Internship as "Web and Android Application Developer" in Popular IT Limited.

BY

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This Report Presented in Partial Fulfillment of the Requirements for the Degree of Bachelor of Science in Computer Science and Engineering

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APPROVAL

This Internship titled **"Web Programmer and Android Application Developer in Popular IT Limited,**" submitted by Md. Ahsan Habib ID No: 131-15-2280 and 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(CSE) and approved as to its style and contents. The presentation has been held on 11th December, 2018.

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DECLARATION

I hereby declare that, this internship has been done by me under the supervision of **Ahmed Al Marouf, Lecturer, Department of CSE** Daffodil International University. Again I declare that neither this internship nor any part of this activity has been submitted elsewhere for award of any degree or diploma.

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Finally, I must acknowledge with due respect the constant support and patience of my parents.

ABSTRACT

Internship as a **"Web Programmer and Web based Android Application Development"**. Work with various web technology and gaining of the knowledge to develop a huge project have been widely discussed. Working experience with various project and a large team is totally different in environment as we think generally. Duties of a web Developer or Programmer and co-operational working procedure have been discussed in this report. Working experience with JS, PHP and WordPress among various web technology like- JS(ES6; AngularJS; ReactJS; VueJS etc.), PHP(Laravel; CodeIgniter, Symphony; Magento; YII; Cake PHP etc.), CMS(WordPress; Joomla etc.) have been focused in the discussion. How a large team work collaboratively by following a special working model is discussed in the report. There are many layer of a project development. Which layer I've worked with and my experience with that layer has been discussed. Mainly my work of developing Newspapers, E-Commerce and many more dynamic Websites have been discussed. Development of frontend with backend system and gaining knowledge of being a full stack developer have been discussed slightly.

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CHEPTER 1
INTRODUCTION

1.1 Introduction

The internship was about hand to hand work experience with the modern web technologies from the very first or the scratch such as HTML, CSS, JS, JQuery, PHP and other languages and an introduction to web based Android Application Development with Java Programming Language. This internship will involve dynamic and challenging opportunities and help to trace the best career for the 21st century. This is a great opportunity to gain hands on experience on web application development and step to the first stair in Android Application Development.

1.2 Motivation

I worked with an internship program to develop myself for creating the best career as a Web Application Developer or a Web Programmer. I believe that this career is the most powerful career in this 21st century. Again this job has a super dynamic environment that will help me to grow more in the next decade and will help me to create a start-up. They helped me and the other employee in learning new technologies, strategies and various idea those will help for the growth of any company and the best team. Again that may help Seeking for a challenging and creative job in a dynamic and a better work place where I can use my strong technical knowledge and skills.

1.3 Internships Objective

I've gained the knowledge about web technology and a major area of web programming languages. There was a Perception that was the importance of the web sites and mobile applications for the Institutions, Businesses, Brandings, Personals, Spreading the News, Discussions, Communication and the other purposes is so much what is hard to describe in words. I've experienced on the office environment for express my career in the future. I realized the strength of team work. That internship increased my sense and responsibility and good work habits maintaining the time line. Now I can implement my innovative ideas, skills and creativity for develop my career in the best job sector in the world.

1.4 Introduction to the Company

Journey Begins of Popular IT Limited (2009)-

Popular IT Limited begun its journey as a conventional IT company in 2009 by a born dream walker. After 2 years it starts the journey as another country office in Hong Kong in 2011 and runs more than 3 sister concerns within 2017.

Further steps of being one of the best IT company-

Popular IT started 2011 in Hong Kong but won the "Hong Kong ICT Award" in 2013 by proving the best dynamic and fast IT services in Hong Kong. In November, 2011 it started a new sister concern "Popular Server" with new ideas and dreams to provide the hosting facilities in reliable price. After that Popular IT becoming one of the most popular IT company in Bangladesh and abroad. Now Popular IT has more than 450 clients in all over the world. It creates it's another sister concern "Themes Bazar" in 2017 and this is the first and only Bangladeshi themes market place like "Envato Theme Forest" with various WordPress and other themes in a single place.

And Popular IT Limited continuing its journey…

1.5 Business Background

Popular IT runs the business from the 2009 with a tiny dedicated team. But it runs another country office within two year in Hong Kong. Separately It runs another two sister concerns within next few years as a CEO concern of Md. Helal Uddin successfully. Spread the services among all over the world and creates more than 450 customers from the home and abroad.

Vision

To achieve the highest level of IT services. Ensuring the reliable IT services and making Bangladesh develop in ICT sector.

Mission

Their mission is to deliver IT services fast, hassle free and fair. To give the guarantee of the best server ever. Reaching to all the people of Bangladesh to introduce the benefits of ICT and spreading the knowledge among the citizen by providing best quality IT training.

1.6 Report Layout

A report design is an archive that goes about as a format or visual that characterizes the standpoint of a report. A report format will normally utilize tables to organize content, where the report contain information fields, content or picture.

Discussion on Chapter 1-5

- In the ‘Chapter-1’ I have discussed about the Motivation, Objectives and the Introduction to the company. Later pursued by the report design.
- Discussed all about the organization where I’ve done my Internship in ‘Chapter-2’. I also described about Introduction of the Organization, Product and Market Situation, Target Group, SWOT Analysis and Organizational Structure.
- ‘Chapter-3’ is all about the daily tasks and activities I’ve done during my Internship, Events and Activities I’ve attended, My Projects Tasks and Activities and the Challenges I’ve faced in the Internship.
- Discussed about the earning of Competencies, creating of Smart Plans and Reflections of the organization in ‘Chapter-4’.
- Discussion on ‘Chapter-5’ about the conclusion of the Internship and the expected future career by the gained knowledge from the organization.

CHAPTER 2
ORGANIZATION

2.1 Introduction

Popular IT Limited since its inception in 2009, has given the best IT services like Web Development, Mobile Application Development, Game Development, ERP, CRM, POS, E-Commerce Solution, IOT, Domain-Hosting Service, ICT training. Popular IT has the first and only Theme market place(https://www.themesbazar.com) in Bangladesh. Themes Bazar has more than hundreds Free and Premium Web Templates, WordPress, Joomla and other themes. Popular IT works with the modern web and mobile app development technology.

2.2 List of Products and Services

- Quality Computer Training on Microsoft Office and other Tools.
- Freelancing and other ICT Training.
- Print on Demand Services.
- Logo and Graphic Design Services.
- Lead Generation and SEO Services.
- Modern Web Site Design and Development with latest trend.
- Mobile Application Development.
- Web and In-App Payment Gateway Services.
- Web Security Services.
- WordPress Themes and other CMS Services.
- E-Commerce Solutions.
- ERP, CRM, Payroll Software Services.
- Biometric Device attendance System.
- VPS and Cloud Server Services.
- Shared Hosting and Domain Services.
- Reseller Hosting Services

2.2.1 Related Products I Worked with

Products: E-Commerce and WordPress Theme Development, Web Based Android Apps.

Description: E-Commerce Website and Employee management system for Sailor Fashions Limited. News Lite and News Moon WordPress Themes. Witty Lab and other web based android application development.

2.2.2 Market Situations

Popular-IT has created the most valuable market situations for their fair and fast5 services with reliable costing. Popular-IT gives the services of Various training of Computer. And in this present age this has a lot of possibilities among the modern business competitions. Again the Training of ICT such as Web Design, Web Development, Graphic Design, Logo Design, Lead Generations, SEO, Server Management and Most trendy ICT service Print On Demand.

These training services only provide at most twenty or thirty company in the Dhaka City but they are not all classified or quality based. But Popular-IT serves with the quality and the best mentor for the topic.

Recently Popular-IT serves the VPS server and this has created the most valuable market situations for the company. Again Themes Bazar the only and first market place for the WordPress and other themes in Bangladesh. And Themes Bazar has created huge customers within a few months. It's selling Themes and Plugins among the whole Asian Subcontinent presently and in future it'll spread all over the world.

2.3 Target Group

- New Companies or Business is a great target for making their Web Sites, Online Management Systems, Bio Metric Attendance System etc.
- New Journals for making the Online Portal and Live Broadcasting System.
- New Hospitals and other Enterprises to help them to build their Web Sites, Mobile Applications, Management Systems, Bio Metric Attendance device, Online Marketing etc.
- Individuals for making their Portfolios and Mobile Application.

2.4 SWOT Analysis

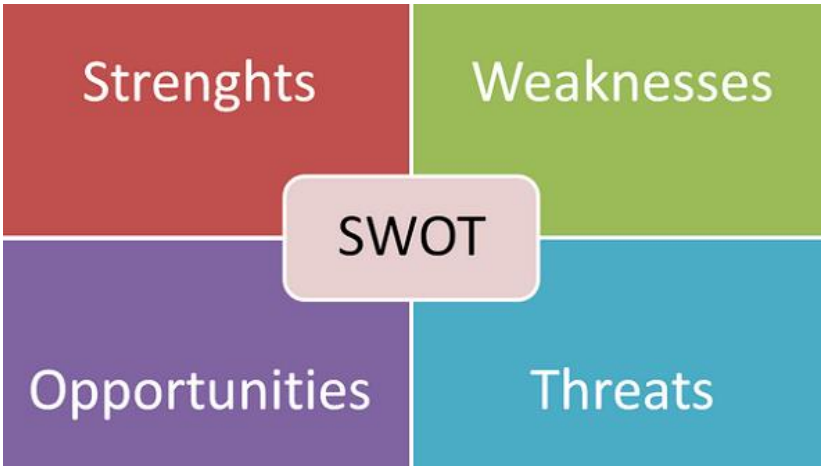

Figure 2.1: SWOT Analysis

Strengths

- The Company has stability to make difference comparing other IT Company.
- Best Server and Hosting Providing.
- Best ICT training in the city.
- Print On Demand Services for the first time and only in Bangladesh.
- Best Web Design and Development Services following the new trend.
- Best Mobile applications services.
- Ensuring the security tokens is another strength for the company.
- First Themes Market Place in the country.
- Fair and Reliable services.

Weakness

- Team management.
- Less staff can hamper the productivity.
- Lagging of project management.
- Critical situation handling.
- Print On Demand Services is a new service in Bangladesh.

Opportunities

- Print On Demand Services for the first time in Bangladesh.
- Making a difference for the Bangladesh with Themes Bazar like Envato market.
- Opponents aren't able to run with its service area.
- Working with the trendy technology can bring more satisfactions.
- People are tensed with fair service but Popular-IT ensures that.
- Themes Bazar can make a vast employment area in the next decade.

Threats

- Working with new technology needs to make new team learning.
- New Technologies create the hard problem sometimes to solve.
- Some companies are working hard to reach the point.

2.5 Organization Structure

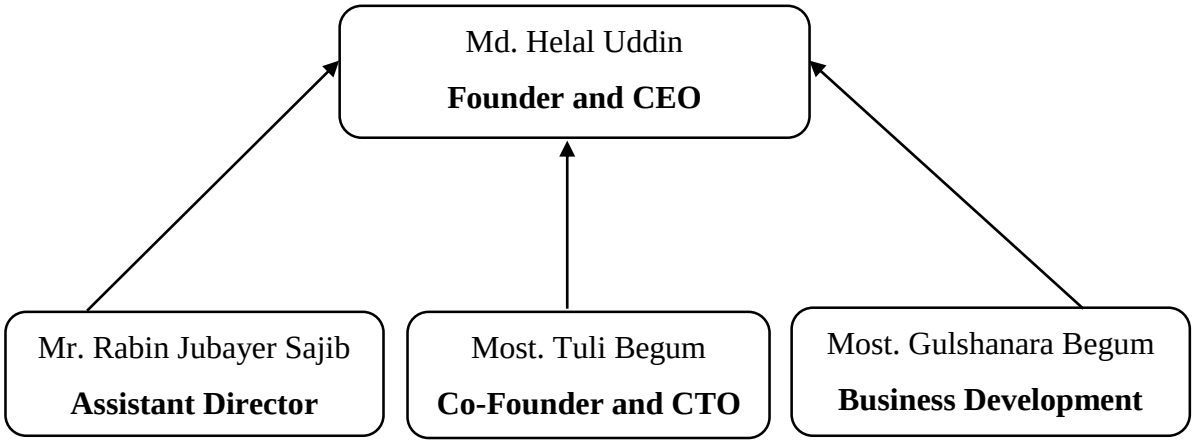

Figure 2.2: Organization Structure Diagram

CHAPTER 3

Tasks, Projects and Activities

3.1 Daily Task and Activities

Office starts at 09.30 am and ends at 06.00 pm regularly 6 days in a week. In that time period I had many task to do with.

- Starting with basic web site design with HTML5, CSS3, JS and Bootstrap.
- Making of XML for the Android application.
- Tracing the error for the designs and fixing them.
- After 1 month I faced a project of WordPress Theme Customization and development for the clients with the co-operation of Durbin Labs Limited.
- After 2 months I had worked with an E-Commerce website in the co-operation of Durbin Labs Limited.
- Learning new technologies and new creative and outstanding design continuously.
- Hand to hand experience on big projects and the knowledge of finishing the job maintain by the timeline.

3.2: Events and Activities

This Internship helps me to learn the new languages and technologies within a short time. That helped me to make myself well known with the IT event management and other activities within the scheduled timeline. The internship helped me to develop my experience on hand to hand projects and heal me to develop my resume and portfolio.

There was a challenge for every project I developed in my Intern Period. Those challenges were following the timeline, making the outstanding projects, bring the customer satisfaction,

Ensuring the no need more revisions on the projects.

Again there was a nice environment for learning and working in a friendly mind set co-operational platform. That helped to gain the experience to work in suit myself in any kind of work place and organization.

3.3: Project Task and Activities

The primary aim of this Internship was to learn Web Development and Web based Android application for the Industries. So I worked with an E-Commerce System, several Web Sites, Themes and Web based Android Application.

Restaurant Site and Backend Management system development

Languages Used

- HTML5 for making the skull of the site.
- CSS3 for refining or colorized the skull of the site.
- Bootstrap for designing perfectly for all the device optimization.
- JavaScript for creating interactive features.
- Core PHP and Laravel Framework to develop the functionality.

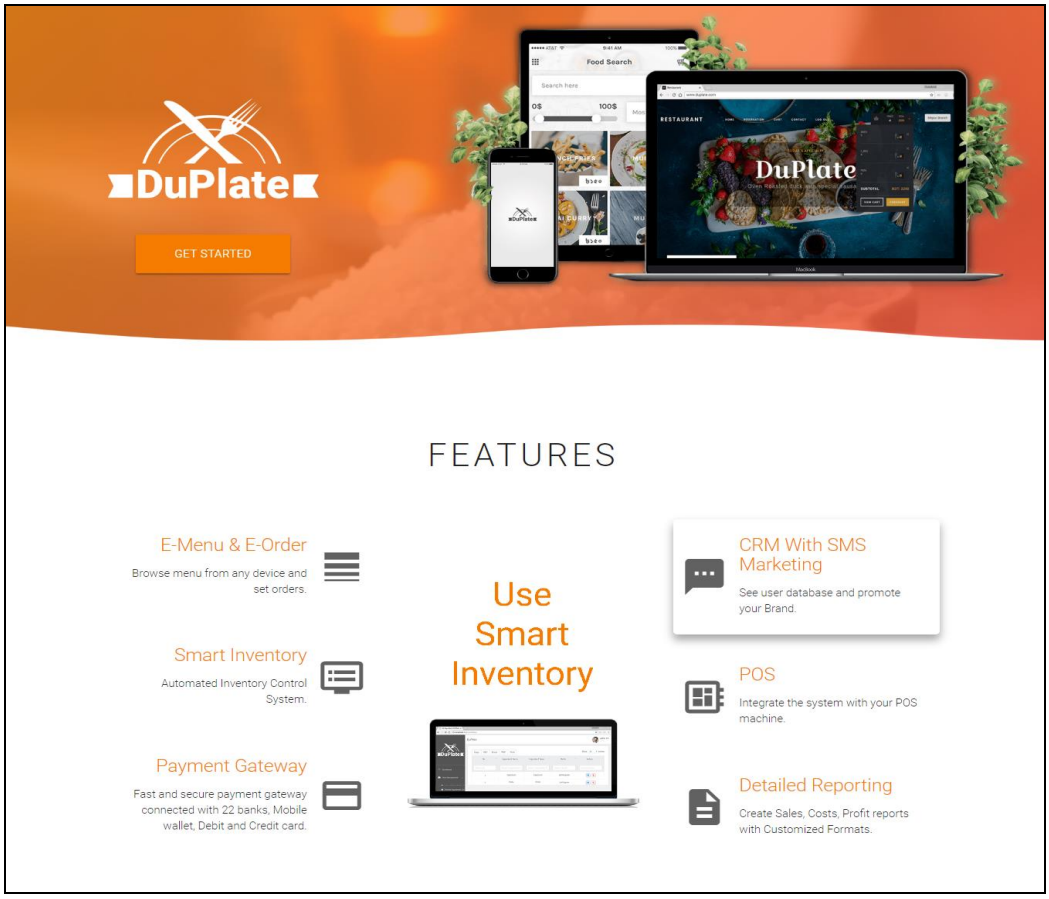

Figure 3.1: Client Site for DuPlate

Features of Client Site for DuPlate

- Clint can know the system features and facilities.
- They can ask for the Price Quotation and other Information.

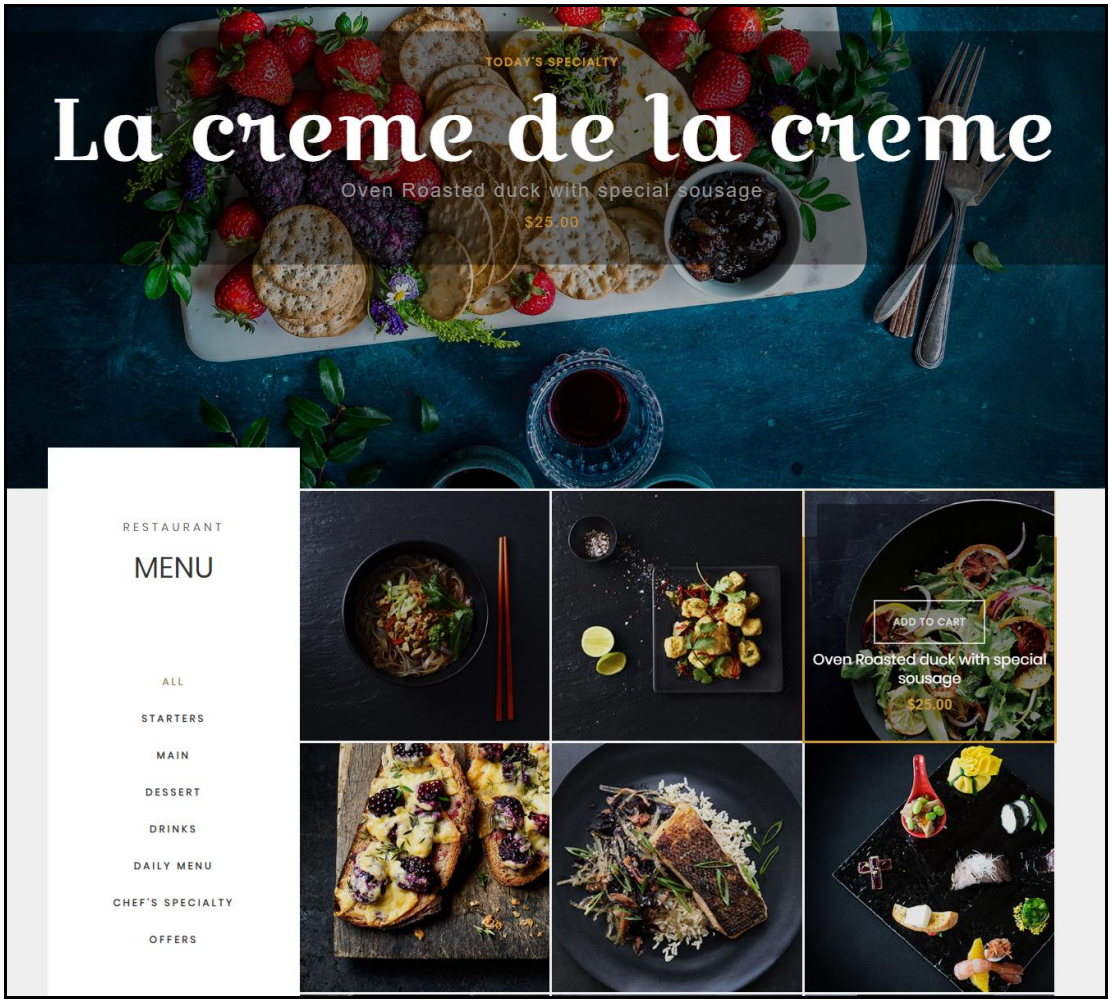

Figure 3.2: Customer Site of DuPlate

Features of Customer Site

- Customers or visitors can see the food list and price.
- They can add multiple food to their order list.
- They can edit the cart.
- Customers can order and payment through the system.
- Receive the invoice and delivery status.

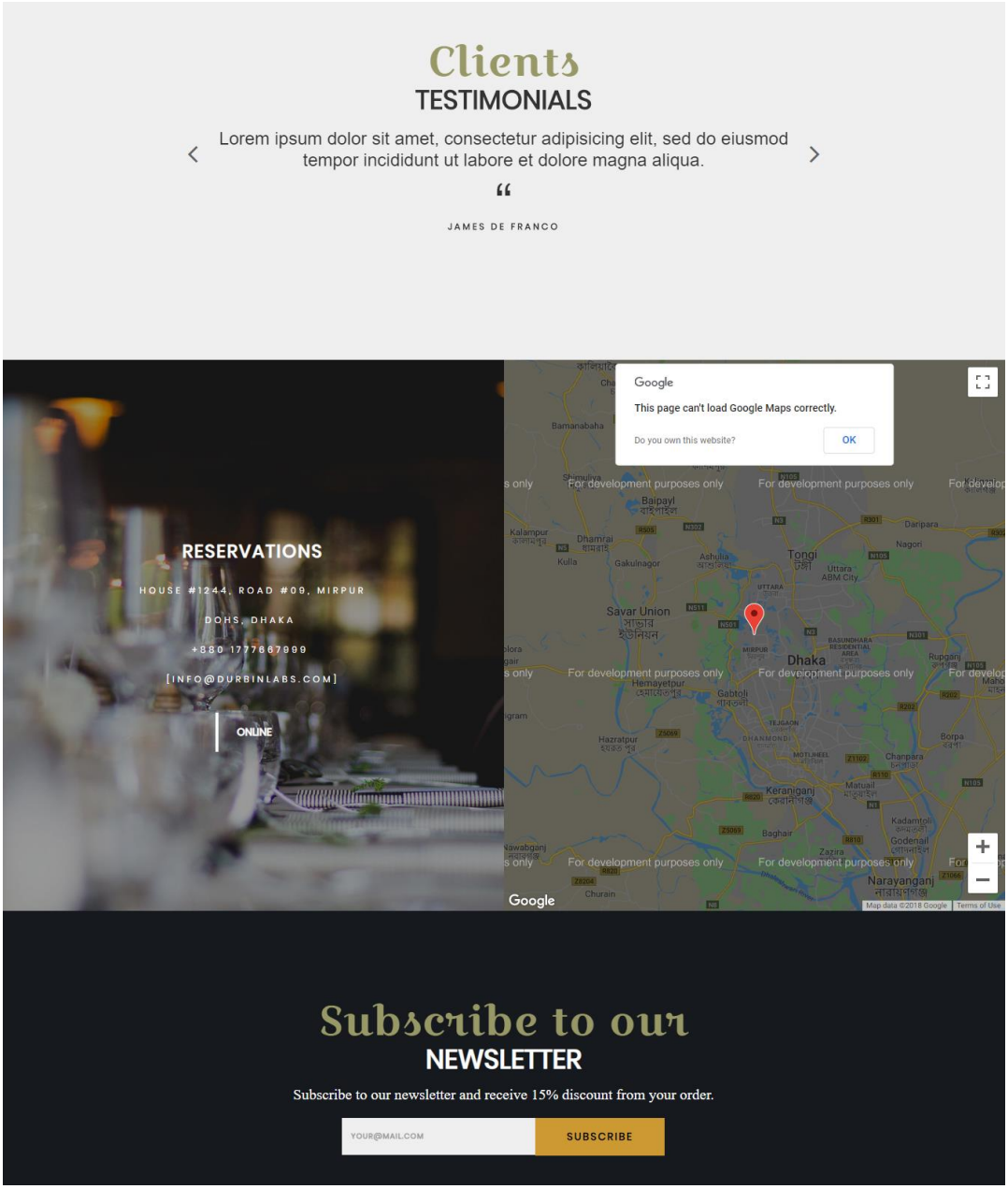

Figure 3.3: Customer Site Page-2 (Testimonial, Location and Newsletter)

Features of Customer Site Page-2

- Customers can give the feedback
- Customers can find the restaurant location from the map
- Customers can subscribe for the monthly or weekly newsletter for receiving the mail about updates and other offers.

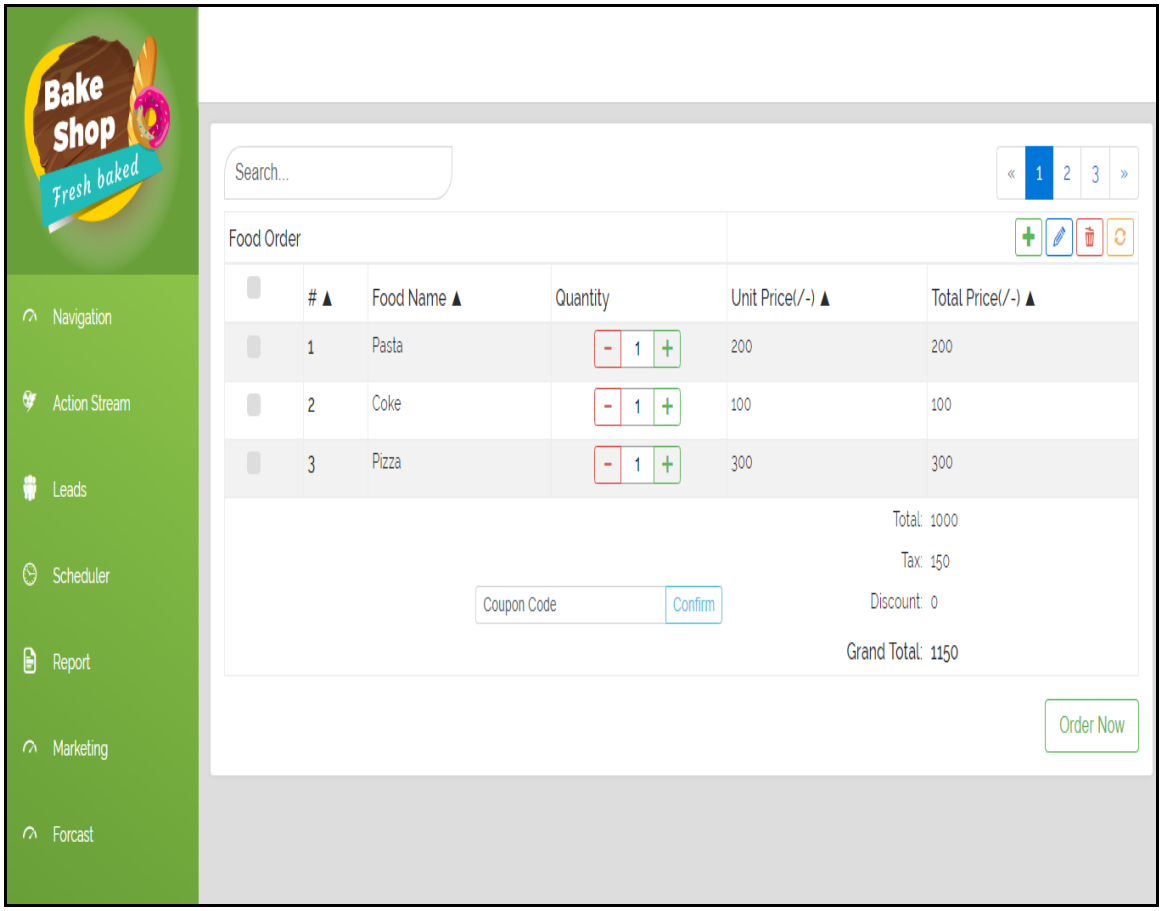

Figure 3.4: Admin Panel of DuPlate

Admin Panel Features

- Admin can receive the orders.
- Admin can manage the orders and invoice.
- Admin can see the whole status of selling and stocks.
- Admin can add products and offers.
- Admin can delete and update the products and other features.
- Admin can set delivery time and delivery person.
- Admin can change the menus and other staffs.
- Admin can press the coupon code and receive orders with coupon code.

E-Commerce site and Whole Management system development

Languages Used

- HTML5 and CSS3 for making the skull or colorized the site.
- Semantic-UI for designing perfectly for all the device optimization.
- Core JS(ES-6) and React JS for developing the functionality and Interactive features.
- Node JS, Express, Meteor for the server side language.

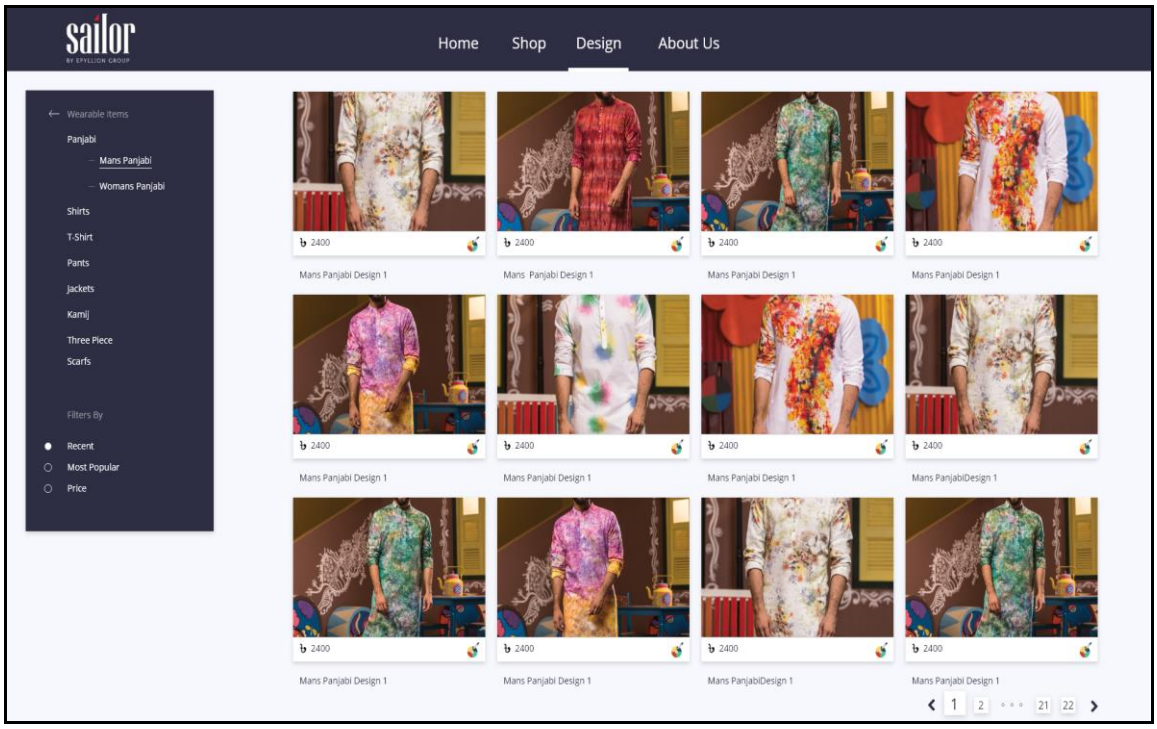

Figure 3.5: Front End (Products)

Front End Features

- Customers browse and select the products
- Adding to the cart.
- Order and receive the invoice.
- Edit the cart before the final order.
- Check products availability.
- Can add payment methods and pay through the system.

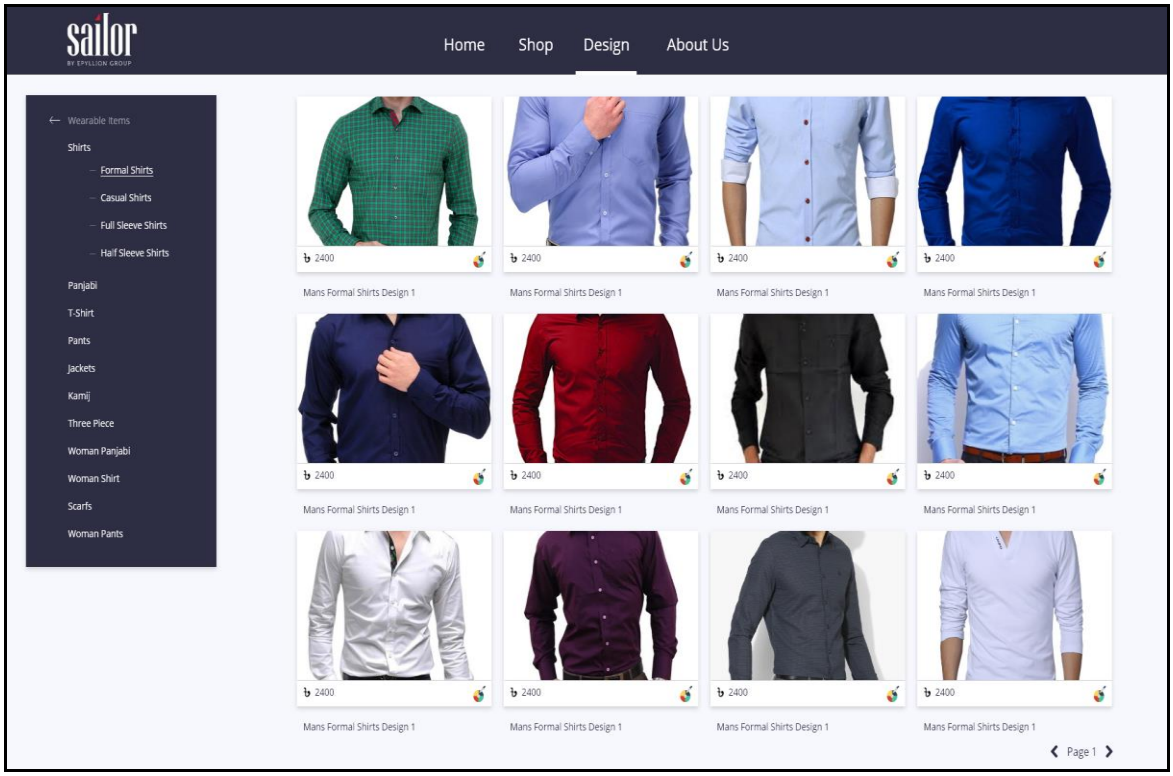

Figure 3.6: Front End-2 (Products)

More Front End Features

- Search and choose multiple product.
- Can add multiple products in a single order cart.
- Can delete the products from the cart before the checkout.
- Can change the page of same category products.
- Customers can contact with the sellers through the communication box.
- Apply coupon code and receive the offers.

Table 3.1: Other Front End Features

Other Front End Features	Present in this system
Create User Account	Yes
Delete and modify User Account	Yes
All time Order/Purchase History	Yes
Live chat with the shop manager	No
Web RTC	Yes
B2B Feature	No
Cancel order done by mistake	Yes(Within 10 Minutes)

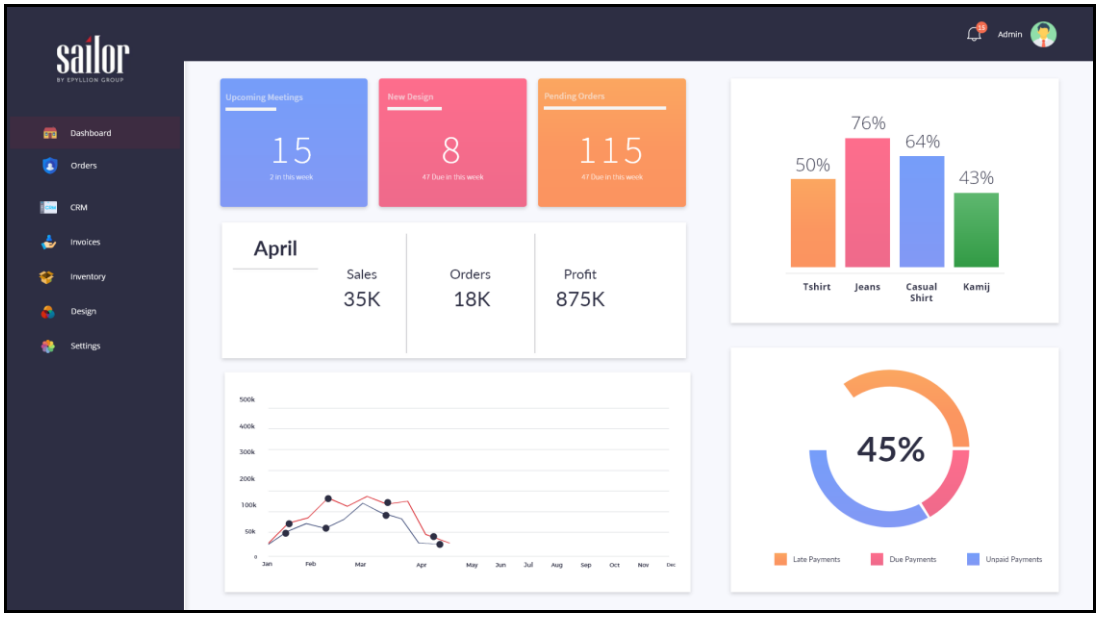

Figure 3.7: Back End Page-1 (Dashboard)

Back End Page-1 Features

- Admin can know the details status of the total selling and stocks.
- Can know the information on monthly basis.

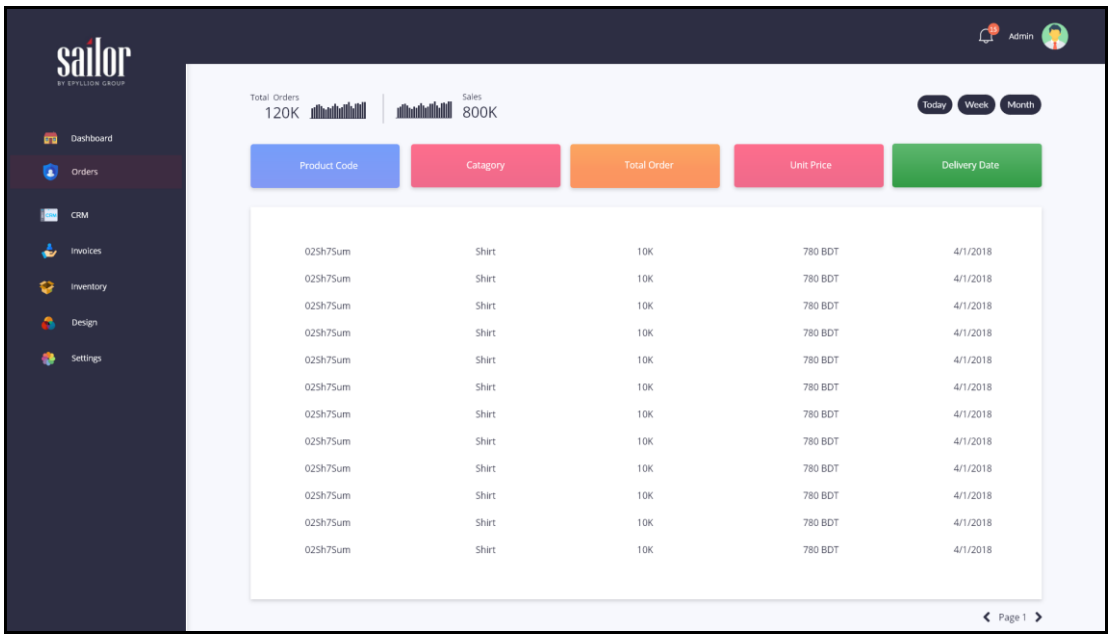

Figure 3.8: Back End Page-2 (Orders)

Back End Page-2 Features

- Admin can receive all orders of customers, check, validate and deliver.

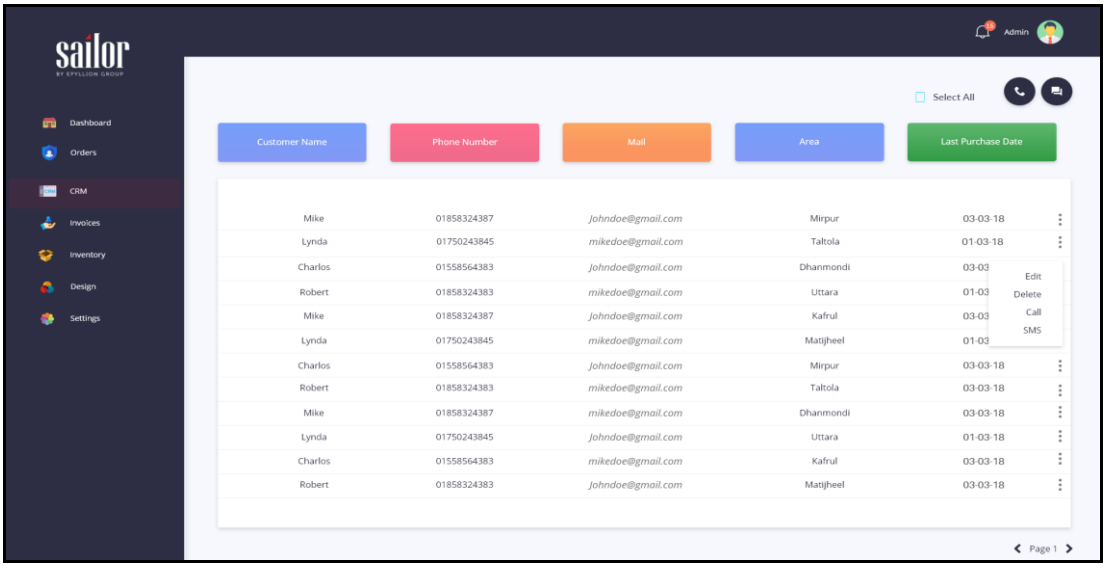

Figure 3.9: Back End Page-3 (CRM)

CRM Features

- Admin can check all the client or customers list and their address.
- Admin can get the contact address and mobile number to call them.

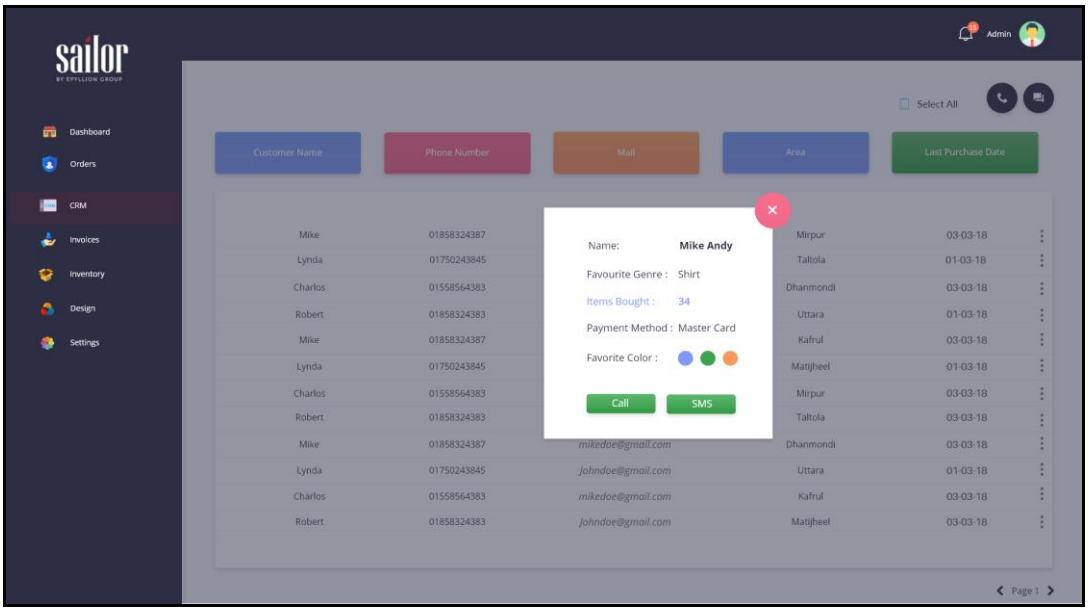

Figure 3.10: Back End Page-3 (CRM-2)

CRM-2 Features

- Admin can get the details on a pop-up by clicking on the client name.
- Admin can call or message the customer through the pop-up.

Figure 3.11: Back End Page-4 (Product Upload)

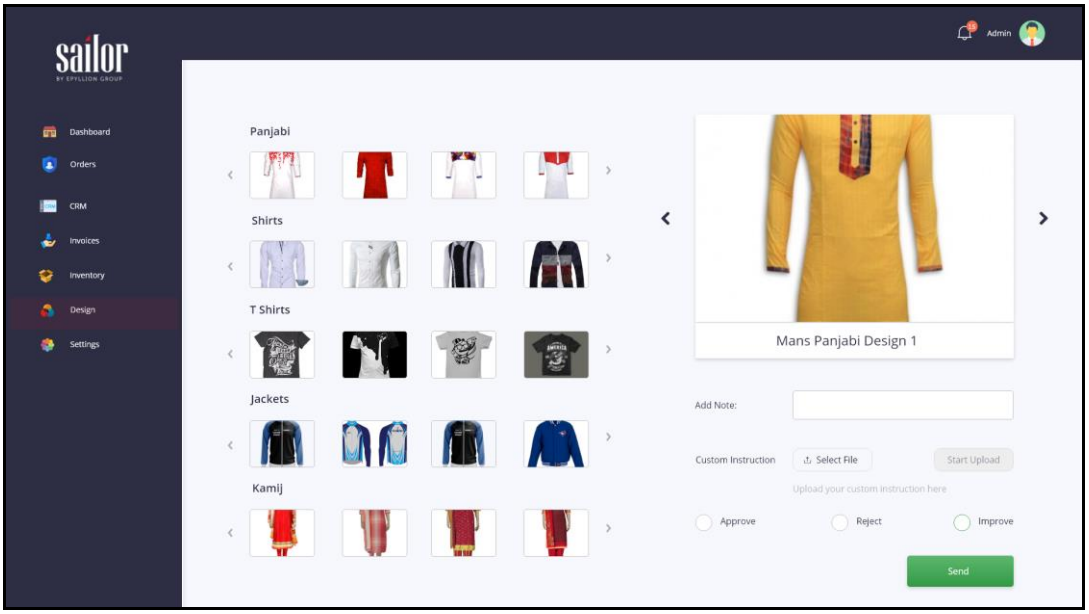

Figure 3.12: Back End Page-4 (Product Upload-Design Select)

Product Upload Features

- Admin can Upload multiple products.
- Admin can select multiple designs in the upload section.
- Admin can assign all the sizes available.

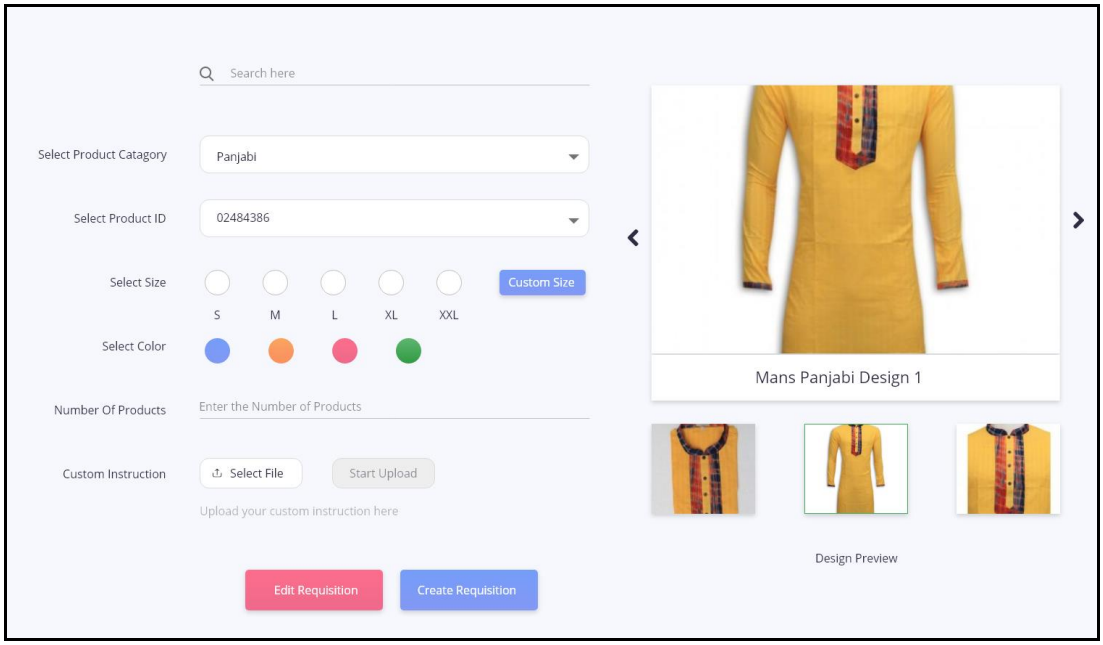

Figure 3.13 Front End (Order and choose size)

Order and choose size Features

- Customers can chose actual size from the various sizes.
- Customer can see the various type shaped design.

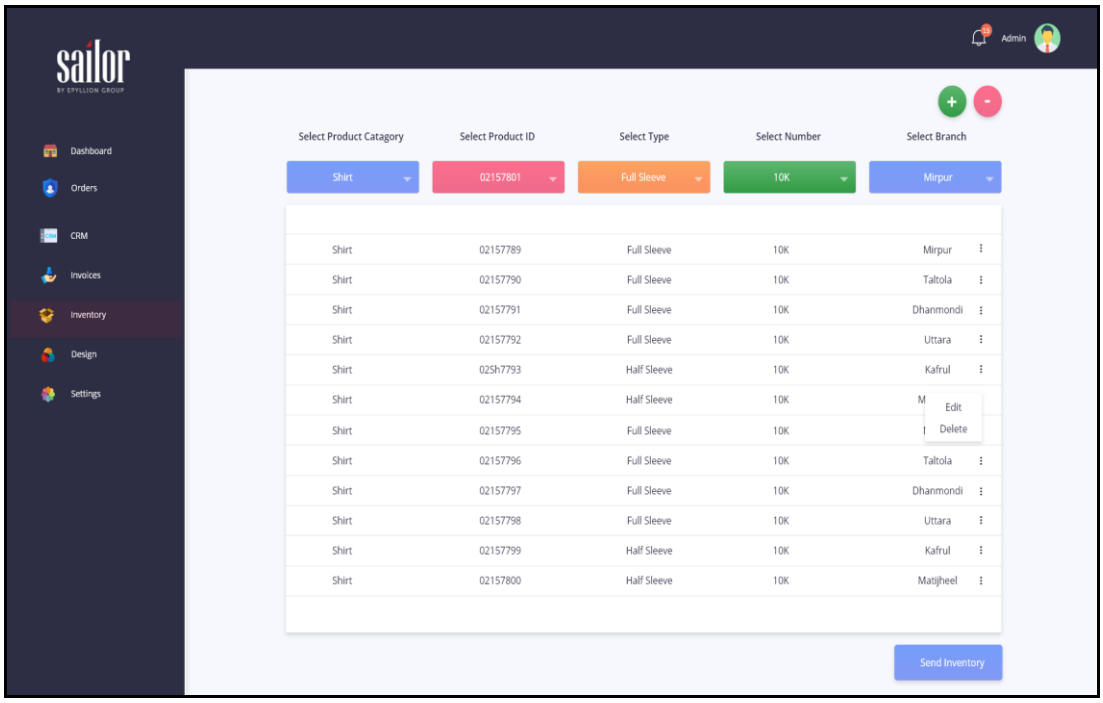

Figure 3.14: Back End Page-5 (Inventory System)

Figure 3.15: Back End (Intelligent Single Branch Dashboard)

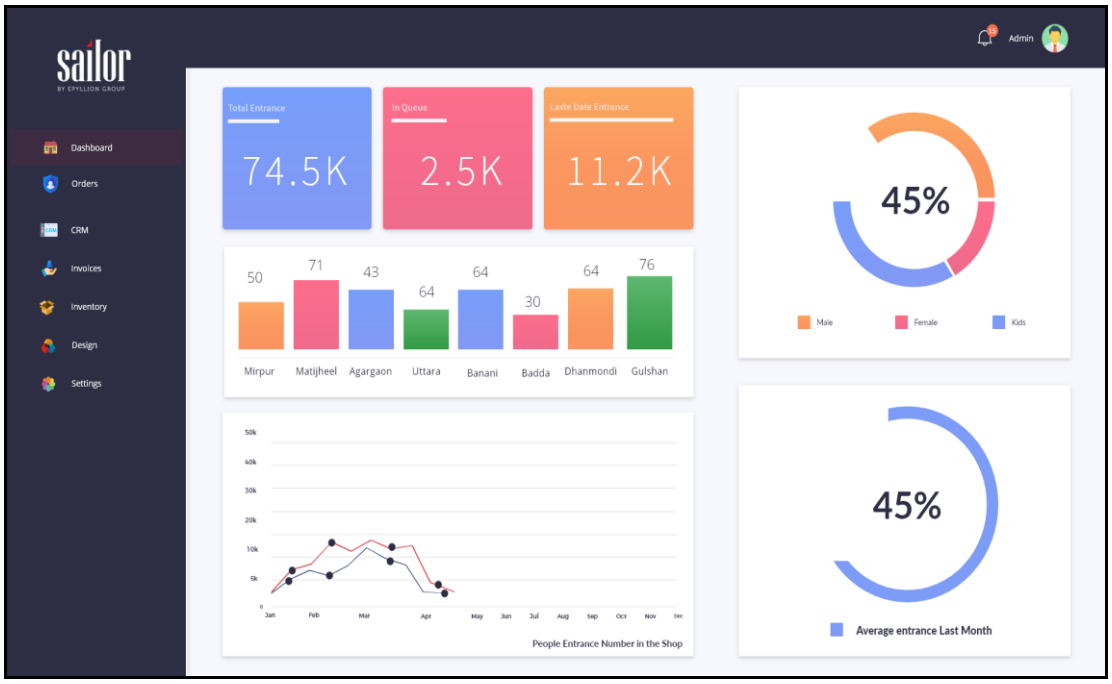

Figure 3.16: Back End (Intelligent Multiple Branch Dashboard)

Android Application for Prayer Times based on location

Languages and Technologies Used

- React JS for the functionality.
- Android Environment.
- Semantic UI for the Design.

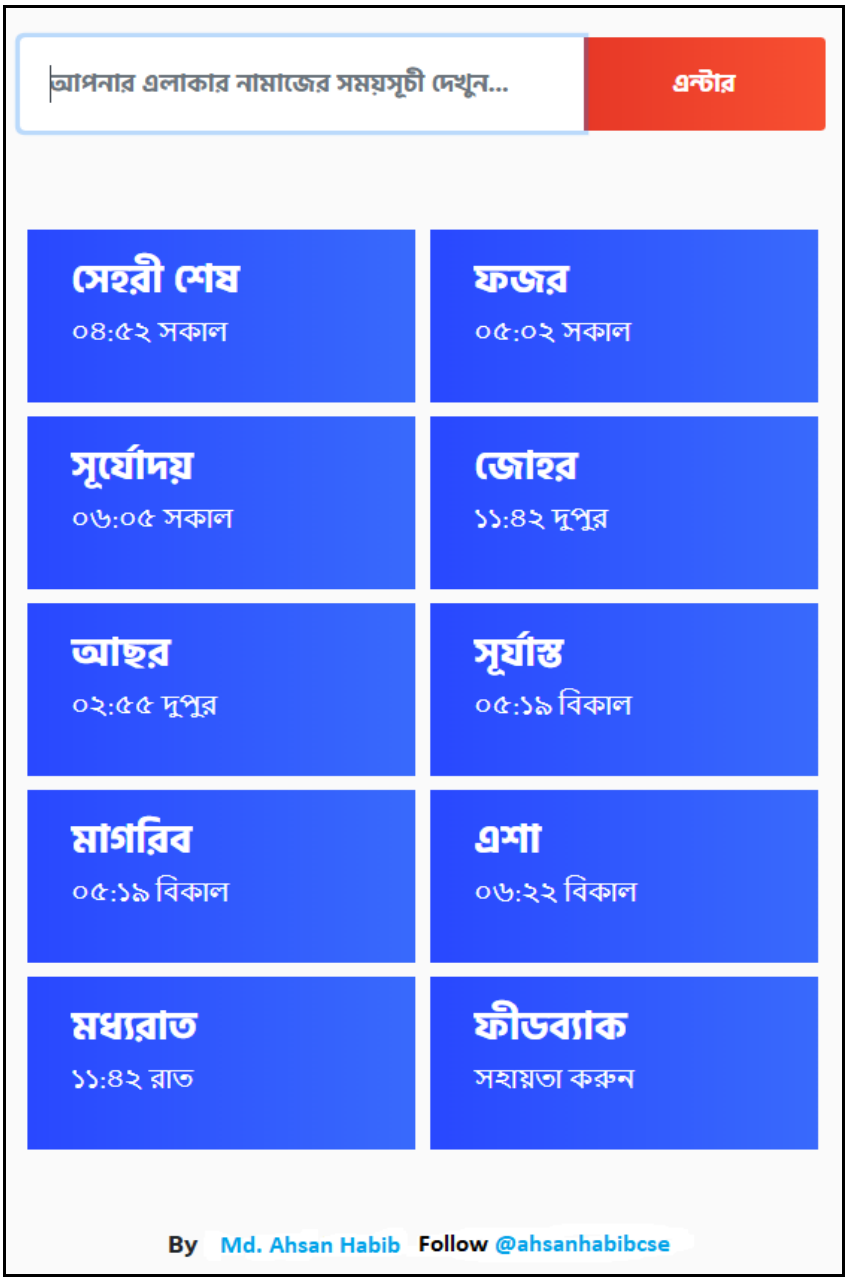

Figure 3.17: Prayer Times by Your Device Location

Figure 3.18: Prayer Times by Input Location

More Projects and Technologies I've worked with

Table 3.2: More Projects I've worked on

Project Name	Technology Used
School Management System	HTML, CSS, JS, PHP(CodeIgniter)
News Paper Themes	HTML, CSS, WordPress
Portfolio Websites and Themes	HTML, CSS, JS, WordPress
Corporate Websites	HTML, CSS, Java Script
Live Broadcasting Websites	HTML, CSS, PHP(CodeIgniter)
Communication Website and Android Application	HTML, CSS, JS, ReactJS, Java

Table: 3.3 More Technologies I've worked on

Technology	Expertise
Google Material Design	Expert 80%
Materialize CSS	Expert 95%
Semantic UI	Expert 90%
Bootstrap	Expert 95%
AJAX	Medium 75%
Angular JS	Medium 60%
Node JS	Beginner 40%
Laravel	Beginner 30%
Typescript	Medium 70%
VUE JS	Beginner 10%

3.4 Challenges

Facing many problems or challenges is simple during the completion of a huge project. I've faced too, but overcoming is another experience for me. Even error solving and get done the projects has another part of fun and happiness. It may make one more confident to take the next challenges.

CHAPTER 4

Competencies and Smart Plan

4.1 Competencies Earned

I've worked with several projects during my Internship. I've done those job within the required timeline. So that I could say I'm enough mature now to do any kind of hard and challenging job in the ICT sector related to Full Stack Web Development and Web based Android Application. For this dynamic challenging time I'm totally prepared for the career. I've hand to hand experience for making the super dynamic sites and Android Application with the new age technologies.

Even I'm fully prepared for learning new technologies within a short time. Now many more technologies come daily and controlling the trend. I'm totally ready for taking those challenge.

4.2 Smart Plan

I've already planned and mapped my career for enhancing and creating the outstanding web technology. I've planned about to beautify my future by the following steps:

- Working with the new challenging job.
- CV and Portfolio making for tracing the better career.
- LinkedIn Profile and Github Profile enhancing.
- Up to date myself with the technology.
- Continuing work for remembering my gained knowledge.
- Searching for doing new and creative arts and design.

4.3 Reflections

- Doing challenging job with a creative team.
- Creating something outstanding for my country.
- Learn more technology.
- Start an Initiative for making the new opportunities.
- Creating something for the nation.
- Working with the technology use for mankind.

CHAPTER 5

Conclusion and Future career

5.1 Discussions and conclusion

I've learned so many things in this internship. How to manage a project and manage the timeline were the most important topic. Knowledge about various Web and Android Application technology can help me to find the better career than other. SDLC process for the huge project and making a SDK and well Documentation were other experience I've gathered. Again working in collaboration with a team experience will help me to enhance my step forward.

5.2 Scope for Further Career

This internship and knowledge will help me to utilize my future career. Still I've some limitations on my knowledge and I've to learn more. But my present knowledge can help me enough to trace the best career of the century. I'm seeing the following future career can be my target:

- Good knowledge on JS can help me to work with dynamic and creative jobs.
- There is not so much JS developer presently so that I could get in a higher profession on any IT company.
- Several knowledge about web and android technology can pick me to the leading IT company.
- Besides Web ad Android knowledge I've others knowledge for project management and collaborative work will help me to get the best career.

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APPENDIX

Appendix A: Internship Reflections

First I've decided for the internship for enhancing the career for the new challenging time on the career market. Every student should gain some experience of hand to hand project in real life for utilize the knowledge. This internship made me ready for tracing this challenge.

Now I'm totally prepare for any kind of challenging and dynamic job. This experience helps me to be confident about my future and I'll be always pleased to Popular IT Limited for such kind of help on my career.

Appendix B: Company Detail

Popular-IT Limited

Website: https://popularit.com

Website 2: https://popular-it.com

Website 3: https://themesbazar.com

Email: info@popular-it.com

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