Senior Design Project Report

CSE 499 Section 2

Project Title:

Dealership Management System

Submitted To

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AGGREMENT FORM

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ABSTRACT

With the advancement of science and technology, we have entered into a digital world where anything and everything is available within the grasp of our hands. We can see and do everything with just a few clicks and taps from our computers and mobile phones. With the development of the Internet, everything is becoming more digitalized. Nowadays, People are more connected via the Internet and they prefer the digital system instead of the traditional analog system. Currently, online shopping is becoming very popular and with this increasing popularity, a dealership management system can be considered as a game changing opportunity for some individuals. Our system has a huge market opportunity in the current existing market system. So, in order to keep up with the current market necessity, we want to build a software that will help the dealers to connect with their desired companies without any middle men. In the traditional way, the user had to use pen and paper to do complex calculations, make a list of products, take notes, manage contact numbers and maintain many other things. But we want to provide the user with all these features and many more within a single application. We want the user to have a hassle-free experience while using the system. We want to help the user to access this dealership management system from anywhere with a device with internet connection.

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Has two different sections for different type of user 11

If our user wants to use only one part, it is possible to use only DSM-SITE or EMART alone. 11

Our proposed system is very flexible and easy to integrate. 11

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Chapter 1 – Overview

1.1INTRODUCTION

A Dealer Management System (DMS) is a web application that provides the tools auto dealers need to more effectively run their business. By bringing together the many parts of a dealership on a single interface, DMS platforms allow business owners to monitor dealership operations more efficiently and see the big picture more clearly.

Dealer management systems enable a its user to perform all the day to day functions their dealership encounters from sales operations, financing operations, service operations and more. With a DMS, dealers can improve each facet of their business through combining all the tools they need into a single platform. With all the daily transactions their dealership encounters in one place, they can run their business more easily. It is no longer needed to log-in to separate solutions to manage their inventory, create point of sale invoices, view service history or follow-up on leads. Through the software integrations available with a DMS, dealers can manage their entire business in one cloud-based dealership software application allowing business owners to more easily monitor all dealership operations and see their transactions more clearly.

There is also an android WebView app available. This will allow the user to manage their system from anywhere using their phone.

The DMS will make managing a small business an easy task by integrating every part of the business into one place, so user will not need to manage a couple of complicated system to run their business.

The DMS system is suitable for both big and small business owners, so anyone can use the system. The system can also be used in various type of business with a little modification. That is because it has two different sections for different type of user. If our user wants to use only one part, it is possible to use only DSM-SITE or EMART alone. So this one system can work for a big range of people for a huge amount of business.

1.2PURPOSE OF THE PROJECT

At this moment there are very few systems available for the wholesale dealers in the market which can serve their needs and most of the dealers use the traditional tally Khata to maintain their daily sales. The purpose of our system is to help these dealers to maintain their daily sales and transaction in a more efficient way using modern day technology. Our system also has a separate ecommerce section. So, our users will be able to use DMS for maintaining their dealership as well as use EMART for their online business.

1.3 GOALS OF THE PROJECT

- Build a system that serves the best for the dealership owners.
- Build a system that can be easily handled with a little training.
- Provide an ecommerce site for the user to sell the goods in online platform.
- Provide two independent sections for dealership and ecommerce, so that our user doesn't require to use one for the other.
- Develop an android application for this project.

1.4 FUNCTIONS OF THE PROJECT

i. Helps to maintain a business

The main function of this project is to help a man or woman to maintain the business.

ii. To organize all the data

The system also works for organizing all the data.

iii. Analyze all data

Another function of the system is to analyze all the data that are available about the product. This works great.

iv. Keep track of all order

A lot off products are sold, keeping track of all of them through the system is really easy.

v. Save company info

All info about the company any all other company that are being dealt with, are saved in the system.

vi. E Mart to sell online

E mart is an important function of the system. A lot of product are sold online nowadays, e mart the e commerce part of the system.

1.5 FEATURES OF THE PROJECT

i. Sales reports

One can get sales report from this system, that's an important feature of this project.

ii. Sales history

We can find sales history that is also an important feature.

iii. Purchase details

Since this is a web based system, purchase history is saved and that is also an important feature.

iv. Transaction

There is also transection feature available, people can make transection through this system.

v. Product ordering through E-mail or in-person.

Since this is online, Orders can be made through online or in person.

vi. Android WebView app

This system will also feature a basic android WebView app

1.6 BENEFITS OF THE PROJECT

Suitable for both big and small business owners.

Since this system is mainly online based and easy to operate, this system is suited for both big and small business.

Can be used in various type of business with a little modification.

This is a relatively flexible system, so it can be used for a lot of businesses.

Has two different sections for different type of user

This system has DMS and EMART, that is usable for two different type of people.

If our user wants to use only one part, it is possible to use only DSM-SITE or EMART alone.

One can use either one or both systems. So, the system is applicable for a huge range of people.

Our proposed system is very flexible and easy to integrate.

This system is easy to integrate in any kind of business very easily. Also it is extremely easy to use and user friendly.

Chapter 2 – System Design

Our proposed system has two sections which are independent of each other. The proposed system has a separate portion named DSM-SITE for dealership owners and another portion named EMART for vendors who wants to sell their products online.

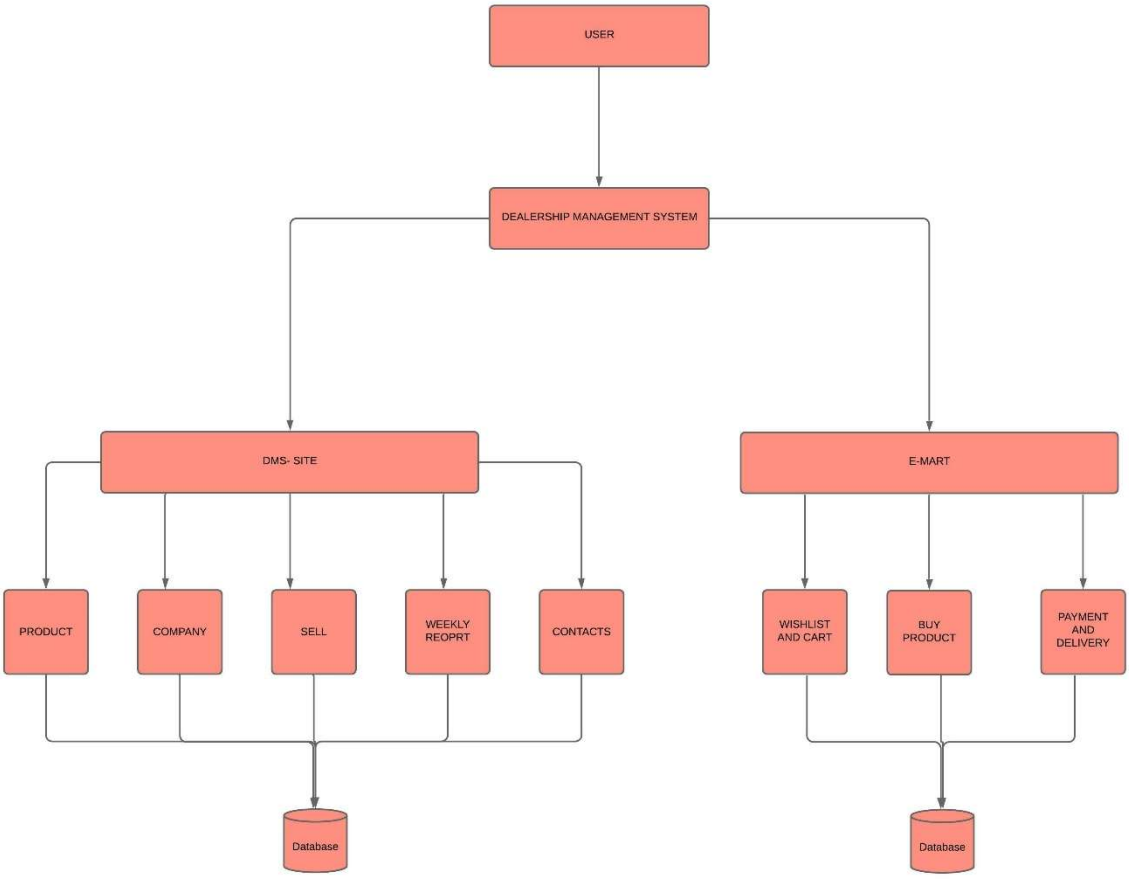

Figure 1:System Design of DMS

DMS-SITE

In this section the dealers will be able to add, update and delete their desired products. They can also store their important contacts and necessary information of supplier companies. They will also be able to get reports on daily or weekly basis. All the sold products will automatically be stored in the SELL section. The user would be able to generate an invoice for the transaction. There will also be barcode and QR code scanning system so that our user can find his desired product quickly in the warehouse without any hassle.

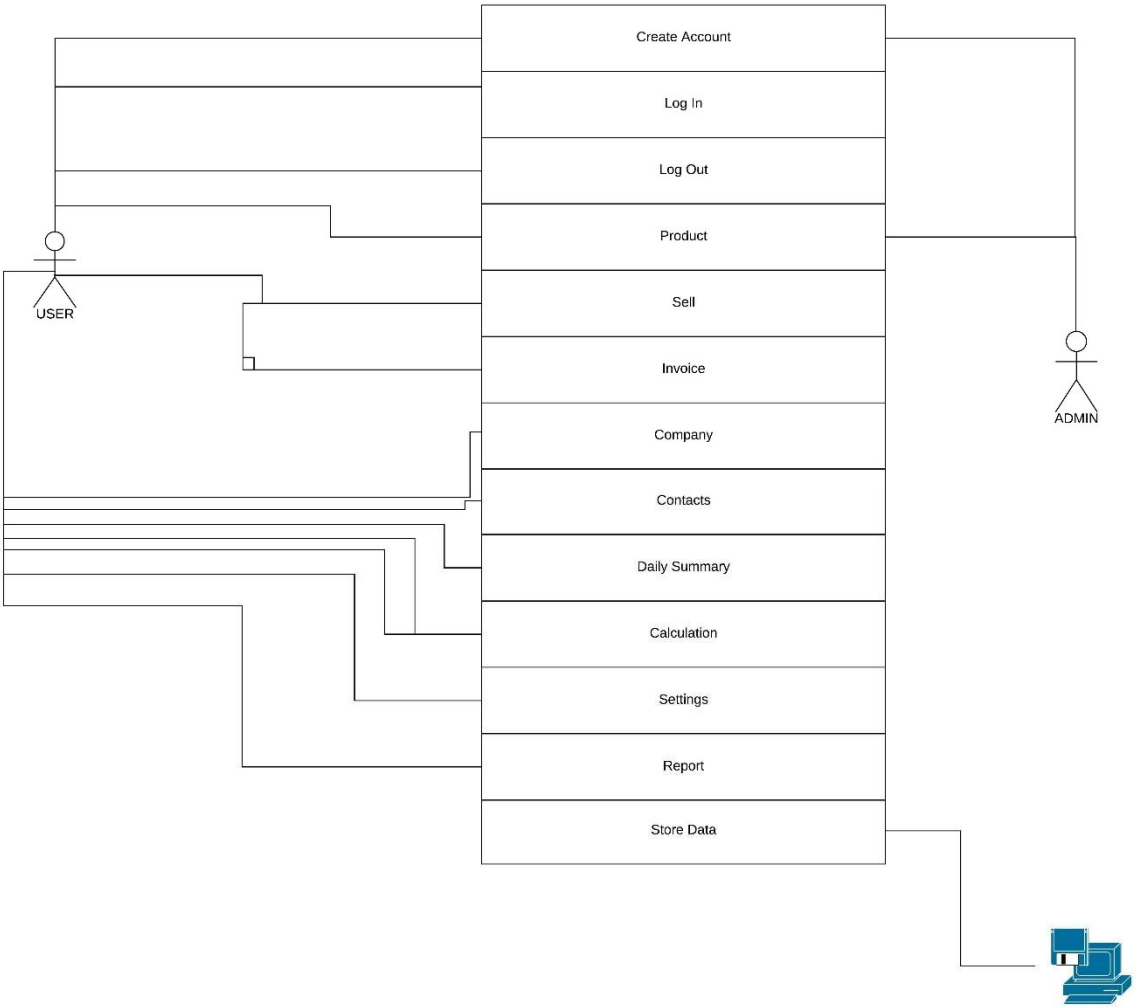

Figure 2:Design of DMS

EMART

This section of our proposed system is very easy to use with a very user-friendly interface for both our admin and user. This system will be suitable for an ecommerce business. Our is designed in a way where our user will hardly face any difficulties. It has all the necessary segments to run an ecommerce business, for example, the user will be able to upgrade or reduce the storage quantity and he will also be able to set the delivery charge according to the distance and transportation charge. For now, the user can get payment using Bkash and Cash on delivery.

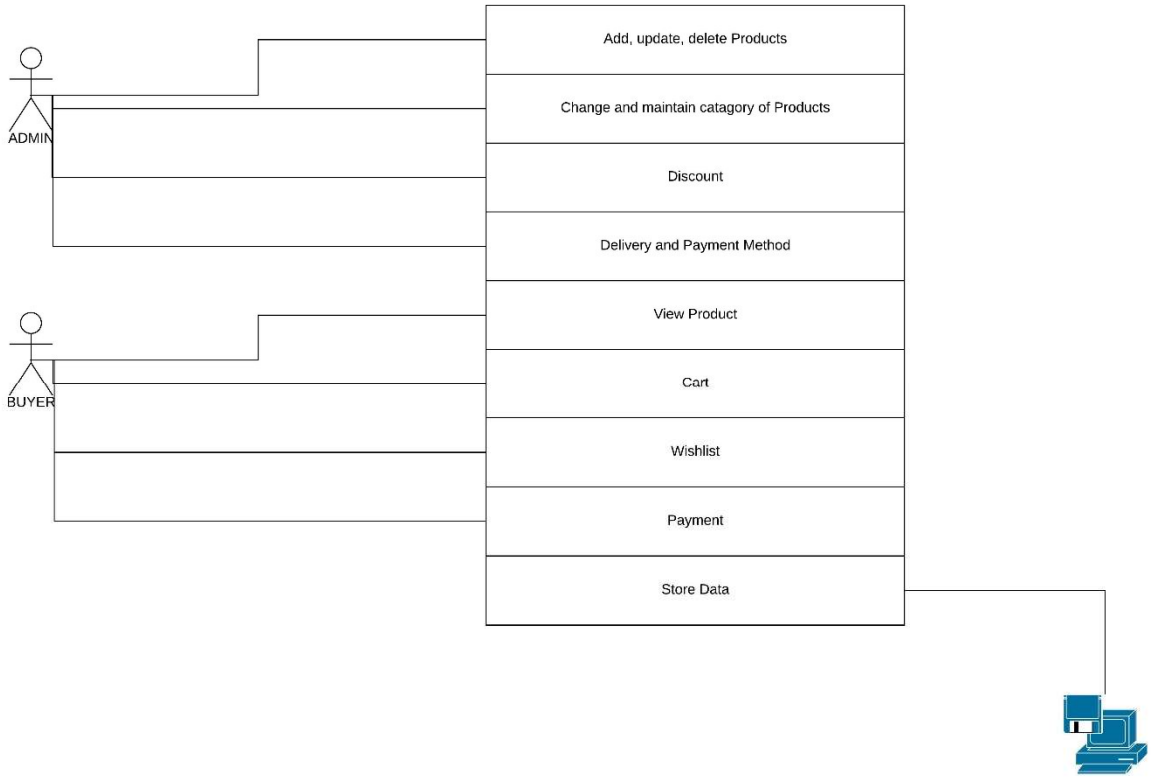

Figure 3:Design of EMART

Chapter 3 – Impacts and Constraints

3.1. Impacts:

- The traditional business in Bangladesh normally maintains a tally book for keeping track of financial history. Through this software, businesses can maintain financial history online. This eliminates the risk of losing track of financial history and makes book keeping easy.
- Another benefit this website can give is it makes auditing easier which helps in tax calculation and company audit. Normally auditing is very time consuming and requires a lot of people. This system will make auditing a lot easier for the user of the system. He or she will require less people and a lot less time. The system will not face any problem regarding the ups and downs of the market.
- Normally keeping track of products is really difficult on stores. Most of the time it requires a lot of people to work for hours. This system will make keeping track of products a matter of little time. Using this system, keeping tracks on all existing products available in store becomes really easy.
- One of the benefits of this project is that there is no use of hazardous material or chemicals which might cause harm to wildlife. Nowadays wildlife all over the world are in grave danger and keeping them safe is really important to humankind. They are an integral part of natural environment. Since no wildlife will be harmed, there will never be a negative environmental impact.
- Our project can be put to a wide range of uses. With our Dealership management system software, dealers can improve their business structure through the combination and operation of various tools in a single online platform.
- This system can be managed trough any device on any budget. No need for expensive computers, one can manage this system from their android phones.
- Normal application-based systems are generally complicated and requires a lot of knowledge to operate. On the other hand, using this system requires little to no training. So, anyone can start using this system extremely quickly.
- There is two parts of the system, the DMS and the EMART. Since this system has two main part, one user can use either part or both part as he wishes. This makes this an

extremely flexible project that can work for a huge range of people for different kind of businesses.

3.2. Constraints:

- Since this is a DMS system, it can only be used for bulk sale. This system does not work for one or two products.
- As this is a bulk selling system, incorporating refund policy is extremely difficult. So, no refund policy incorporated into the website. If there is ever need for a refund that has to be done manually.
- This system does not offer auto receipt generation for the customer. If he needs a receipt, he has to contact the system admin to get it. So, no auto receipt generated during buying as a customer.

Chapter 4 – Methodologies

Modules:

User Design

It's all the little meeting places between a user and the computer program which is website. The interface is a set of commands or menus that help a user communicate with the program. User design determines how easily and intuitively a person can do what they need to do with your site.

Sales Management

It is about the method of selling the products. Companies sell products by seeking attention from customers. For this they add exciting features & offer discounts on several products. In the E-mart page, offers & discounts are shown on the upper side of every product which are selling at that price. By this, the companies attract customers & maintain their selling strategy.

Purchase Details

When a customer buys many products, details of the purchase will be shown here. It will calculate the quantity-wise total price of a customer on the basis of his/her purchase of products.

Transaction Management

It is also a part of storing record. When a seller sells any product & a customer buys it, there will be a transaction between them. Those transaction records will be shown here as Transaction Management.

Product Details

In this part, we worked to display all the information of each product. The admin of a company stores company product to attract customer by inputting the features of the product. The information of product includes Image, Price, Quantity & Description. Therefore, the details will be seen by the customer & they will be able to meet their needs according to price and description. Then the customer will buy the product of his/her choice.

Company Details

It helps us to acknowledge the information about the companies. Whenever the owner of a company adds his/her own company's information which consists of Company Name, Logo, Contact Number, & Address of main branch, the record is saved & displays on the part of **Company Details.** Customers can see & buy the products of their favorite companies, and also they can contact with the companies by the contact numbers.

Reports Management

When a customer buys a product, each of the product has its own quantity & quantity-wise price. In this section, all the purchase details of each of the product will be recorded as reports.

Settings

In this portion, admin or customer can change their password or username. Also in the profile settings, admins can edit their profile such as names, address & contact number.

Calculation

This part is about calculating the total trading in a month. Whenever a customer buys anything and/or a seller sells anything, the total price is added to the **Calculation** part. This will help to fetch the overall trading calculation in a month and the admin can acknowledge the loss or profit compared to the other month.

Chapter 5 – Result

Short Guide:

The welcome page. This page introduces the first-time user to the DMS system and help them, to get started on using the system. After that, we get the sign up page.

The sign-up page. This page let the user sign in to the system and create an account. The user can sign up with Gmail, Facebook or twitter. There is also a log in page

The log in page. If the user already has an account, this page let them log in to their account with necessary information. After logging in, there is the home page.

The Home page. This page contains all the other pages. A user can go from home to any other page that they need to use. From home page, we can go to the product page.

The product page. This page shows the newly added products and their relevant information. From here, we can go to all products page.

The all-product page. This page will show all of the products and their information. After that, we have sell page.

The sell page. This page shows the number of sells for each product and necessary information. From here he can go to add product page.

Add products page. This page let the user add any new product and their info to the DMS.

The buy page. This page shows information about the purchases the user has made.

Sell report page. This page shows they monthly and yearly total sales figure.

The invoice page. This page shows an invoice that contains all the products, sales figure and total cost. From here, we can go to the pro=into invoice page.

The print invoice page. This page let the user print the previously shown invoice. After that, we have the company page.

The company page. This page shows all the companies that are doing business in the system and their details. From here, we can go to add company page and edit company page.

The add company page. Here the user can add another new company and their details in the DMS.

The profile page. This page shows the profile and details about the user. From here, we can go to the contacts page.

The contact's page. This page shows all the available contacts and their details. From here, we can go to the add contact and edit contact page.

Add contact page. In this page, the user can add new contacts and their details.

Edit contact's page. In this page, the user can edit and modify the existing contacts.

Edit company page. This page let the user the existing companies and their details.

Settings page. This let the user modify and change any necessary settings or options.

Edit profile page. This page let the user edit their profile and modify any information.

The QR code scanner page.

E-MART

The home page. This page contains all the other pages. A user can go from home to any other page That they need to use. From here, we can go to the displayed product page.

The displayed products page.

The Wish list page. User can save any products for later purchase.

The Cart page. User can edit the quantity, change address and remove products from the cart.

The Checkout and payment page. This page shows an invoice that contains the products, sales figure, and address of delivery, payment and total cost.

SCREENSHOTS:

Here are some main screenshots:

DMS

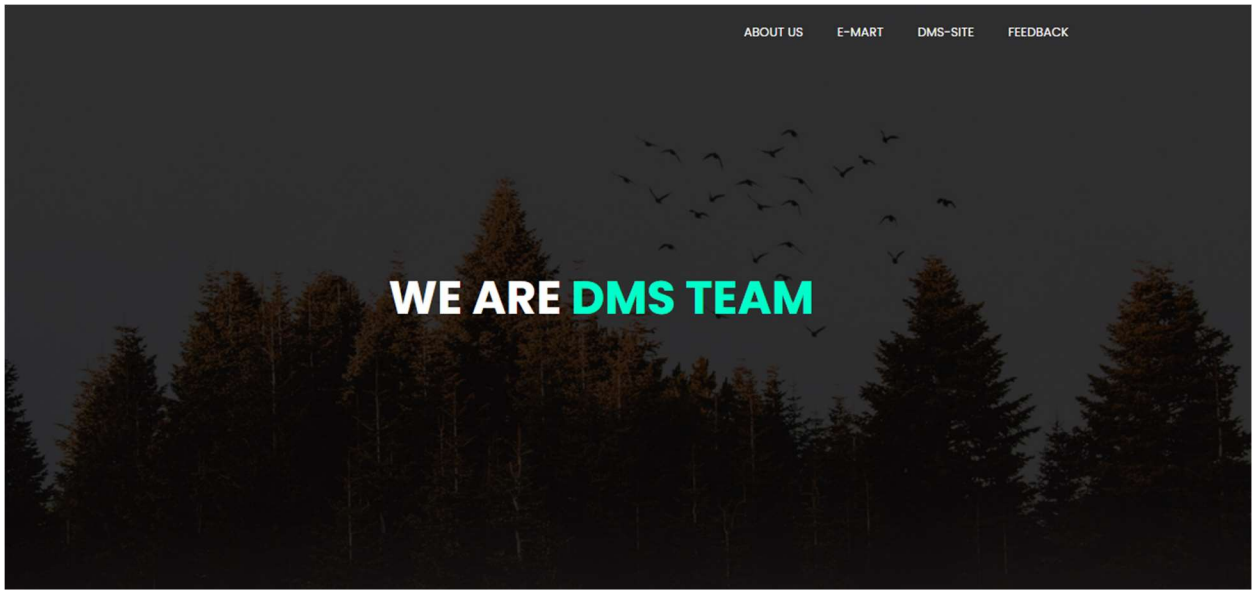

Figure 4: Welcome page

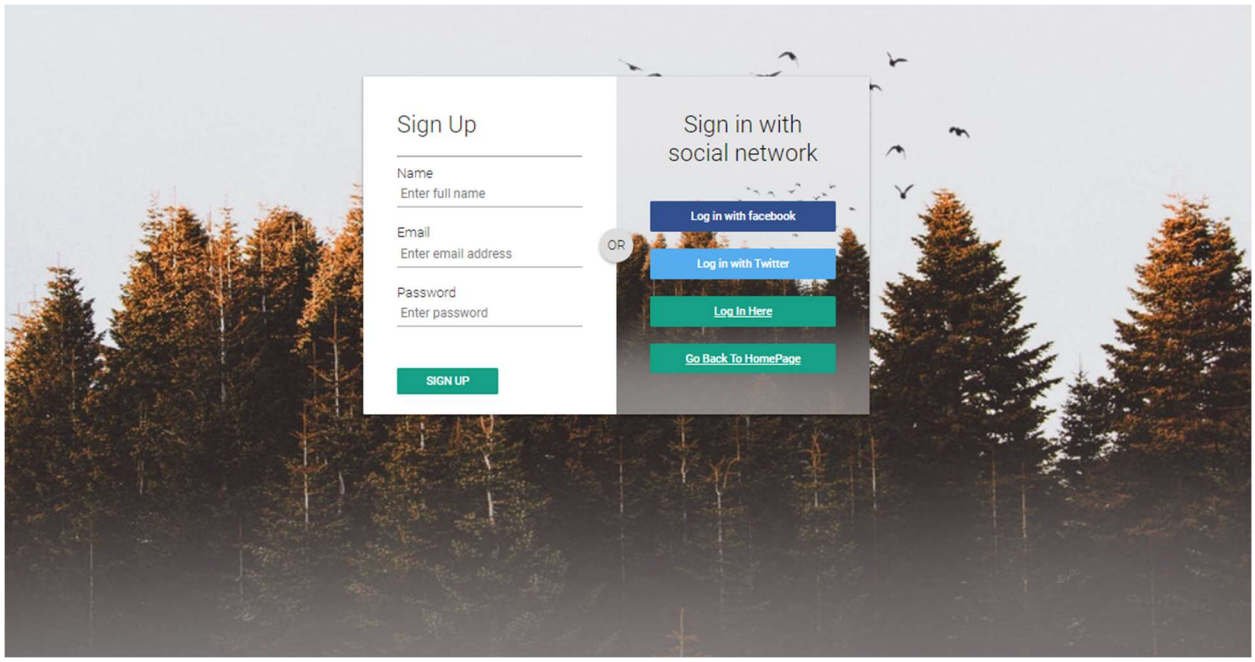

Figure 5:Signup

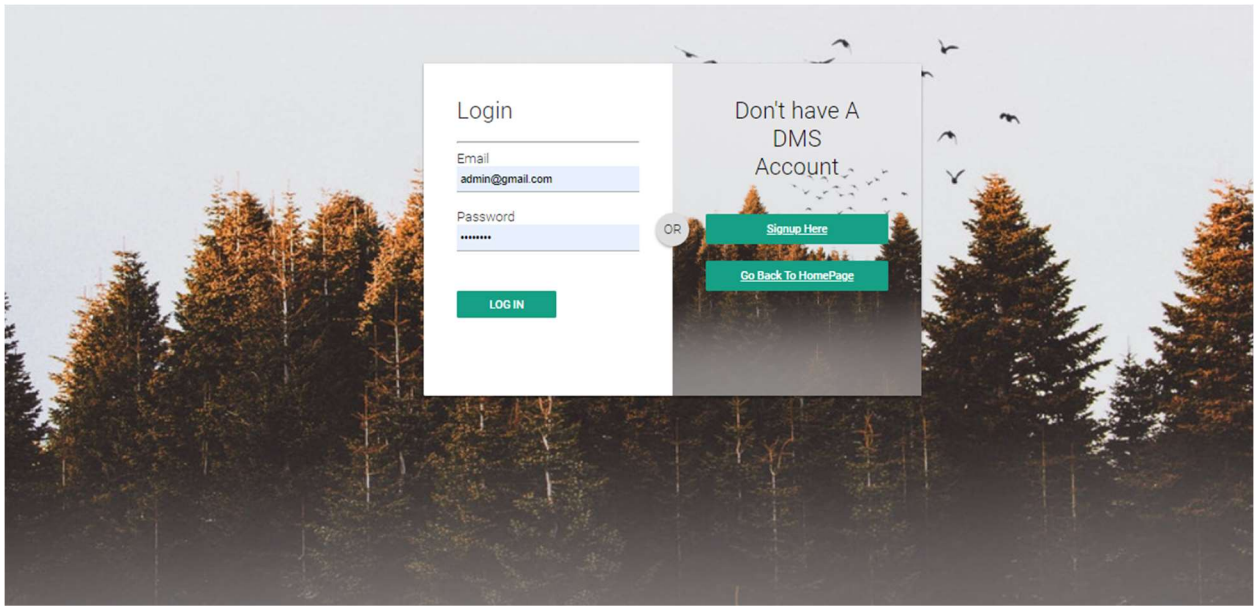

Figure 6:log in

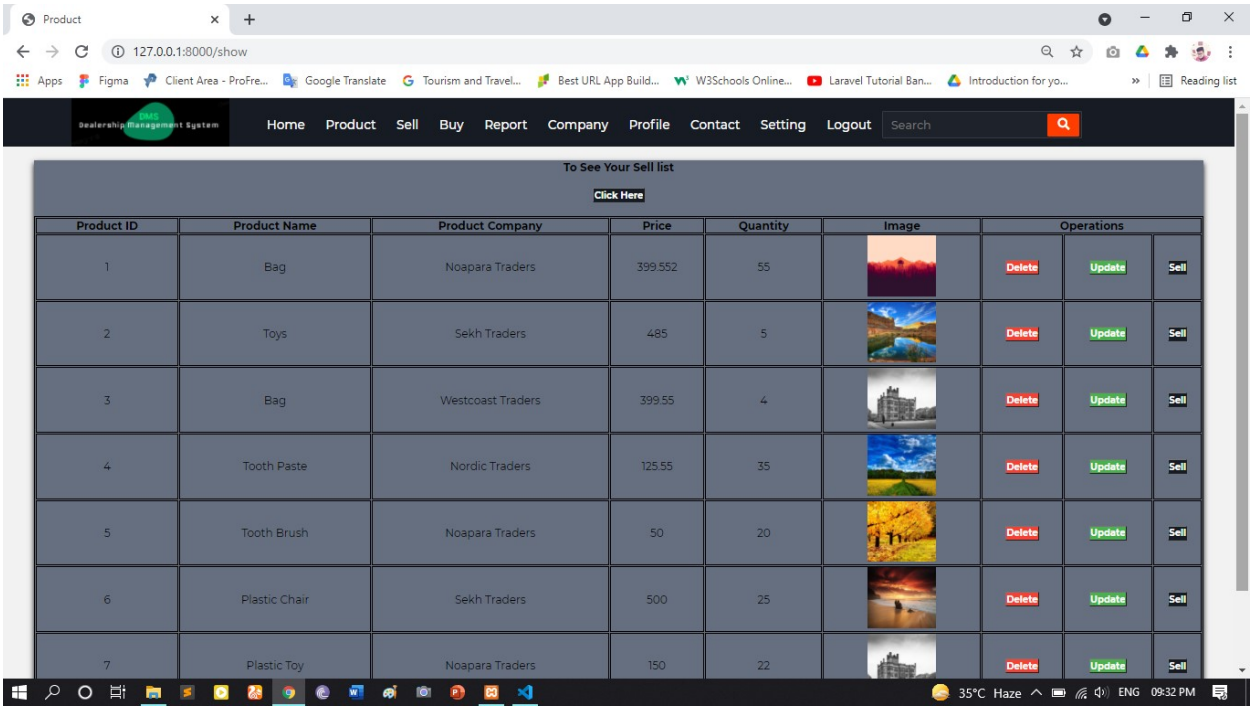

Figure 7:All product Page

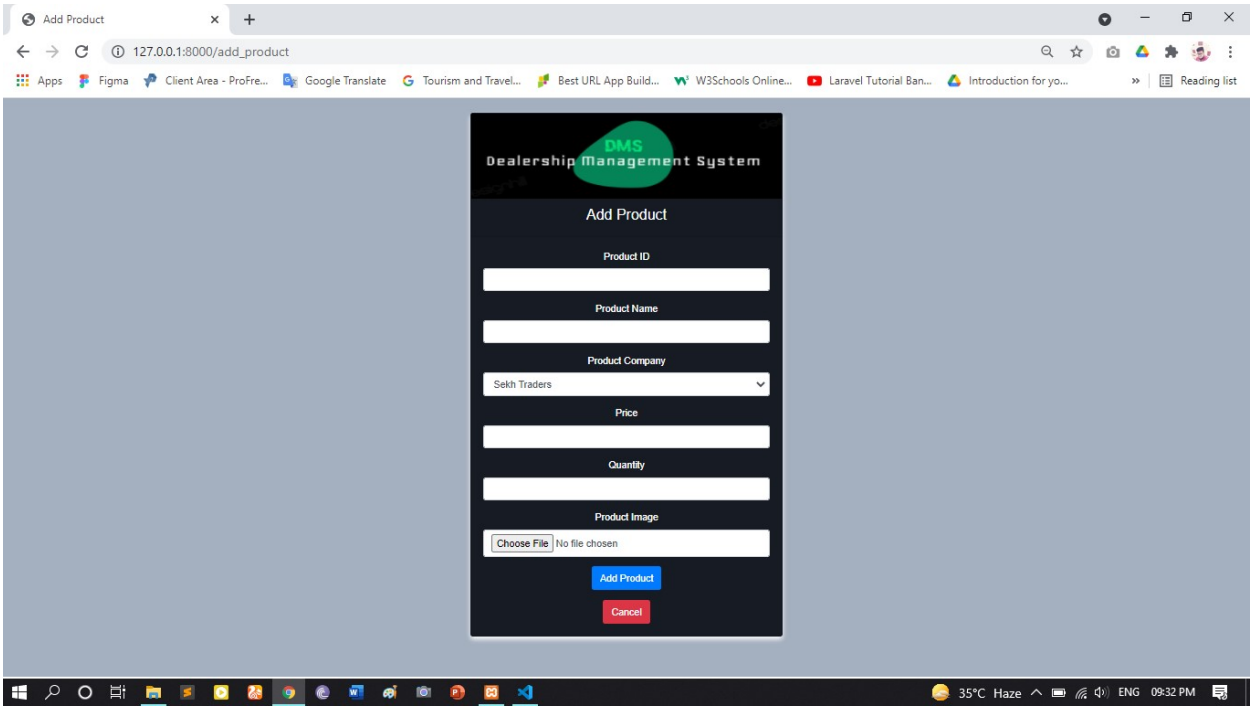

Figure 8:Add product

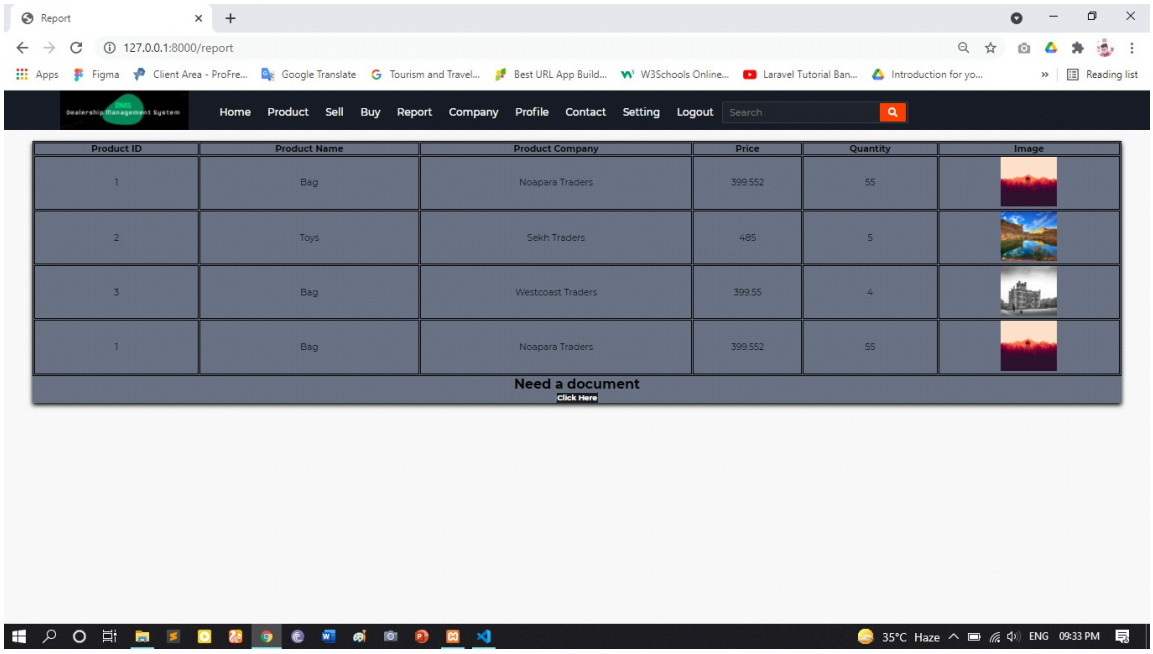

Figure 9:Sell report

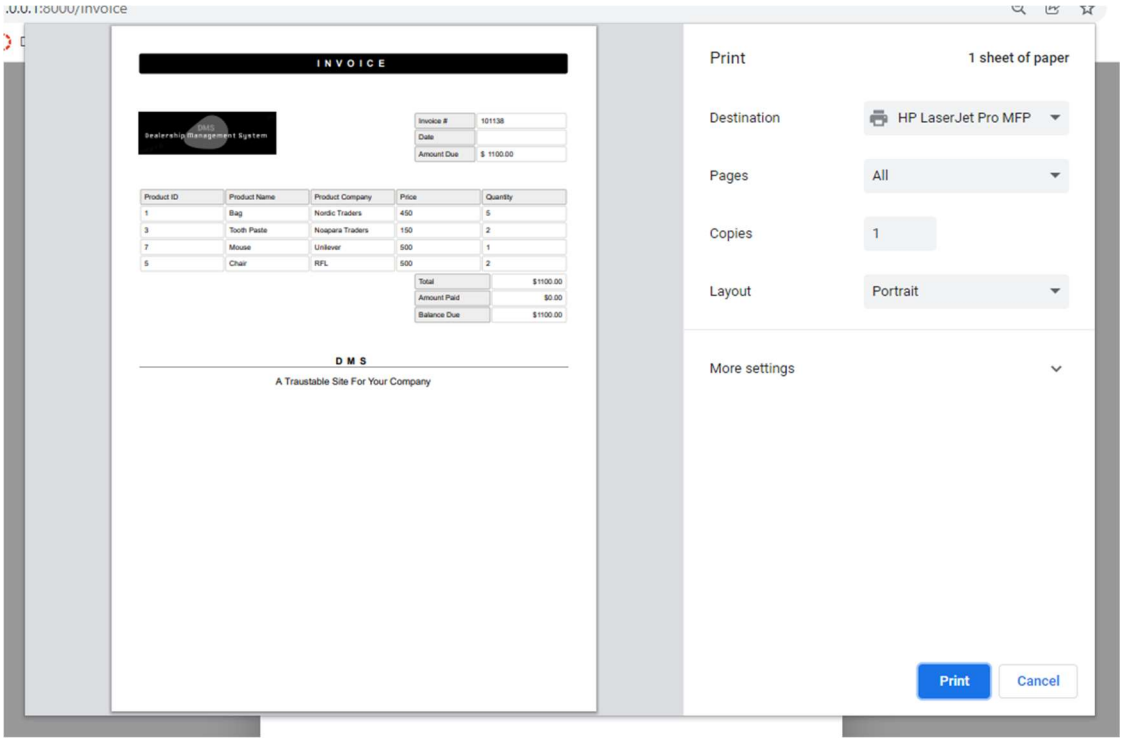

Figure 10:Print Invoice

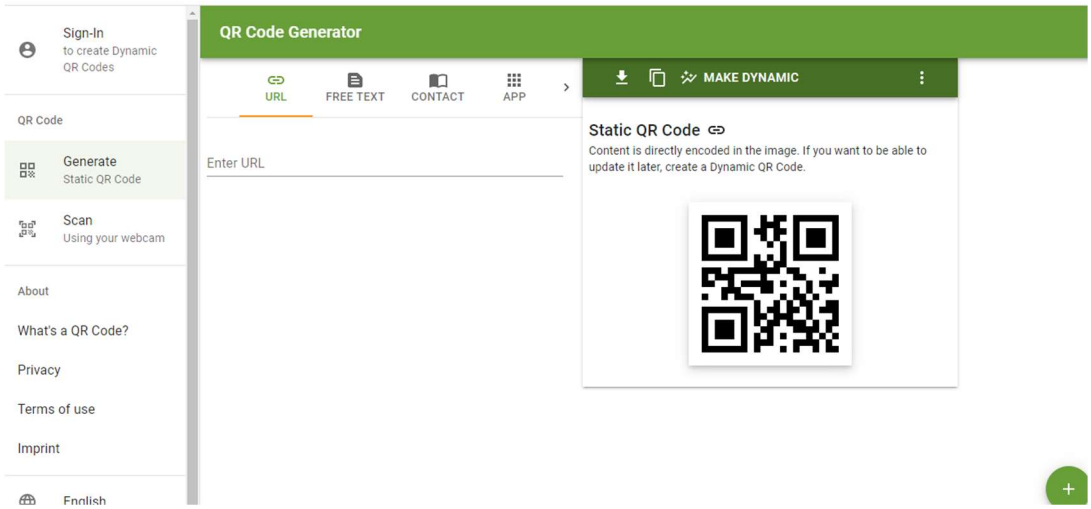

Figure 11:QR code

E-MART

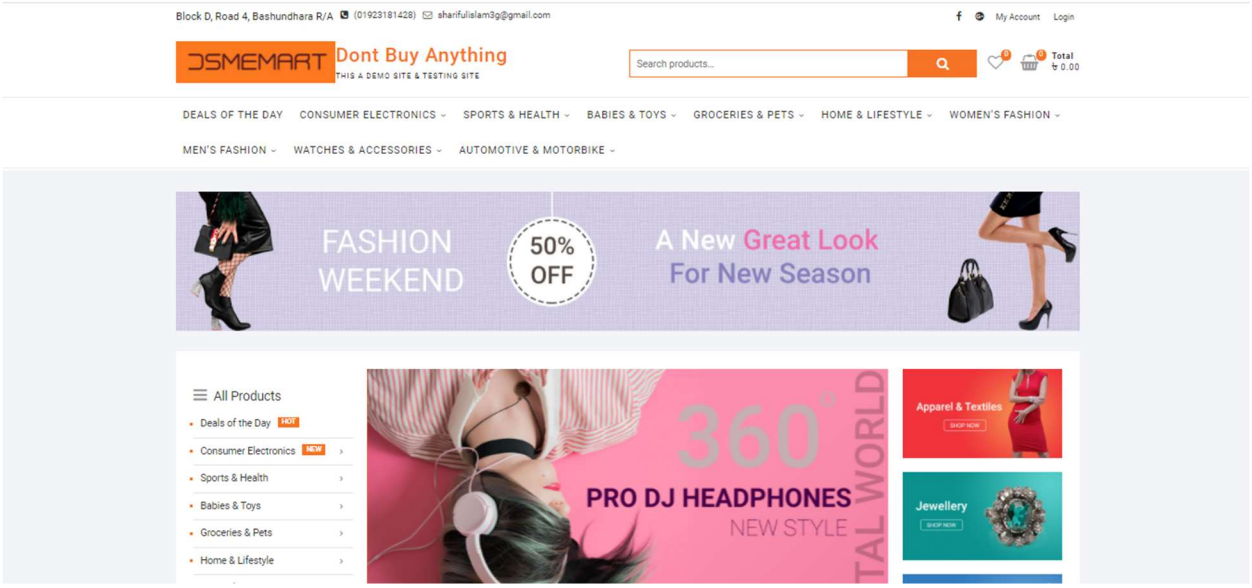

Figure 12:Home

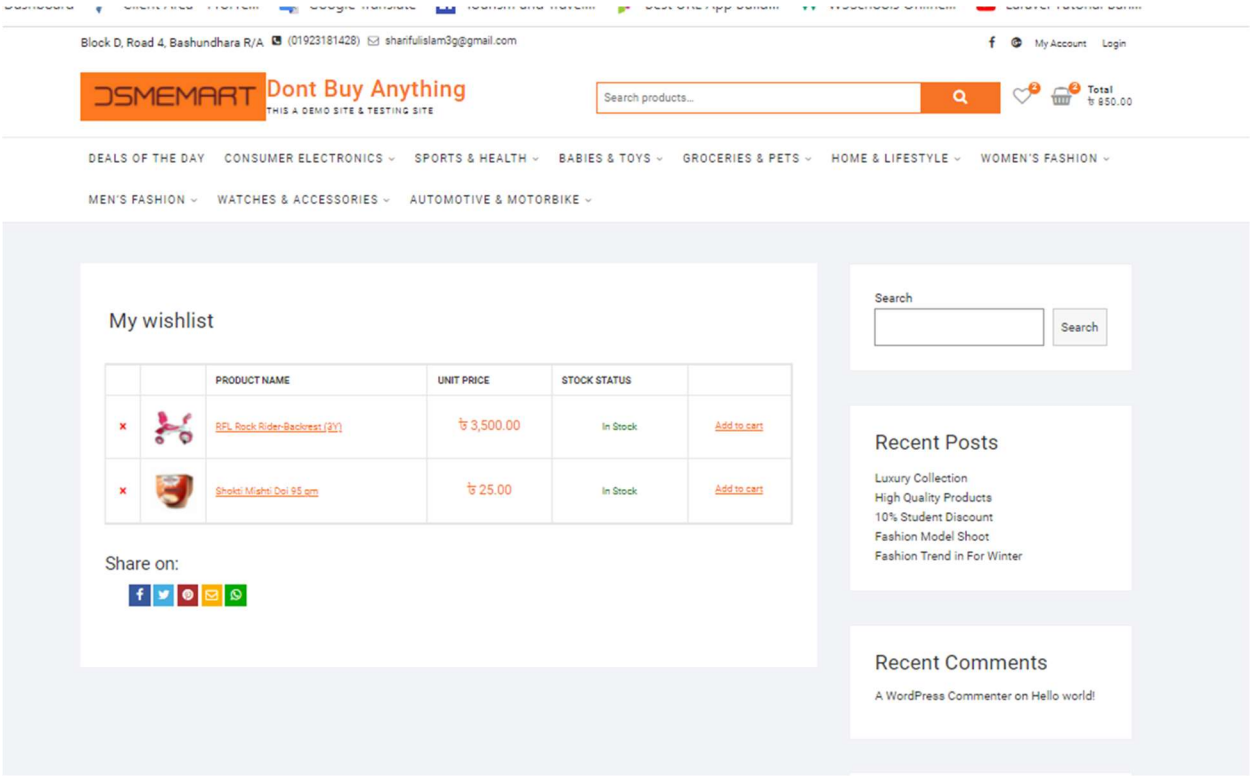

Figure 13:Wish list

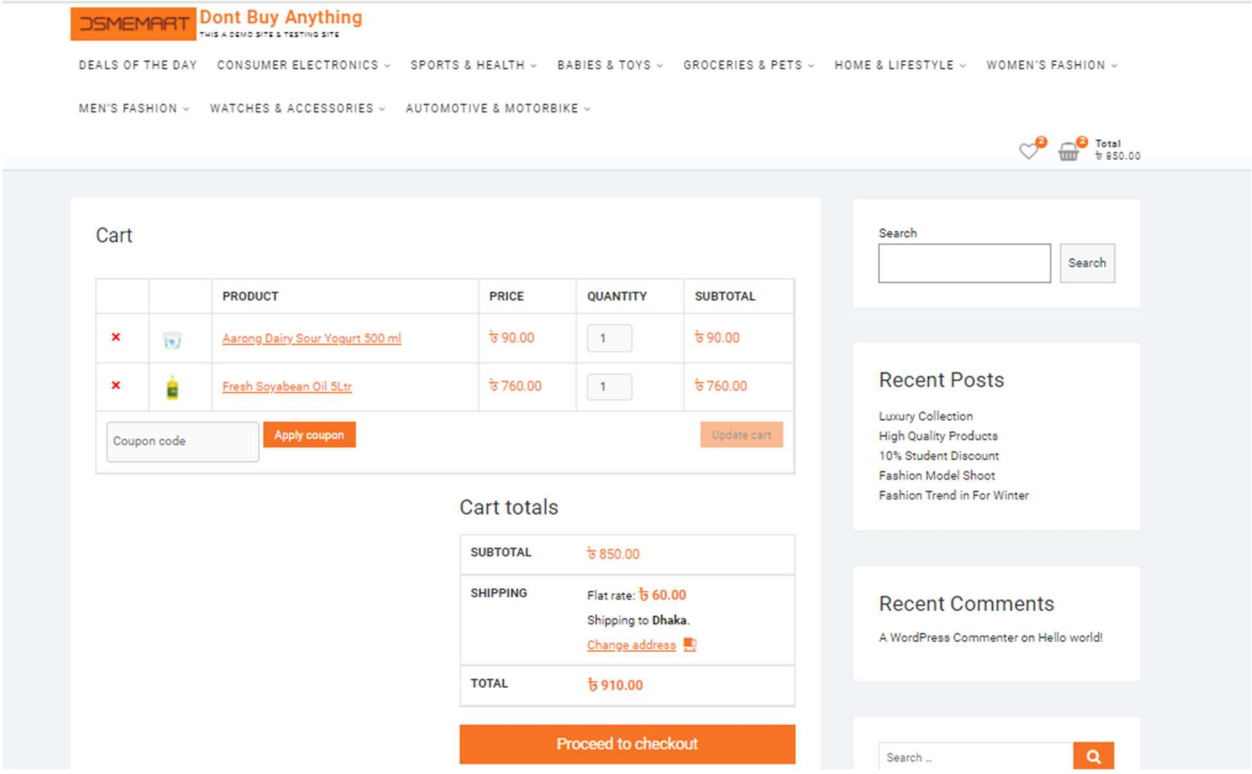

Figure 14: Cart

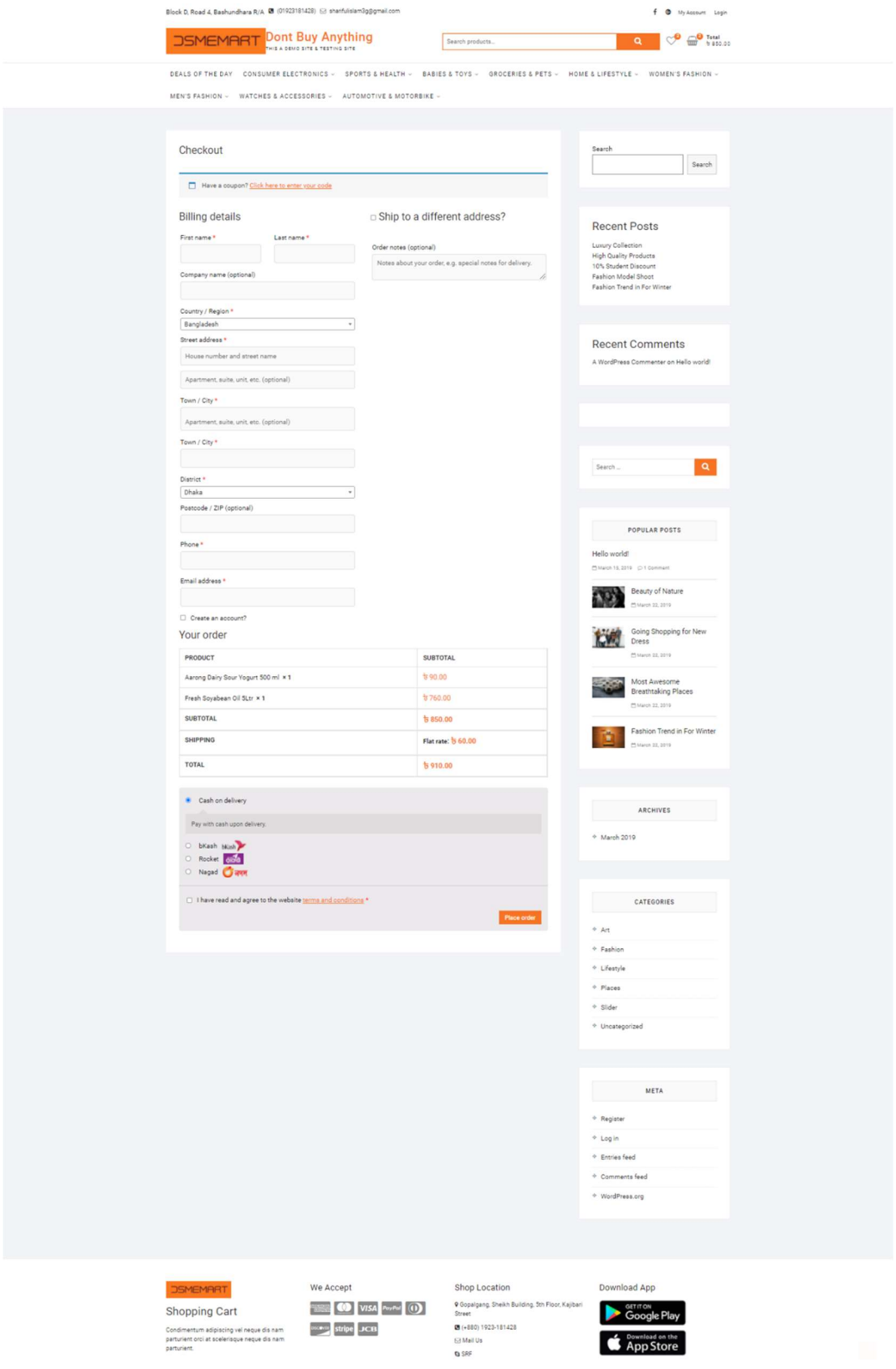

Figure 15:Checkout and Payment

Chapter 6 – Conclusion

The DMS is a web-based application which is used for tracking sales, services, reports, leads, accounts maintenance through online for dealers. It offers better analysis of dealership profitability through retail sales, service and parts analysis. It has a lot of features including E-mails, sales reports, sales history, purchase details, transaction, leads and vehicle and parts ordering through E-mail or in-person.

DMS Solution is designed for automotive industry firstly, but it fully supports all business processes. Those includes vehicle dealers, workshops and service companies, used card traders, vehicle importers and spare part traders. This can make life easier for a lot of businesses.

It is completely web-based solution. So, it does not require at software to be installed on different branches. This is a huge advantage over common application-based management systems. Installing applications on a lot of computers is not an easy task and requires a Signiant amount of manpower and technology knowledge. Developing applications and making them compatible is also difficult work. You will also need a powerful computer for that. On the other hand, since the DMS system is web based, you can run it on any hardwire, including phone, which will be more work on native app-based systems. This system uses WebView app instead, that is much simpler to make.

The scope of the project includes what all future enhancements can be done in this system to make it more feasible to use. Databases for different products range and storage can be provided. Also, more graphics can be added to make it more user-friendly and understandable and manage. There can also be a feature to manage backup versions of documents online.

The goal of this project was to make a management system that could be useful for traders and dealers to manage their business through one integrated system that required no extra monitoring or skills to manage. Managing a business through multiple different system that required extra effort to manage and extra knowledge to operate is a huge hassle for the businesses. This project tried to minimize that by making the DMS system that is totally web based, integrated and required little to maintain and manage.