E-commerce For Women

WEB-TECH Semester Project

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ABSTRACT

As we are living in an era of technology, everywhere you are getting help from computer technology intentionally or unintentionally. From small work to tough work we are using websites on our mobile phones or laptops. Like for watching movies, games and for office works also. For android web development project, we decided to get real problem from the world and solve it by app so users by using an web app can solve that problem easily with the help of new technology. I have made a website on which one kind of user can show their products and another kind of user can buy their products by contacting them. For development, I have used “vscode” as a tool. I have used java scripts as front end language and used “Flask” framework of python for backend logic. To store information about user's credentials and products I have used the "MySQL Database". By using this web app users can view handmade crafts and can place an order of what want to get. The seller can also add new products. We have tried our best to design a flexible user interface so that any kind of user can use our product without any further guide and any hesitation.

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Introduction:

E-commerce For Women web app is a product showcase type app. It is a website. In this app users can signup/log in. Two types of user will use app one is a customer who simply by creating their account on this app can view and search their products and another one is a seller (artist) who first have to create their account and also show her arts on website and can get order from clients. Given app has features that user can view products, search products by categories, and can place the order. The seller can add a new product, edit his products, and can view his profile.

Motivation:

This is an initiative to help and support women's empowerment by giving them opportunities to work. This app is developed to help women, work for them, and support their families. This project can be accessed by all the women who work and are willing to work. The main aim of this project is to encourage women who are at home want to show their handwork. Another main objective is direct communication between artist and client so artist can take care of her responsibility and can work without any fear of others.

Overview:

In this document, we are discussing the result of work done in implementation and development for "E-commerce For Women". This is used as an web application that provides services to those who want to get handmade products, handmade work like knitting, paper handicrafts, decoration pieces, and embroidery.

Methodology:

Our app is a mini project and all requirements can get at start and can analyze them .For small, projects in which requirements are defined clearly, the Waterfall model is suitable that's why I choose this method because in this method processes can be divided into different phases and once we have completed one phase we will move to next phase. But its drawback is that we can't move backward so it is recommended for only small projects.

By using Waterfall model I have divided my work into different phases. In first phase, I have designed a database schema for app. After database design, the UI designing phase gets started, In this first, we have made wireframes using the "Balsamiq" tool to make our design better and more interactive. Benefit of designing a wireframe is that we get a better idea of that how users will interact with our website. After completing wireframes we have designed actual user interfaces of app so our app will look like. After this designing phase is completed and back end development started that which functions will perform and what

tasks user can do by using this app. How I have used Waterfall model is described in the following chart.

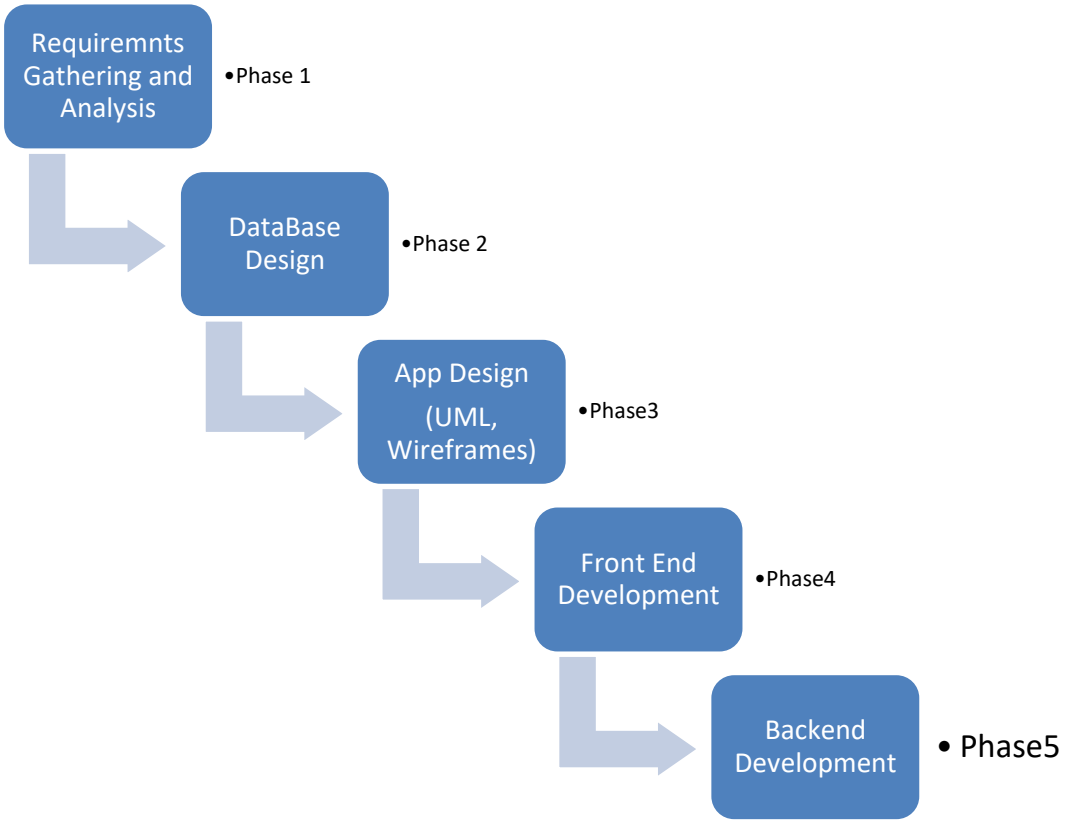

Figure 1: Waterfall Model for Web App

Requirements Gathering and Analysis:

Competitive Analysis:

Once I have got this idea, I have searched a lot for that kind of work on internet. Many E-commerce websites provide online selling and purchasing services but I haven't found that app in which users are specifically dealing with handicrafts, handmade products and decoration pieces. So I have decided to further explore this idea and work on it.

Target Users:

In this app, we are targeting two kinds of users. One is women who can show their product on this app and can get an order. Second are normal users who can view seller's products, can browse products from different categories and can place order by contacting seller. From a technical point of view, our targeted users are novice users mean they are not using apps frequently.

Functional Requirements:

Functional requirements for this application are listed here:

- The women can register themselves as business people (as artist).
- Artist can create her profiles and can show her art/ handwork in form of pictures along with descriptions or product.
- Artist can edit and delete her products.
- Other users can register themselves as client.
- Clients can view artworks of artists.
- There should be different categories of products so ease for searching.
- The client can hire artist for his work.
- The client can place an order.
- The client can contact with artist (seller).
- Orders can be of two types:
    - One that items are already showed in an app.
    - Another one is booking for special orders through call or chat.
- After getting order, artist should be responsible for shipping of items.

Non Functional Requirements:

Non- functional requirements for this application are listed here:

- The user interface should be interactive, easy to use.
- The user interface should target novice users.
- Both parties must go through an authentication process to keep a system secure.
- Web app should protect the privacy of users.
- Web app should be maintained easily.
- New features can be added or delete independently.

Development Requirements:

For development of this app, my project requires following tools, hardware and software requirements.

Tools:

- VScode
- Browser (any)

Technologies:

- HTML
- CSS for styling
- JavaScript

- Flask
- Bootstrap

Libraries:

- Flask-Uploads
- Flask-SQLAlchemy
- Jquery

Database:

- MySQL (online free database hosting)

Hardware Requirements:

- PC or laptop

Database Design:

After requirements gathering and their analysis, I designed database schema that which things will be stored in database and how we store it. For storage, I have used the MYSQL database. After analysis, ER diagram of database is designed which can be seen in following figure.

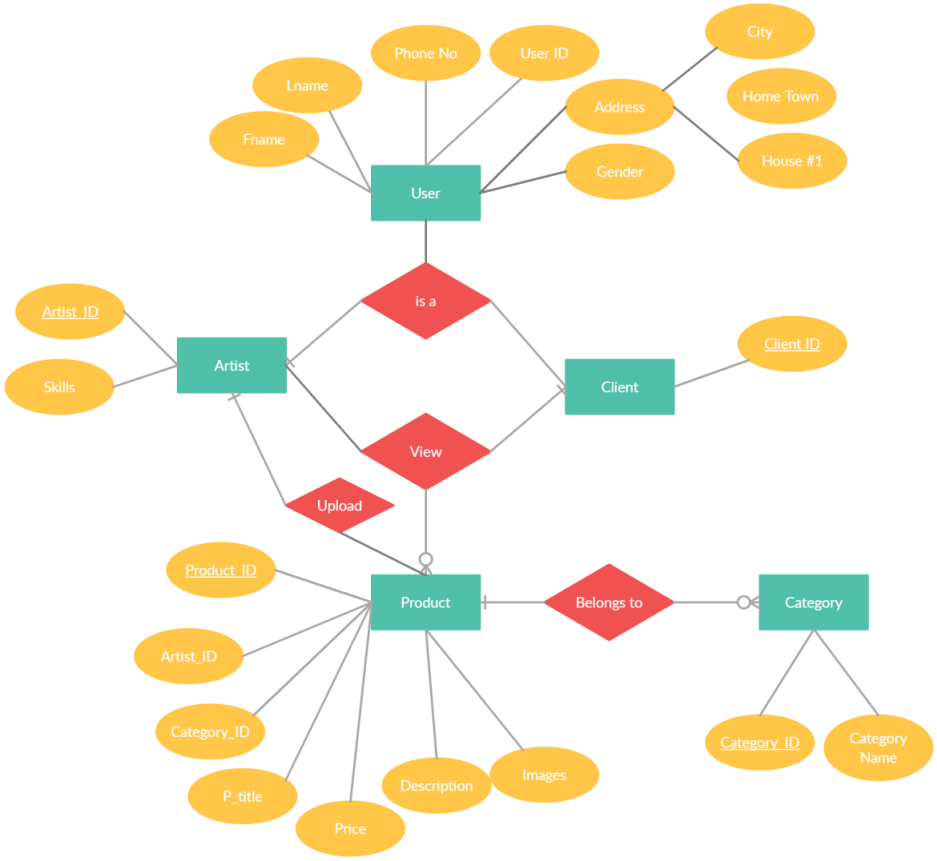

Figure 2: ER Diagram

In this diagram, you can see that there are three main entities. One is user, second is product and third is a category. Users can be of two types one is artist and second is a client.

Use Case Diagram:

During requirements analysis, we have pointed out use cases that how users interact with our system. What functionalities will our app performs? Use cases describe what tasks our users can perform on this app. Complete use case diagram that describes what users can do while using our app is shown below.

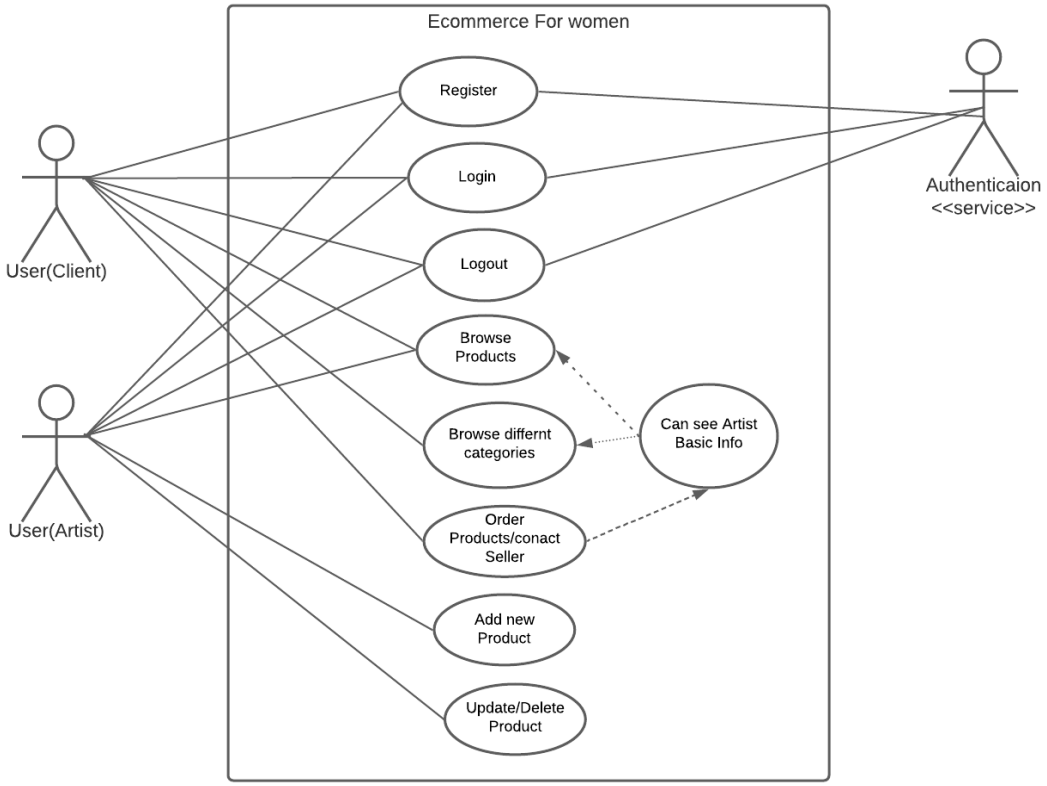

Figure 3: Use Case Diagram

Wireframes:

As we are following the Waterfall model, so we traversed from one phase to another. Firstly we have done requirements analysis, secondly, we have designed database for our webiste, and thirdly we have made use cases of our website. Our next phase is making prototypes for app. Now our focus is to make wireframes so we can expect that how our app will look like what will be interface of our app then convert that prototype into an actual interactive user

interface is easy. I have shown some screens that I have designed using the "Balsamic Wireframe" tool.

Figure 4: Login Page

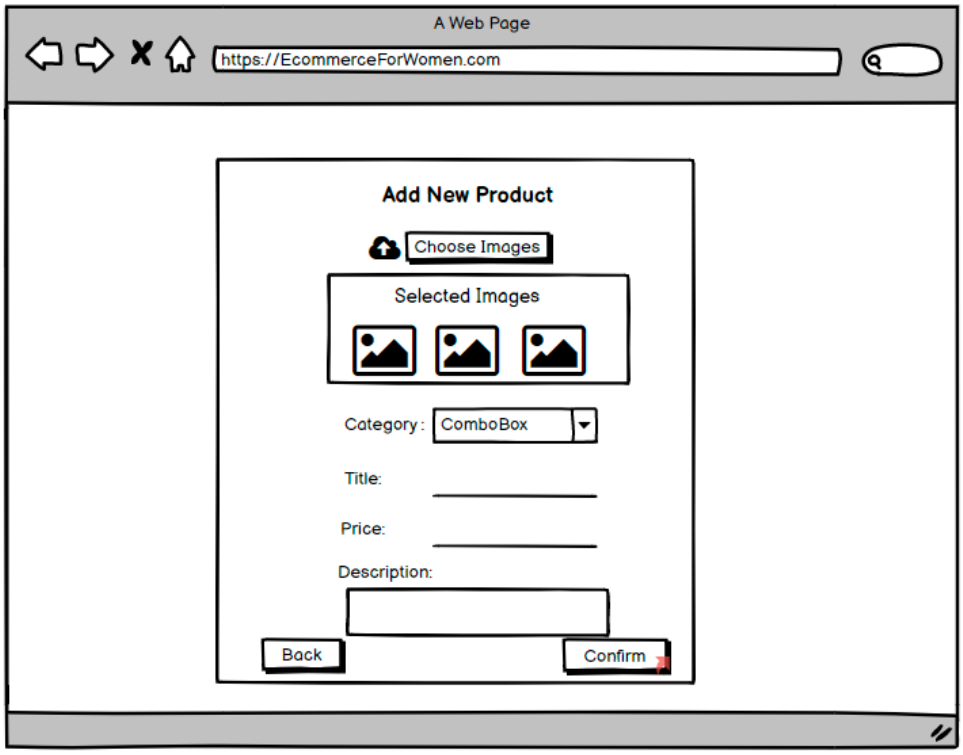

Figure 5: Add Product Page

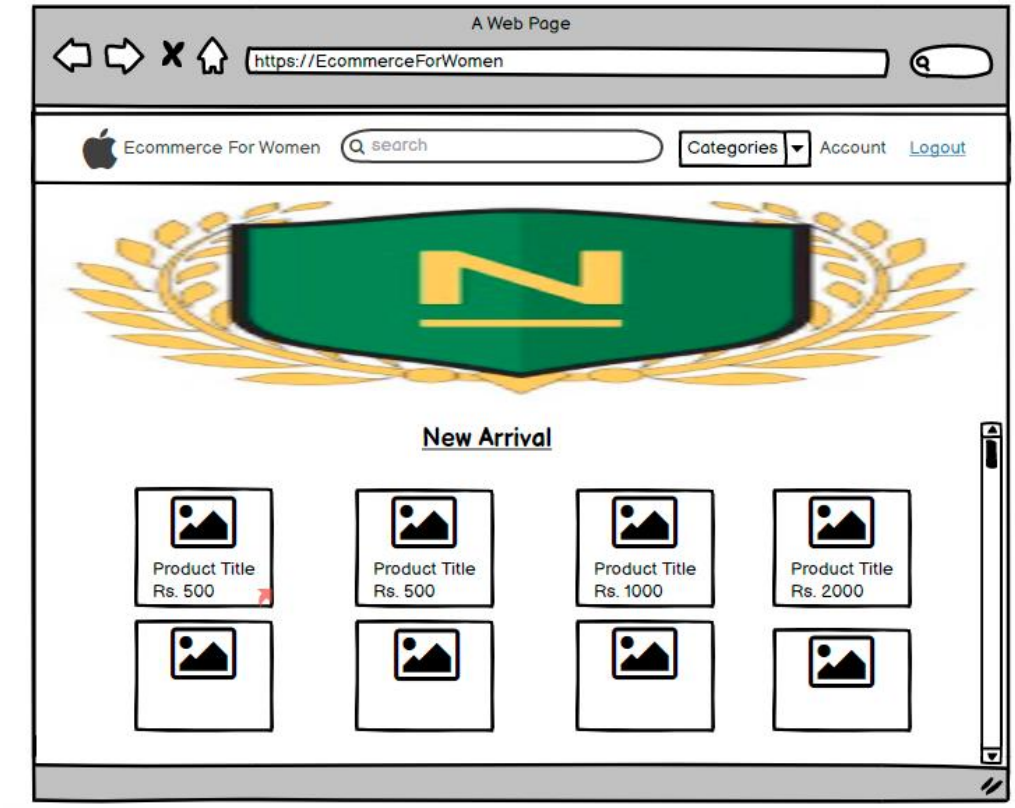

Figure 6: Home Page

Implementation and User Interface Design:

After designing prototypes we have started work on designing user interface. I have designed many screens for different tasks like screen for login/signup and screen for home page, add delete products. Now I am presenting web screens by taking care of complete website flow.

Login/ Signup Page:

From Login/Signup screen user will be redirected to login/signup page that screen is shown below. From an implementation point of view, Two main routes are made one is for login and another one is for signup. Login function validates the user's phone number via entered email and password which user has entered for login. If a user who wants to access app features is valid then home page will be launched. On another hand, if new user wants to register himself, register page will be launched in which user first enter his/her credential like personal information, address information if new user is an artist he must also select categories of arts what he is doing.

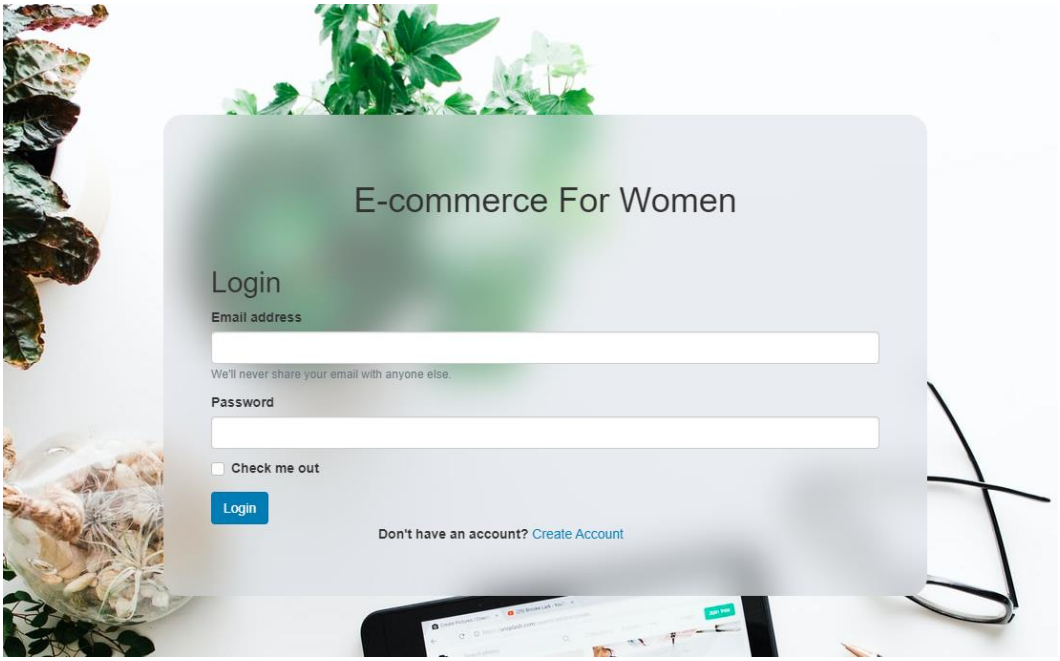

Figure 6: Login Page

If user logged in, he will move towards home page, but if user wants to create a new account he will enter his credential for sign up. For signup, he will come across that below screen. If user wants to register as artist he will also come across with categories selection phase. Main task of this register function is to store selected categories in the user's profile. Below is the screen when user registers himself.

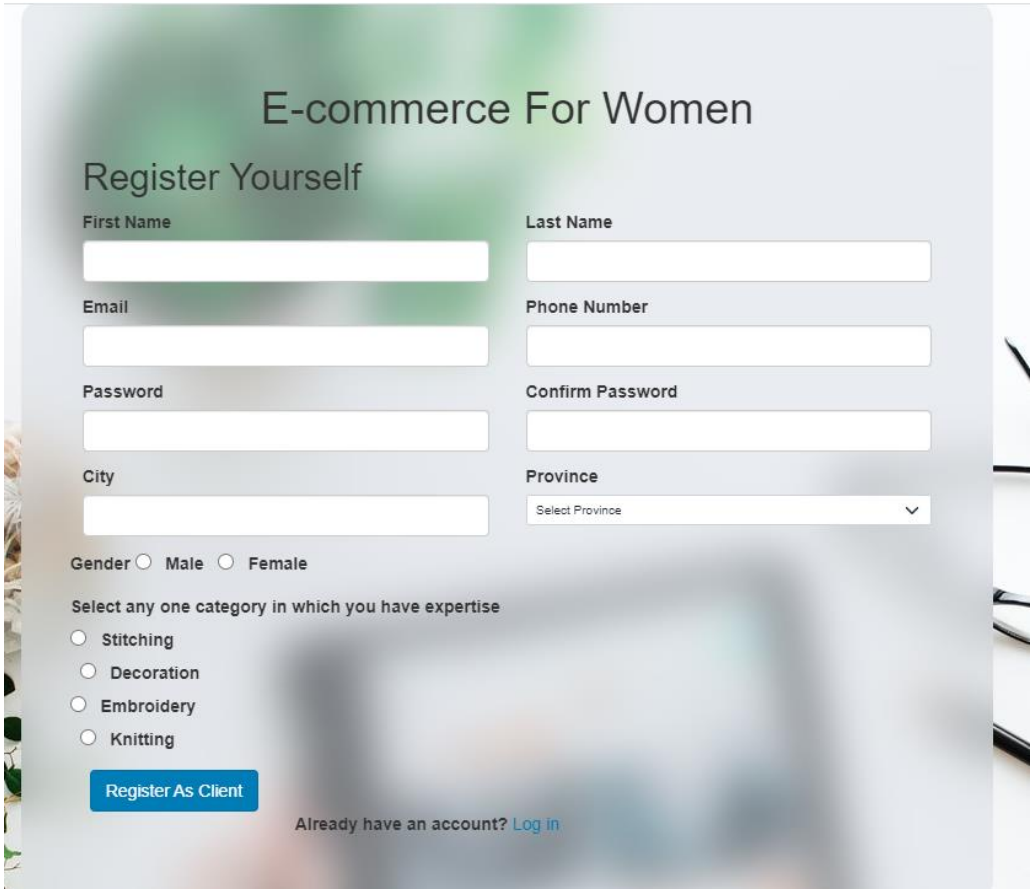

Figure 7: Signup Screens

Home Page:

Once user logged in or he created a new account. In Home page, Following things will be visible. First is navigation bar on top, on which user can click any navigation item and move to that specific section. For client, Second main thing is categories. Categories will be visible right after navigation menu. User can select specific category. In Home page, Products will be visible user can browse products. Along with each product its name, price and contact of owner will be available.

Figure 8: Header of Home Screen

Figure 9: Categories Section

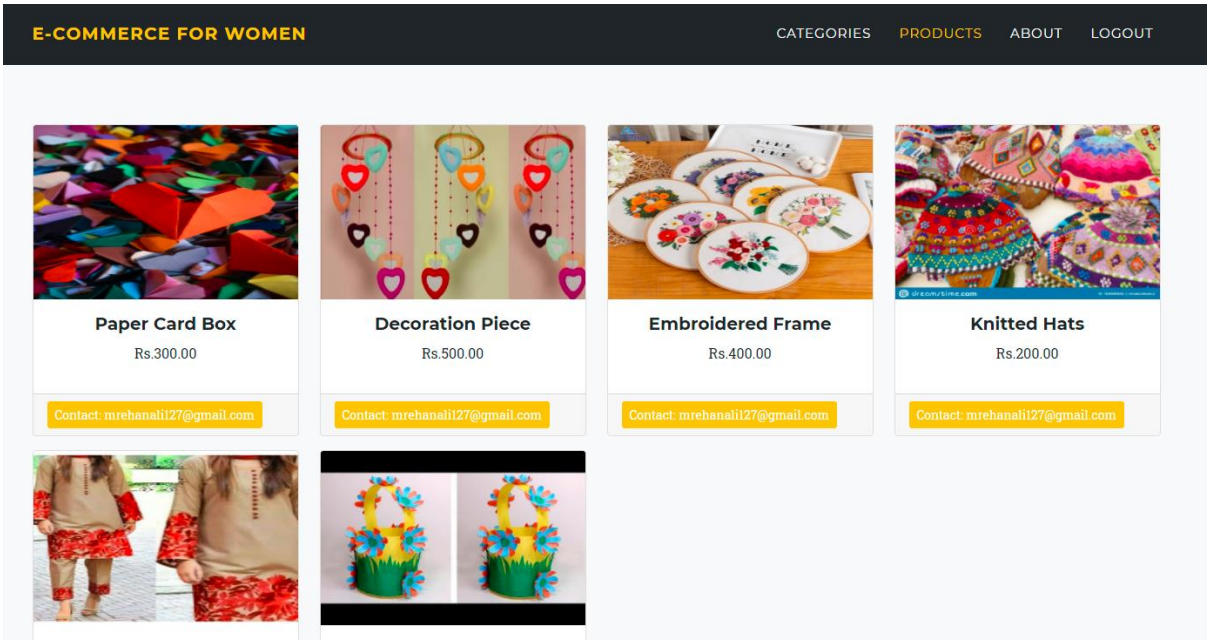

Figure 10: Products Section

Seller Part:

From seller point of view, user can add new product. He can edit and delete existing products. He can login/logout. Sections for seller home screen is shown below.

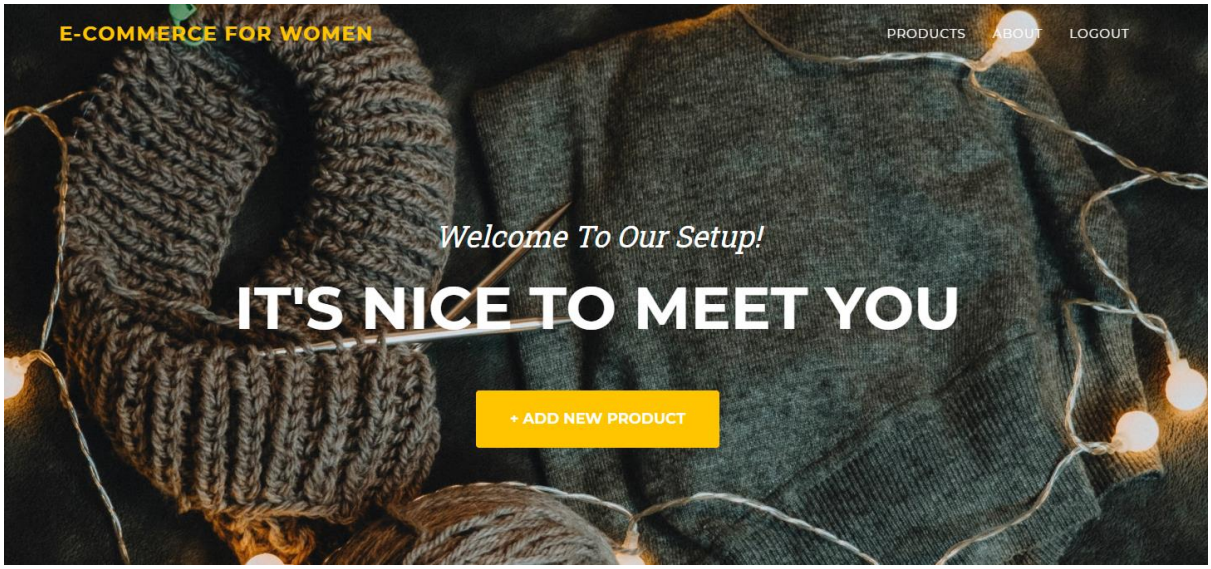

Figure 11: Add New Product Section

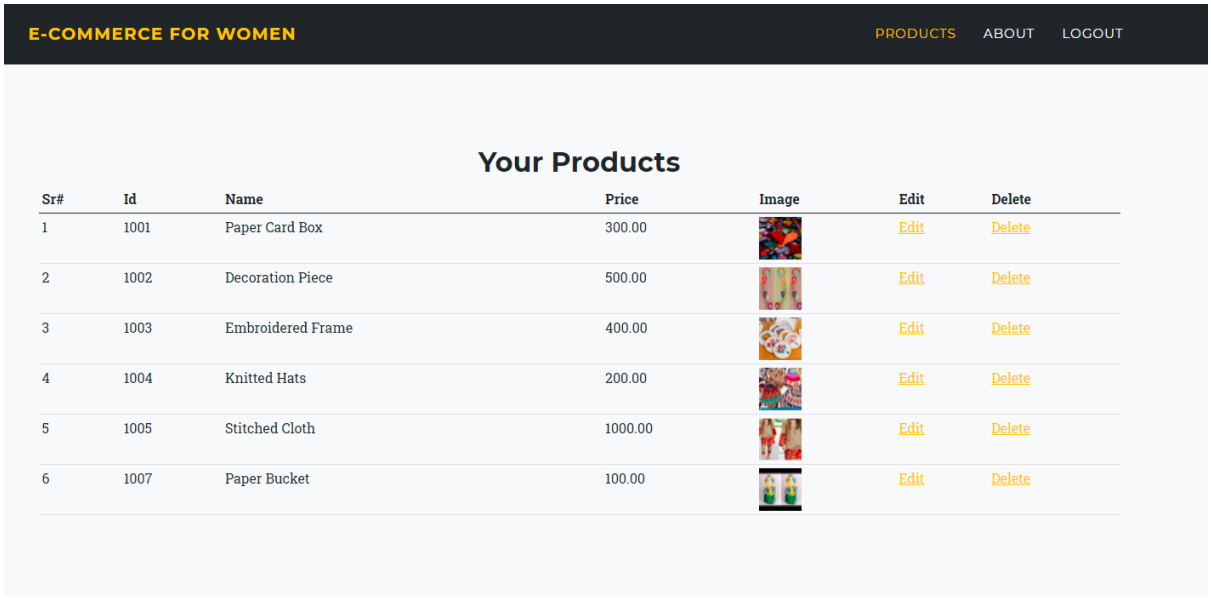

Figure 12: Admin Product's Section

Conclusion:

I started by describing that why I selected this project as a mobile website development project. After that, I explained which methodology I have used.I have also explained how I designed database schema and showed ER diagram of database. Then I explained what tools I have used, what are the software and hardware requirements for development. I have pointed our functional and non-functional requirements of app. Prototyping is one of the main step of the project, I have shown some wireframes which I have designed. After prototyping, I have discussed the implementation part along with user interface description.