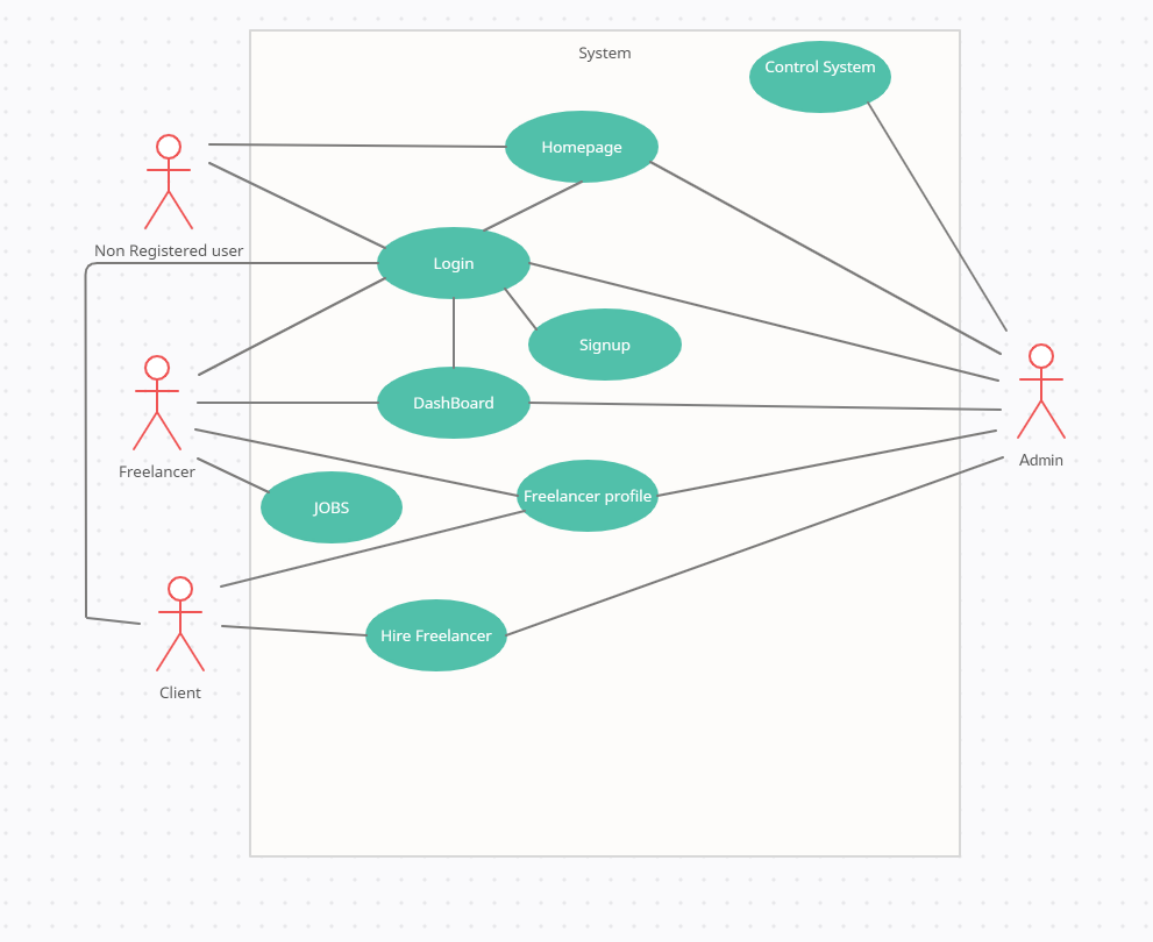

Figure 3.2.2 : Use Case Diagram Of HIRIC

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CHAPTER 4

Design Specification

4.1 Front End Design

In front end sector, we have two parts. There are:

1. UX / UI Design
2. Development.

For UX/UI, we have used the following tools

1. Figma
2. Photoshop

4.1.1 Figma

Figma is prototyping tool where web designing can be done. Figma is used for the UX and UI design. Basically it's a graphic designing tool that is web based. What makes it so attractive is the fact that it's free to use. Figma is different then other graphics designing tools. It works directly to the browser.

4.1.2 Photoshop

Adobe Photoshop is a photo editing and retouching software application for Windows or macOS based System. People use it to create, amplify, or edit images, graphic contents, and illustrations. This tool allows to change backgrounds, creating a different vision of the world and simulating a real painting. This software tool is the most widely used tool at photo editing, image editing and retouching for numerous. We have used this tool to design the UX/UI.

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For Development, we have used these:

1. Html 5
2. Css 3
3. Bootstrap4
4. Javascript
5. J Query
6. Git

4.1.3 HTML 5

HTML 5 is the 5th version of hyper text markup language. It is used for showing web content to the browser. it supports traditional Html and XHtml style syntax and other awesome features.

4.1.4 CSS3

CSS3 is the level 3 standard of CSS that is used to designing and formatting web pages. It is required to make html pages look beautiful and well structured. There's a reference link required between CSS and html.

4.1.5 BOOTSTRAP 4

Bootstrap is a frontend frame-work for CSS. It is the latest version of bootstrap. It is used to make sites responsive.

4.1.6 JavaScript

JavaScript is a programing language. It is a lightweight interpreted scripting language that supports cross-platform. Mostly it is used at client site to control the clients input and activities.

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4.1.7 J Query

J query is a JavaScript library. To do event handling, CSS animation and simplify HTML DOM tree traversal and manipulation Jquery is used. According to Wikipedia around the world (popular 10 million website) 73% of the websites used jquery.

4.1.8 Git

Git is software for tracking the updates or the changes in any set of files, generally used to coordinate work between programmers who jointly develop source code during software development.

We have used the following software:

1. VS Code
2. Xampp

4.1.9 VS Code

Microsoft's Visual Studio Code also known as VS code is an IDE. It's a well-known open-source code editor. It is well-known for its extensive library of extensions. It supports JavaScript, TypeScript, and Node.js, as well as a diverse ecosystem of extensions for C++, C#, Java, Python, PHP, and other languages and runtimes.

4.1.10 Xampp

Xampp is a well-known open-source web server application. Before releasing it to the main server, XAMPP creates a local host to test websites and clients on computers and laptops. It is a platform for testing and verifying the operation of projects based on Apache, Perl, the MySQL database, and PHP.

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We have also used some open source plugins to optimize our design and development.

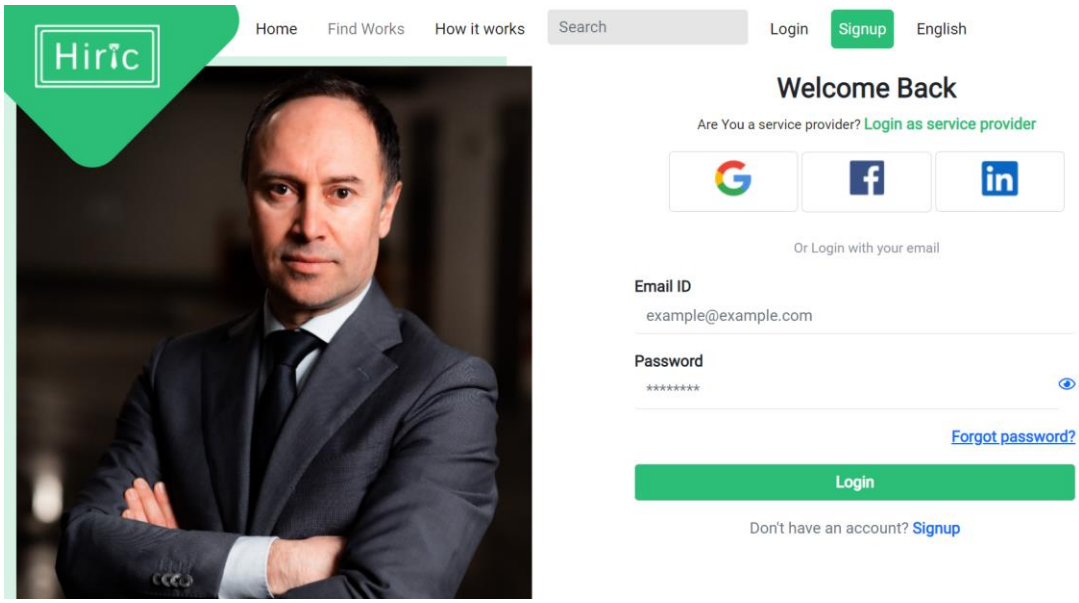

Figure 4.1.1: Client Login Page.

Figure 4.1.1 shows the client login page where client can login into his existing account. If he hasn't any then he can create an account by clicking the signup button.

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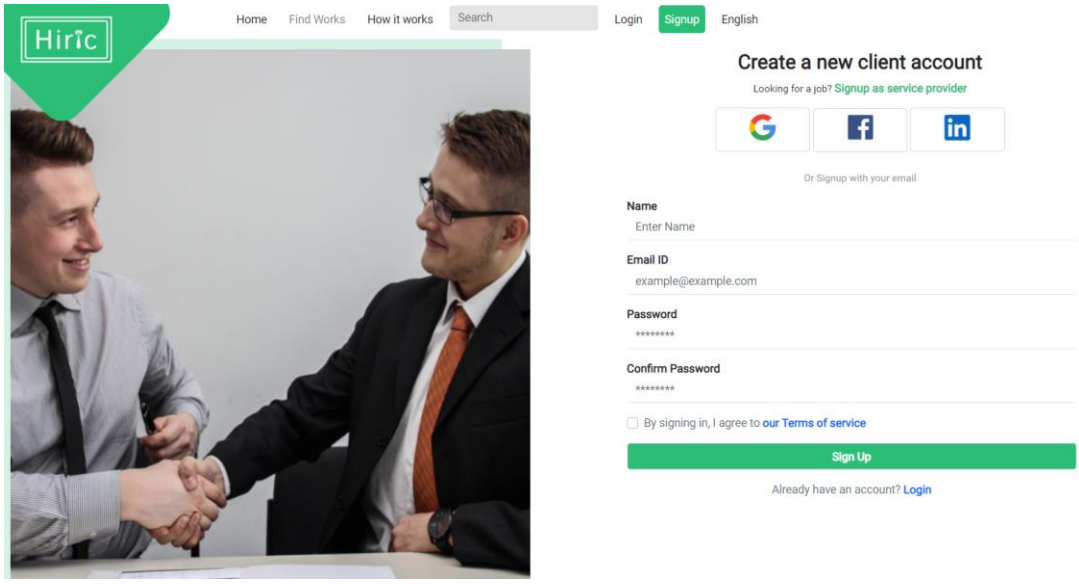

Figure 4.1.2: Client Signup Page

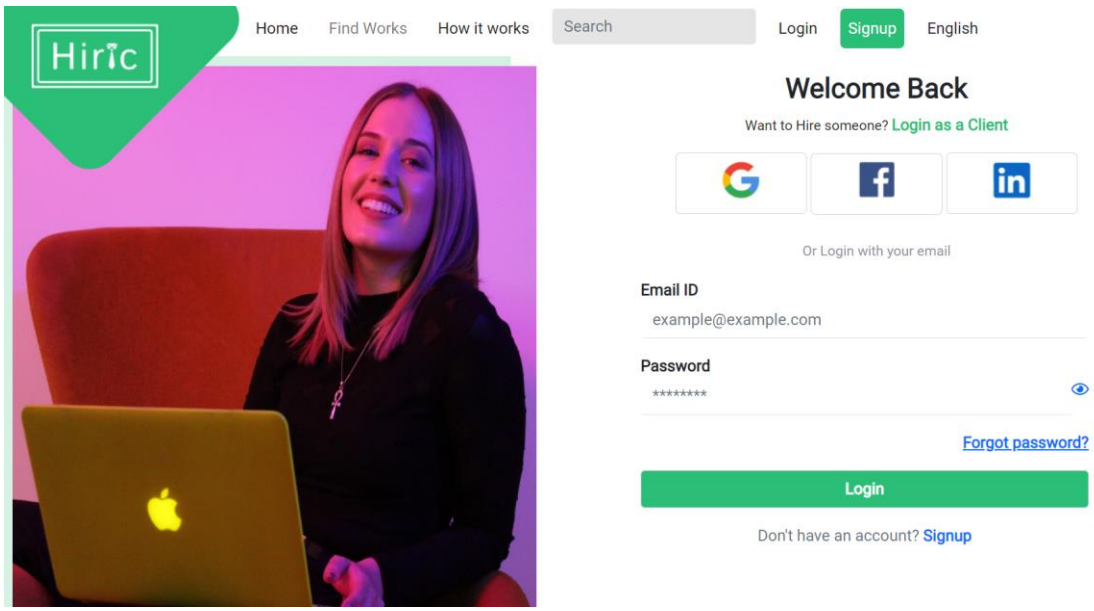

Figure 4.1.3: Freelancer Login Page

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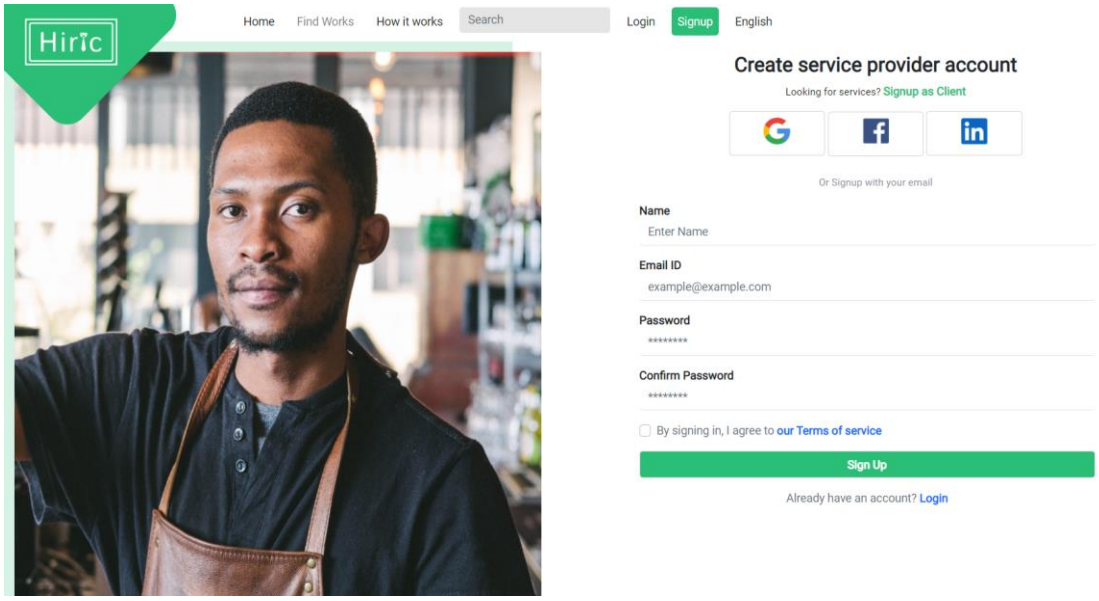

Figure 4.1.4: Freelancer Signup Page

Figure 4.1.2 shows the client signup page where he can register his account by entering valid email id and password. Figure 4.1.3 and Figure 4.1.4 shows Freelancer login and signup pages.

4.2 Back end Design

Back end development is the segment where renders the server side code, make a connection between database and design.

We have used the following tools for our back-end sector:

1. PHP
2. Laravel Package
    1. Controller
    2. Library
    3. Router
3. API
4. SSLCommerz Demo
5. MySQL

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4.2.1 PHP

Hypertext Preprocessor is a popular server site programing language.To mange Dynamic Contents, Databases and session tracking PHP is used. It helps people to make pages more attractive. It is popular because of it's performance and platform independency. According to W3Techs data worlds 78.9% website uses php as their server side programing language.

4.2.2 Laravel

Laravel is one of the famous open-source php-framework. It supports MVC that makes it much more popular. Installing laravel to any computer is very easy. It has its own template engine , Artisan CLI commands.

4.2.3 API

An Application Programming Interface (API) is a computer-to-computer connection. It is a collection of functions that enables an application to access data from an external source. A developer can use the API to send or receive data by making a specific "call" or "request." This communication is carried out using a programming language known as "JSON." This project makes use of the REST (Representational State Transfer) API.

4.2.4 MYSQL

MYSQL is an open source RDBMS formed on Structured query language. In this modern technology based world we deal with database almost everywhere.Basically a database is a collection of data that can be updated and managed. For managing database we have used MYSQL.

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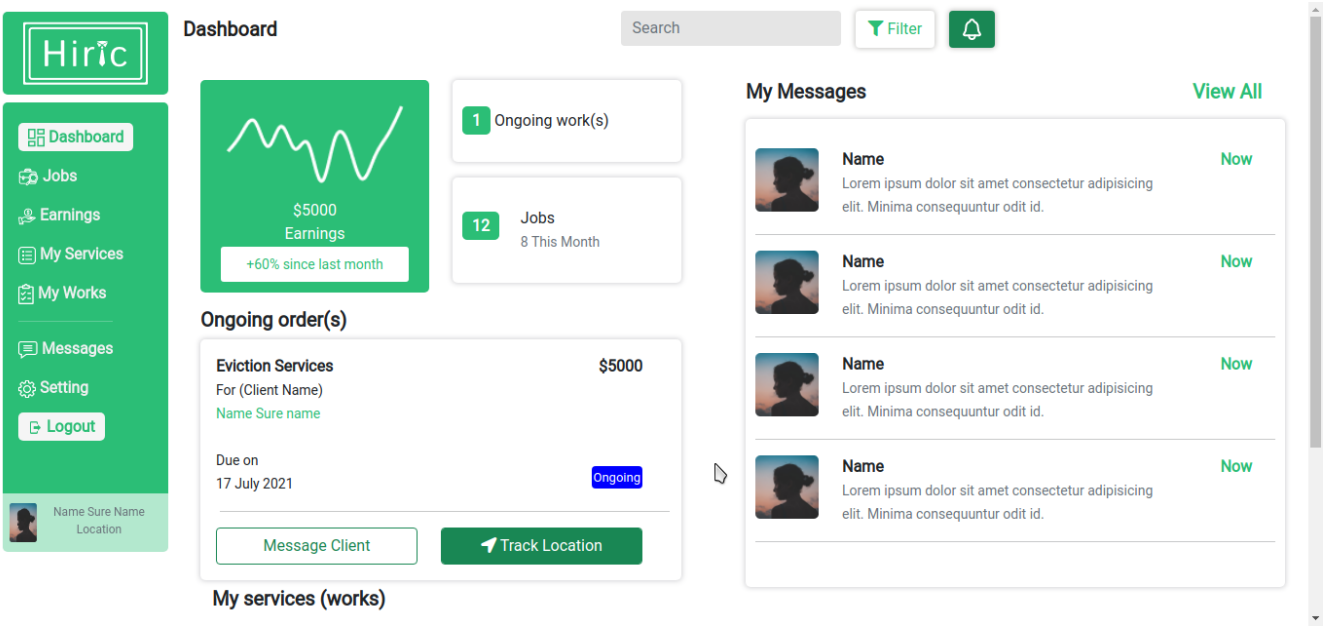

Figure 4.2.1: Freelancer Dashboard.

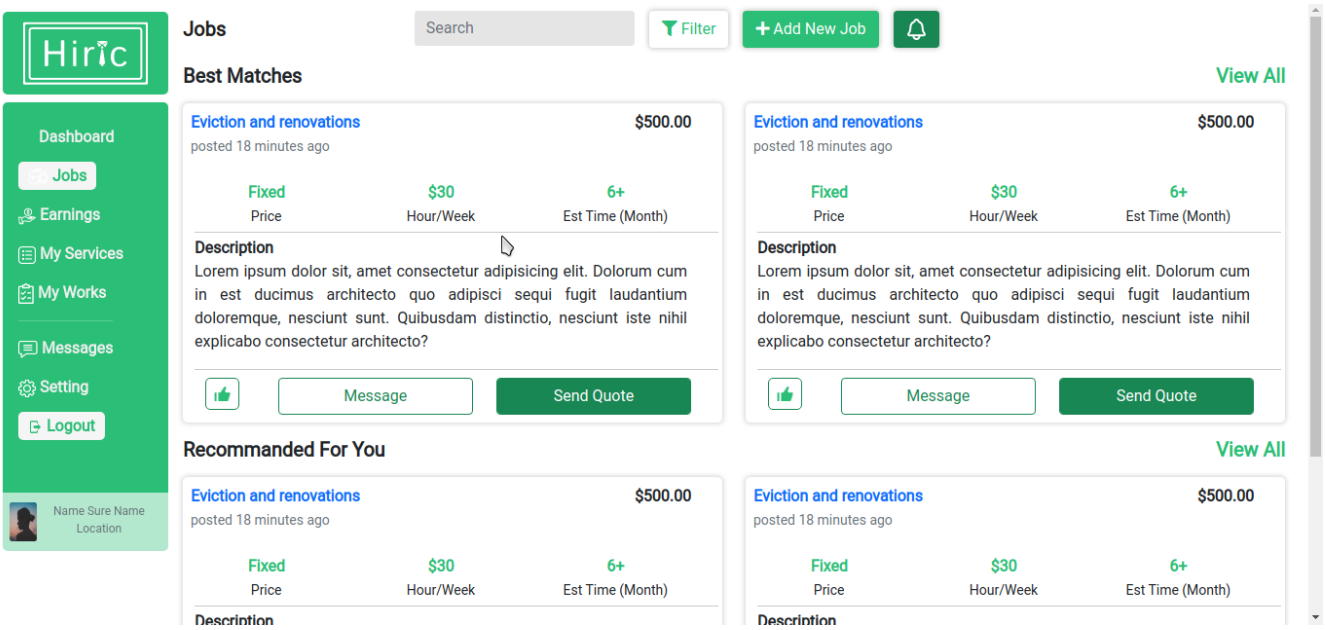

Figure 4.2.2:Job Page

Figure 4.2.1 Shows Freelancers Dashboard. After a successful login he/she will be redirected to the dashboard. Figure 4.2.2 is showing Job profile of a freelancer.

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4.3 User Experience (UX) & Interaction Design

We make our platform with user friendly and simple UX design. We have used figma to make this UX design. Then we start for development.

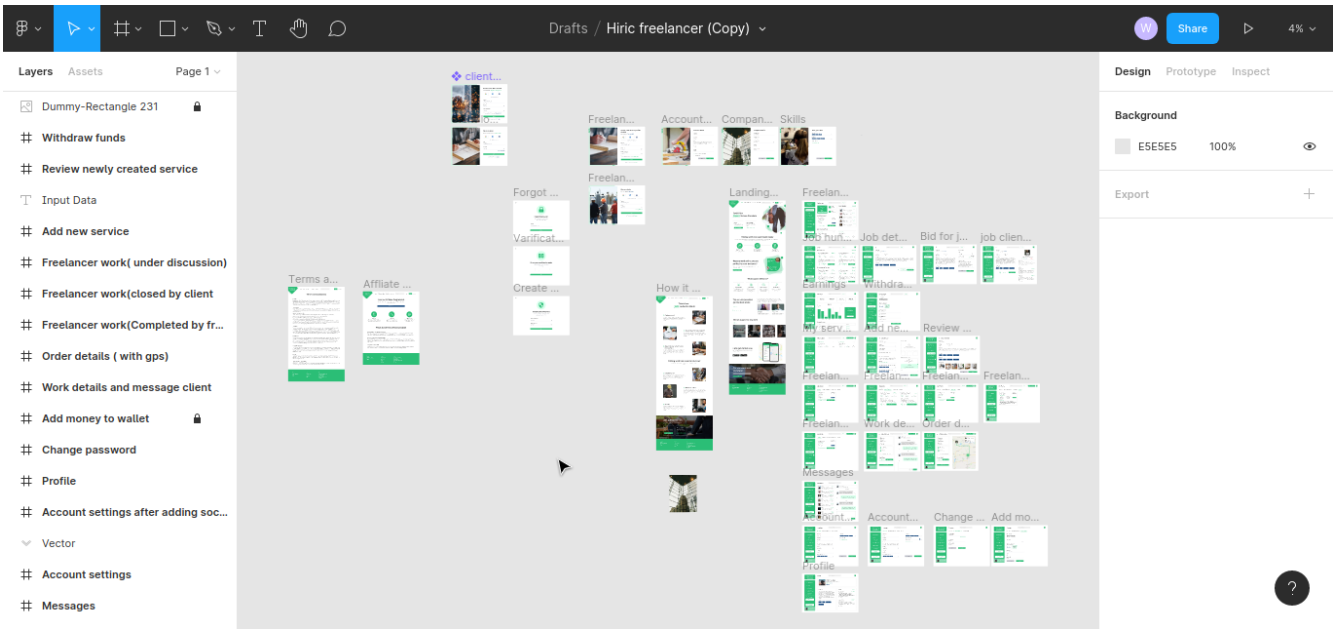

Figure 4.3.1:UX Desgin

4.4 Requirements Implementation

We think that this project will help our youth to make an easy earning source. We hope that it will be an alternative sector of fixed salary based employees.

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CHAPTER 5

Implementation and Testing

5.1 Implementation of Database

Database is the mandatory part of any time software development. We store all data in our database like:

1. User Information
2. Client Project History
3. Client Transaction History
4. Client Review
5. Freelancer Project History
6. Freelance transaction history
7. Freelance e-wallet data
8. Freelancer Reviews
9. Freelancer Bit History

We have used MySQL Database and Xampp server to run this web application in local server.

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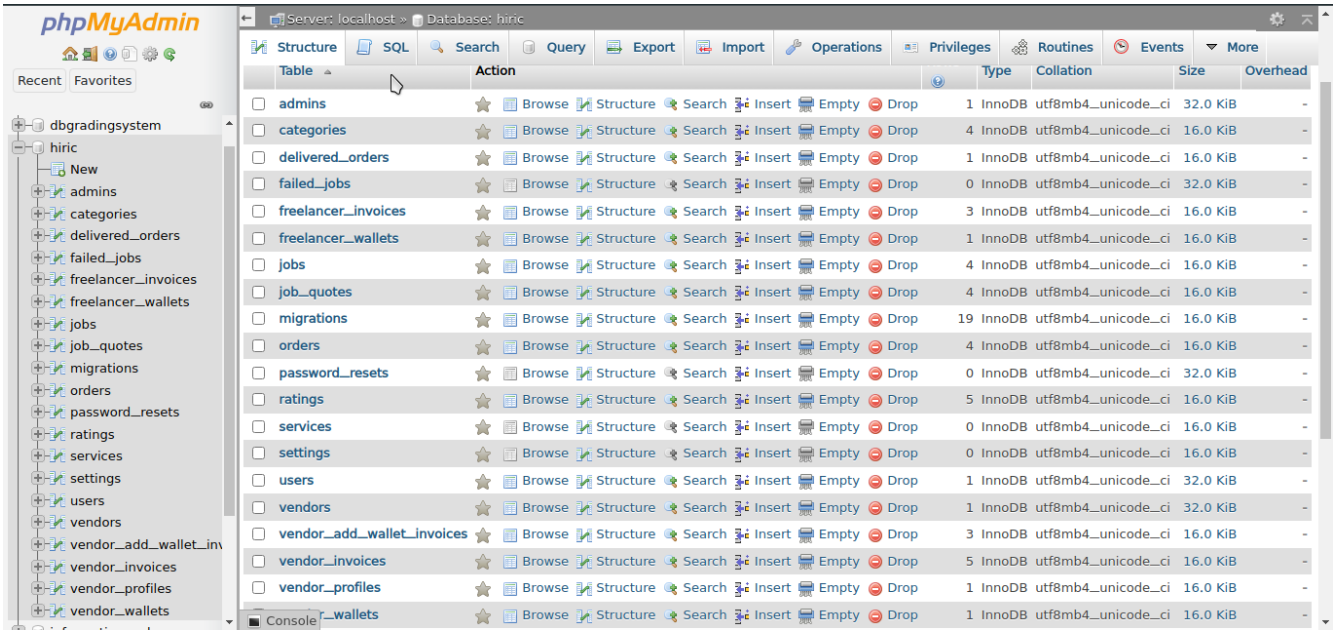

Figure 5.1.1: Database tables

Figure 5.1.1 is showing the table list of created tables of database HIRIC.

5.2 Implementation of Front-end Design

Now we implement our design. Then we make interaction between front end and back-end using API.

5.3 Results and Reports

Here is our test results:

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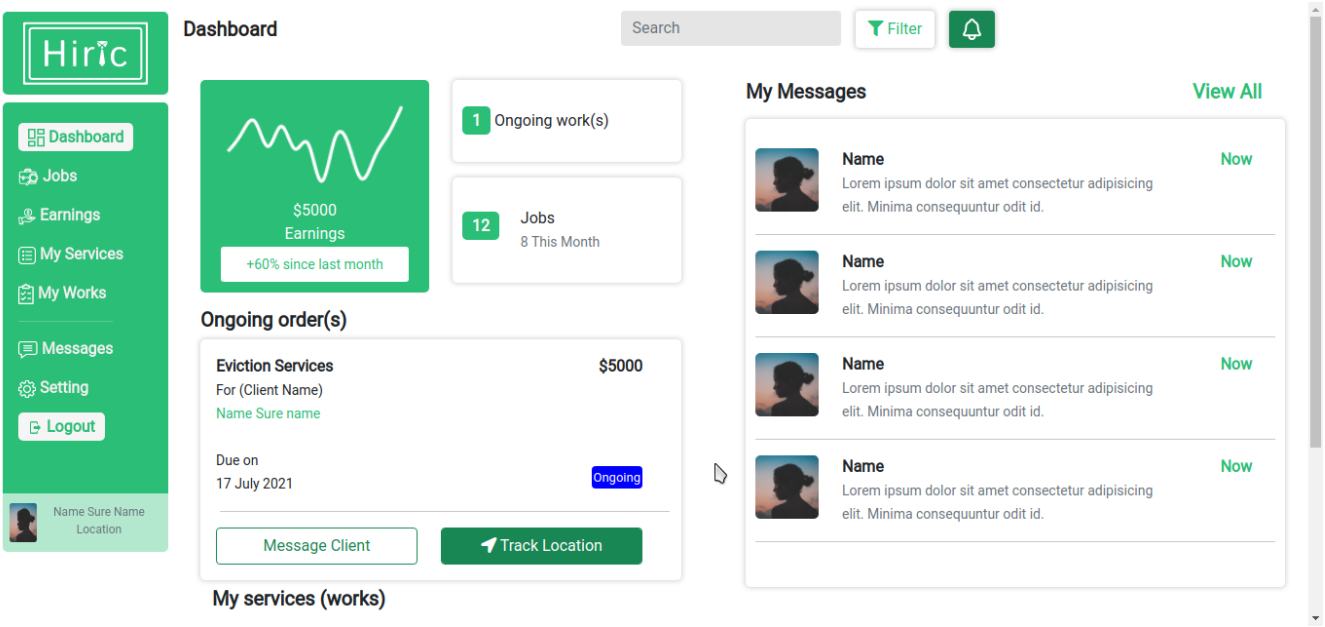

Figure 5.3.1: Freelancer Dashboard.

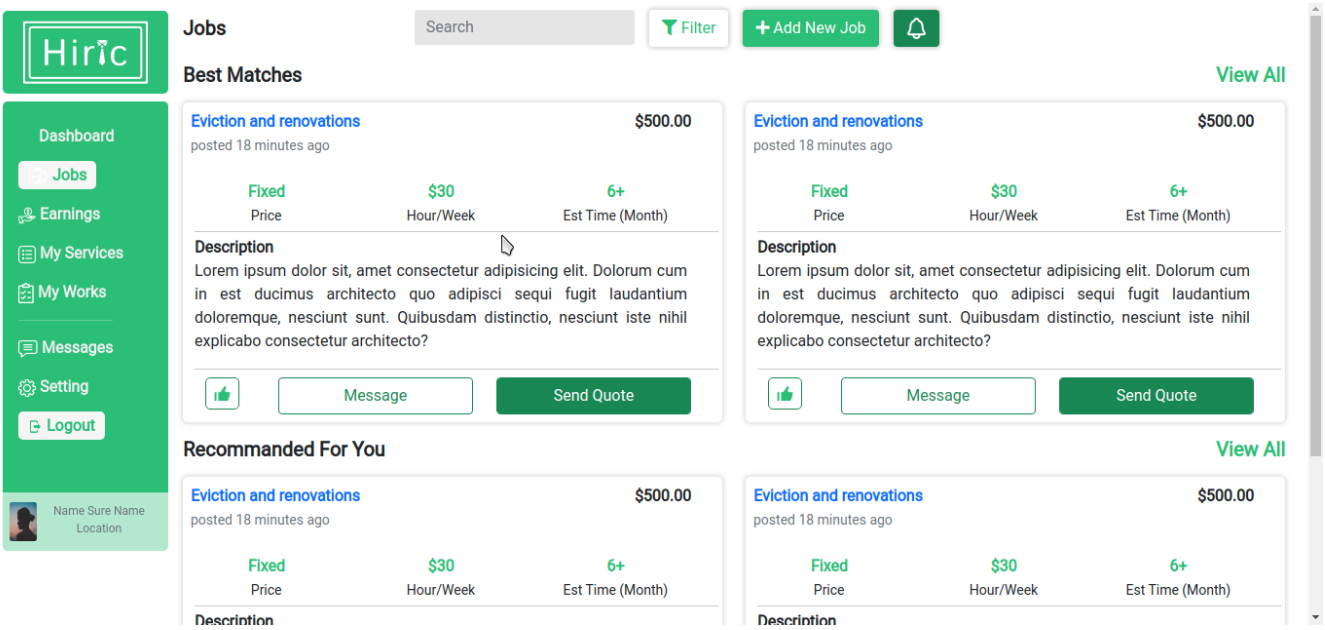

Figure 5.3.2: Freelancer Job Profile

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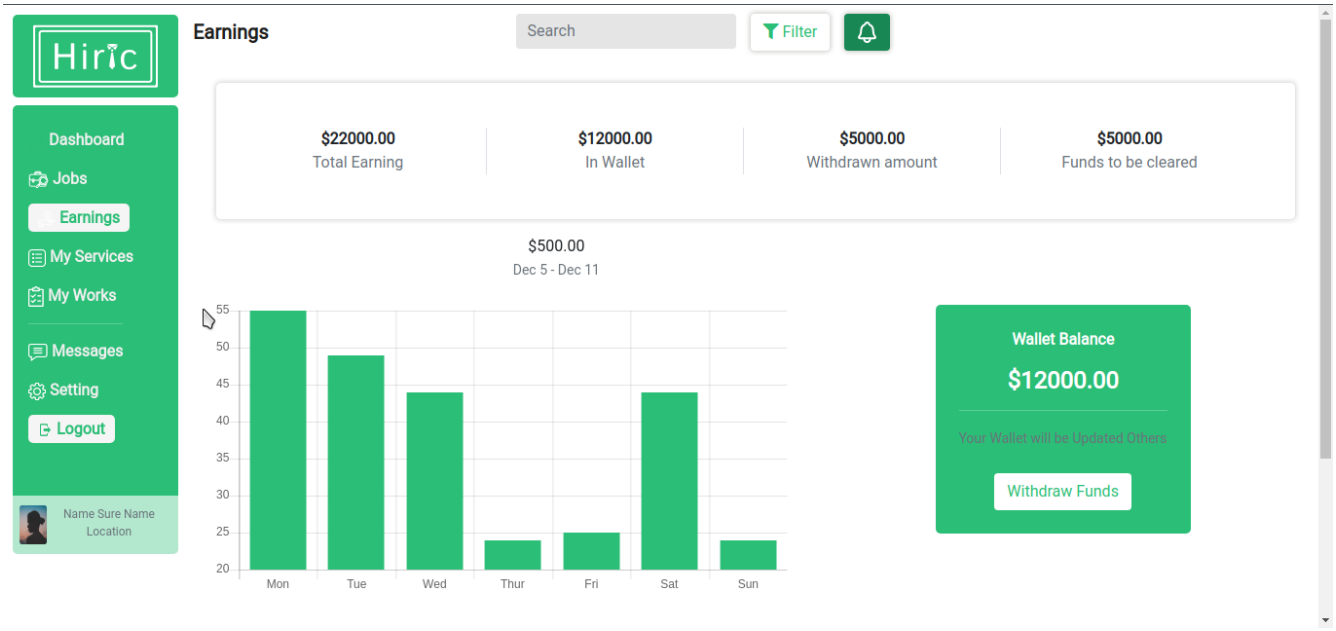

Figure 5.3.3:Freelancer Earning Graph.

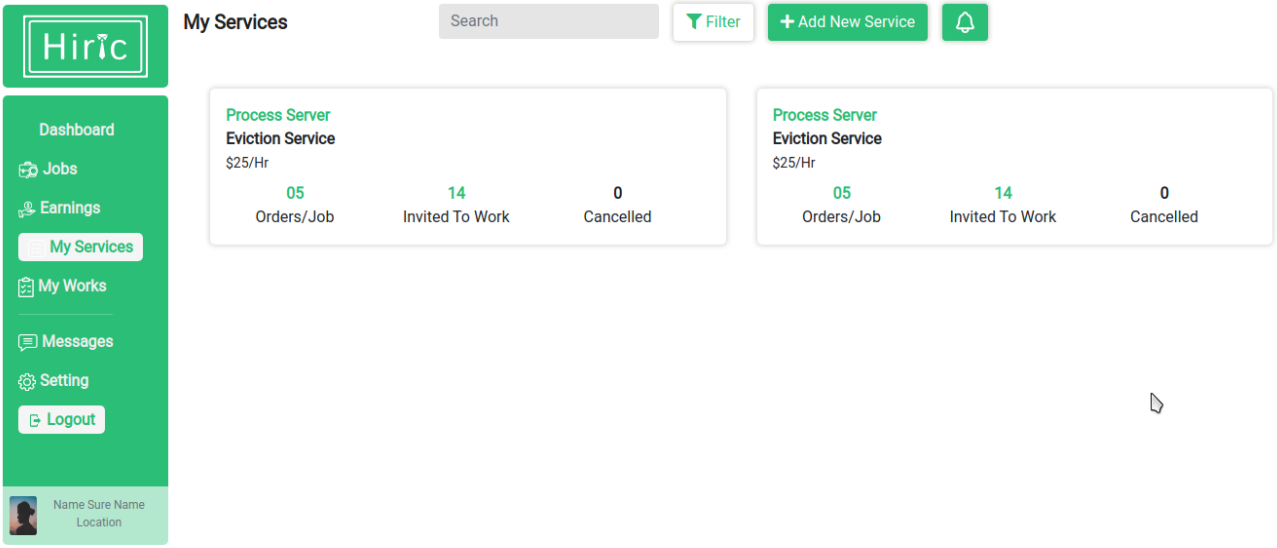

Figure 5.3.4:Freelancer Service Page.

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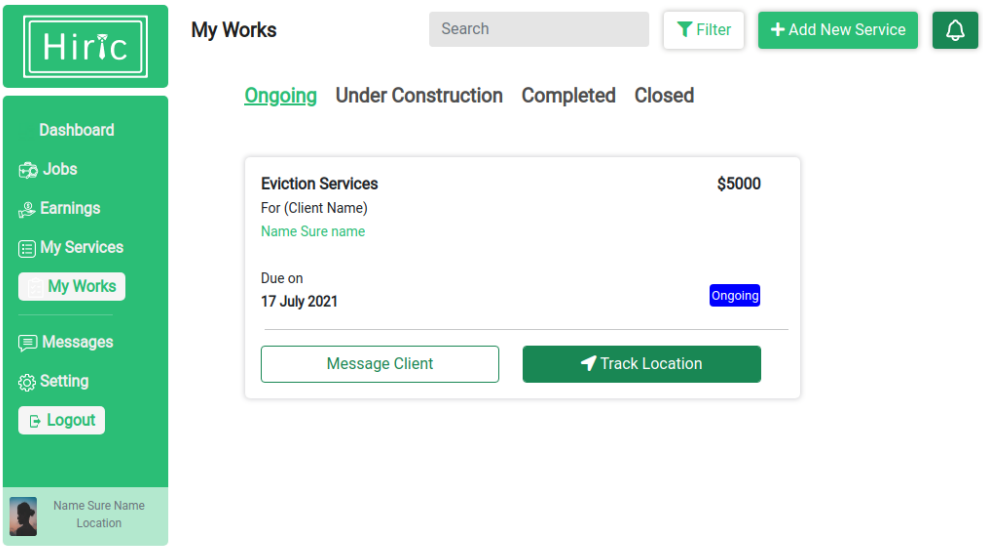

Figure 5.3.5: Freelancer's Works

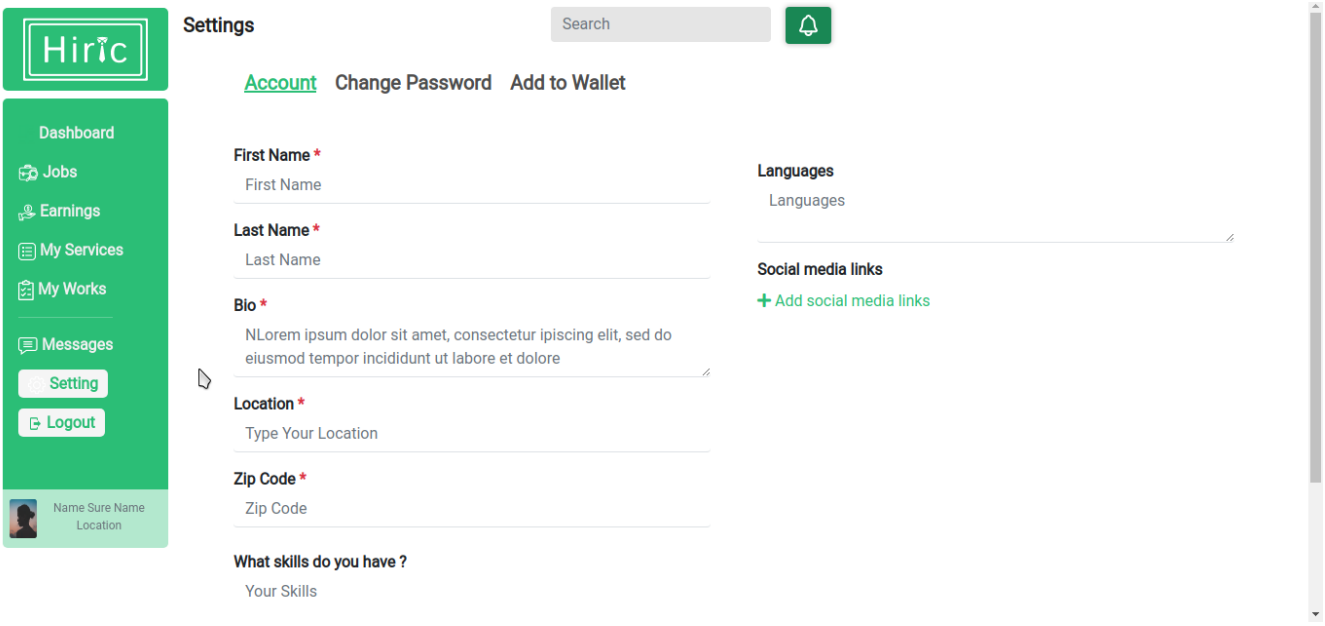

Figure 5.3.6: Freelancer's Setting page.

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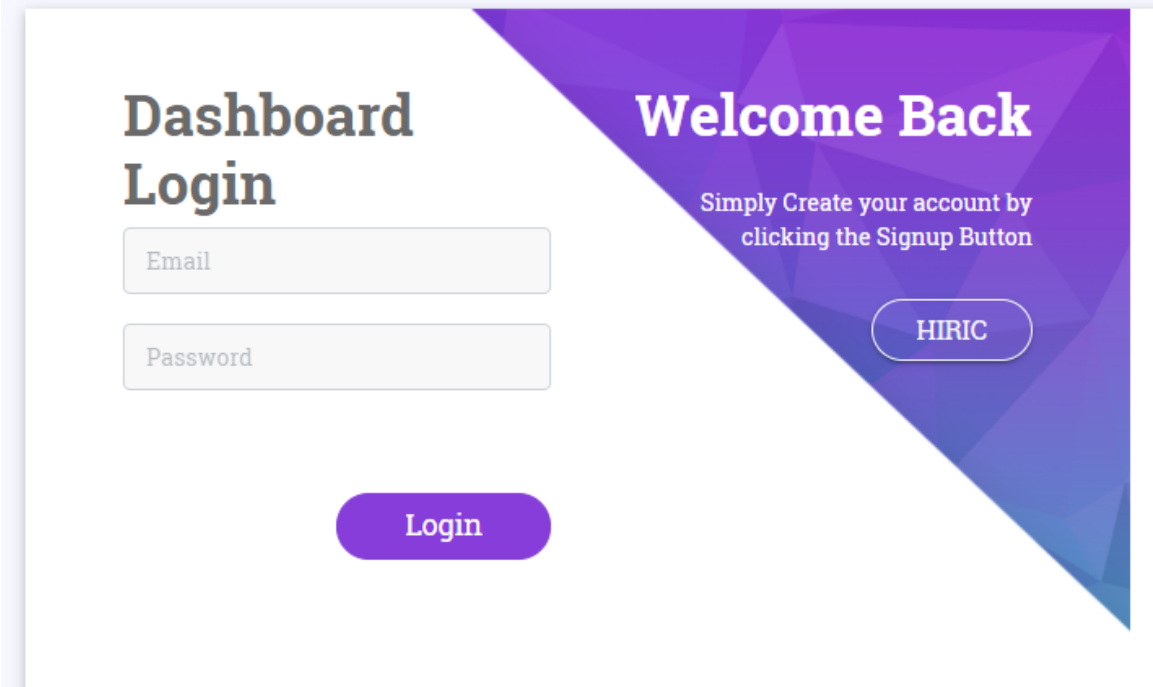

Figure 5.3.7: Admin Login page.

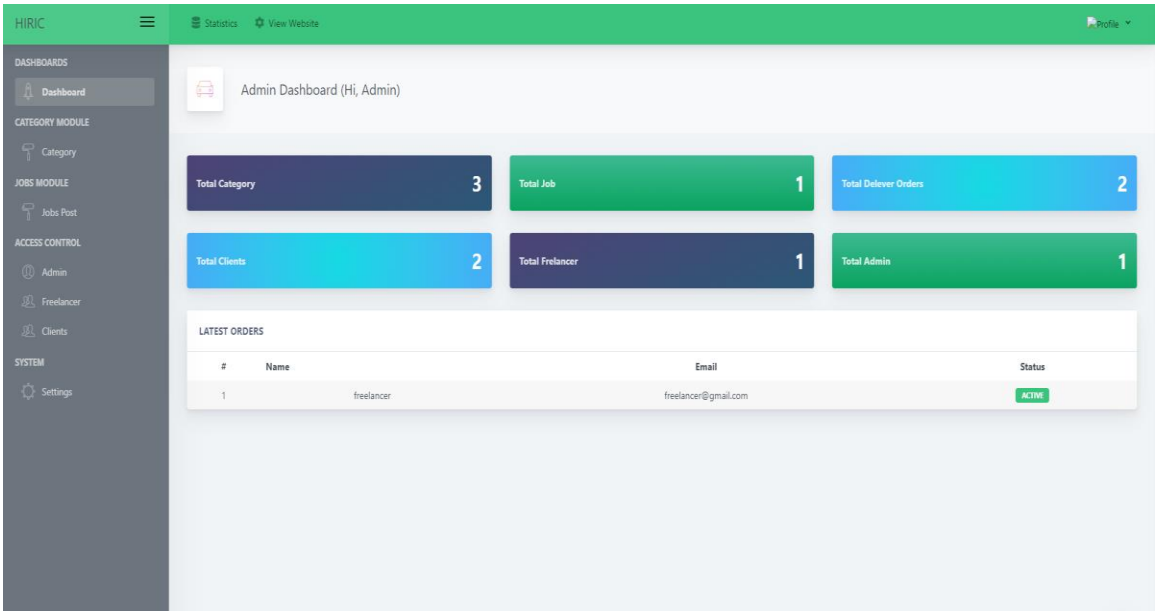

Figure 5.3.8: Admin Dashboard

Figure 5.3.1-5.3.8 is the output of the project.

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Chapter 6

Conclusion and Future Scope

6.1 Discussion and Conclusion

It is the age of innovation. The world is advancing in each and each seconds. On the off chance that we need to compete with the world, we have to be improve our capacities and contribute to digitalize our own country to begin with. That's the reason, we chose to create this extend which is able convey the medicine at home, give restorative help at domestic, book tests and counsel with the specialist through audio/video call. So we made an application which can offer assistance a parcel of individuals.

6.2 Scope for Further Developments

These are the future plan of this platform:

1. Make android and IOS application
2. Make live chatting system
3. Update security system
4. Finally launch it as a product.

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