

A Project Report
On
Skincare Product Website in
Django

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ABSTRACT

In today's corporate world, shopping is quite important. This project examined the various problems with online shopping. The purpose of the study is to contribute theoretically to our understanding of the current state of internet buying. The Research Talk about consumer online shopping habits. The issues that consumers have when they choose to accept online buying are also identified in the paper. The goal of the current study is to find the concept of online shopping through an expressive analysis of past relevant studies that addressed the numerous concepts of online shopping. Solitude and safety concerns come up frequently as reasons to be wary of online buying. The ease of internet buying, the desire for information, social interaction, and diversity all have an impact on consumer attitudes. The biggest concerns with online buying are the impossibility of product testing, issues with complaints, product returns, and the loss of personal data.

INTRODUCTION

In today's fast-paced business world, it's critical to be able to respond to client needs in the most effective and timely manner possible. If clients want to view your business online and quickly use your goods or services. Online Shopping is a fashion and lifestyle e-commerce site that offers a huge selection of apparel and accessories.

Using Python, Django, HTML, CSS, JavaScript, and a SQLITE3 database, this Django skincare products website will be created. This website will help an online retailer or business offer its clients an online ordering platform. There are two user interfaces on the system: one is for the administrator, and the other is for the client, which is the website. Through this project, registered customers can browse the wide range of products that are offered, buy what they want right away using the Bkash's payment processor (Instant Pay), or place orders utilizing the Cash on Delivery (Pay Later) option. Orders placed with the Instant Pay and Pay Later options are easily seen by administrators and managers.

MOTIVATION

Research has shown that products can be tailored to the various segments of consumers by classifying them according to how they are motivated to shop online. There are various taxonomies of online shoppers, such as Keng Kau et al. (2003) and Rohm and Swaminathan (2004), which categorize online shoppers into four groups: variety seekers, convenience shoppers, store-oriented shoppers, and balanced buyers. Variety seekers are motivated to search for different brands and products from several stores, while variety seekers are motivated to explore product details online. Balanced buyers are motivated to plan their purchases ahead, while social interaction motivates store-oriented shoppers. The online clickstream data of consumers can be used to identify the various categories of shoppers.

Variety seekers, store-oriented shoppers, and convenience shoppers are all types of shoppers. Variety seekers will likely spend more time reviewing and comparing prices, promotions, brands, and features of products before making a purchase decision. Store-oriented shoppers will likely engage in interaction or dialogue with other consumers on the e-commerce platform before making a purchase. Convenience shoppers are motivated by the convenience of online shopping, effort, and time saving. They may not participate on an e-commerce website's social platform, where questions are asked and answered and reviews posted. The typology of Rohm and Swaminathan (2004) was used to tailor influence strategies in e-commerce.

PROPOSED SYSTEM

The proposed system facilitates the development of a website for the online purchase and selling of items. My project will make it simpler for humor to save time and lessen physical effort, in contrast to traditional commerce, which requires a person to travel in order to purchase goods. The main goal of the application is to give users the ability to shop virtually on the Internet and buy whatever they want from the store. Under this planned system, customers do not need to visit stores to make purchases. A customer can order the products they desire by using this technique. A customer can order the products they desire by using this technique. The shop owner may serve as the system administrator. The store owner may designate certain individuals with this responsibility, who will work with him or her to manage customer and product orders. Additionally, the system allows a free home delivery service where items are sent to your house.

TOOLS & TECHNOLOGY

1. Python Framework Django

A back-end server-side web framework is called Django. Python-based Django is free and open source. Using Python to create web pages is made simpler by Django.

2. HTML

HTML is the preferred markup language for wirelessly signed documents intended to be viewed via a web browser.

3. CSS

CSS stands for Cascading Style Sheets. CSS describes how HTML elements are to be displayed on screen, paper, or in the media.

4. JavaScript

JavaScript is a light-weight object-oriented programming language which is used by several websites for scripting the webpages.

5. SQLITE3 Database

A stand-alone command-line shell application is SQLITE3. it has the ability to handle a SQLITE database file, define tables, add and remove records, run queries, and create databases.

METHODOLOGY

Introduction of Methodology

A methodology or system development methodology in software engineering is a framework that is used to structure, plan and control the process of developing an information system. We use a formal methodology for structuring the delivery of systems. Methodology is needed for software so that it builds with consistency. The documented collection of policies, processes and procedures used by a development team or organization to practice software engineering is called its software development methodology (SDM) or system development life cycle (SDLC).

Software Development Life Cycle

Software Development Life Cycle is the application of standard business practices to building software applications. It gives us an overview and guidelines to develop quality software. For FSCECS, we follow SDLC to make it reliable for the user.

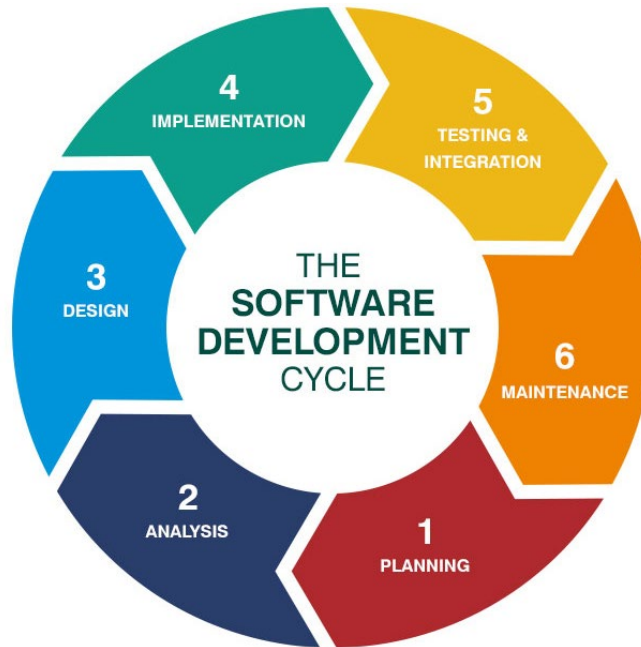


Figure 1 Software Development Life Cycle

Requirement collection & analysis

The most important phase of the SDLC is the requirement gathering and analysis phase because this is when the project team begins to understand what the customer wants from the project. It will collect the functional and system requirements of the business process, the user requirements and the operational requirements. During this phase, the customer states the expectations of the project including who will use the product, how the customer will use the product, and the specific information included with any special customer requirements related to the software. The customer meets with business managers and analysts to provide the requirements. It's important for the project team to understand the needs of the customer because this information is critical to developing the product the customer requests.

Feasibility Study

Once the requirement analysis phase is completed the next SDLC step is to define and document software needs. This process conducted with the help of 'Software Requirement Specification' document also known as 'SRS' document. It includes everything which should be designed and developed during the project life cycle.

There are mainly five types of feasibility checks:

Economic: Can we complete the project within the budget or not?

Legal: Can we handle this project as cyber law and other regulatory framework/compliances.

Operation feasibility: Can we create operations which is expected by the client?

Technical: Need to check whether the current computer system can support the software

Schedule: Decide that the project can be completed within the given schedule or not

Software Process Model

Developing the Skincare Product Website in Django, we have followed the agile model.

Agile is an iterative, team-based approach to development. This approach emphasizes the rapid delivery of an application in complete functional components. Rather than creating tasks and schedules, all time is “time-boxed” into phases called “sprints.” Each sprint has a defined duration (usually in weeks) with a running list of deliverables, planned at the start of the sprint. Deliverables are prioritized by business value as determined by the customer. If all planned work for the sprint cannot be completed, work is reprioritized and the information is used for future sprint planning.

As work is completed, it can be reviewed and evaluated by the project team and customer, through daily builds and end-of-sprint demos. Agile relies on a very high level of customer involvement throughout the project, but especially during these reviews.

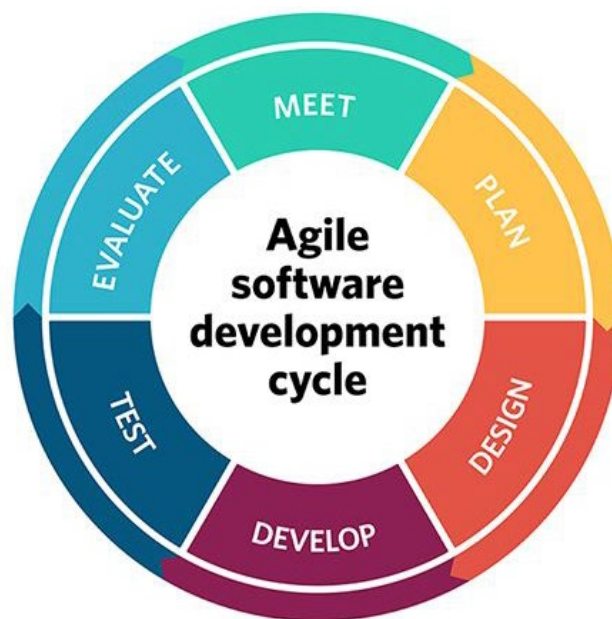


Figure 2 Agile Model

IMPLEMENTATION & MAINTENANCE

Customers can shop virtually utilizing the Internet and purchase the things and articles they want from the store, according to the application’s main premise. The information about the objects is saved in a relational database management system (RDBMS) on the server (store). The details of the things are fetched from the database for the customer to see based on their menu choices, and the database of all commodities is updated at the end of each purchase.

SYSTEM DESIGN

Designing an online shopping system involves multiple components such as customer interface, admin interface, database management, server architecture, payment options, and security protocols.

Here's an overview of the features for designing an online shopping system:

Features of admin side:

- **Dashboard** – From the admin dashboard, you will have access to all of the system's core functions. For example, product summaries, orders etc.
- **Admin Access to Product Management Information System** – The admin has access to the product management information system. He has the ability to add, update, and delete products.
- **Manage Orders** – As one of the admin's primary tasks, the admin can accept or reject orders from clients on a case-by-case basis.
- **Customer Management** – The admin has access to the customer's account. The system administrator can add, edit, and update customers.
- **Secure Login and Logout** – One of the system's security features is the secure login and logout system, which is enabled by default.

Features of customer side:

- **Login Page** – This page is where customers enter their website credentials to receive access to all of the site's features.
- **The Register Page** – is where new customers create their website login credentials.
- **Homepage** – This is the system's default page when customers visit the website. This page displays the products available for purchase in the store, or you may search for specific items using the search box above the products.
- **Contact Us** – The frontend client can send an inquiry to the system's administrator via the contact us page.
- **Feedback** – The frontend user can submit feedback to the system's administrator using the feedback feature.
- **Customers' Profiles** – Customers can register and edit their profiles in the frontend. In a nutshell, this system includes a customer management system.
- **Product View Page** – The page on which the customer adds the product to his or her cart as well as the page on which the product's specific information is displayed.
- **Cart List** – The page that lists the products that the consumer has chosen is called the Cart List Page. The customer can complete the order checkout process on this page.
- **My Orders Page** – This is the page where the customer's orders are listed.
- **Payments** – This Django Skincare website Project accepts Bkash's Payments as a payment mechanism.
- **Order Tracking** – This website allows customers to track their orders.

DATA FLOW DIAGRAM

Data Flow Diagram (DFD) provides a visual representation of the flow of information (i.e. data) within a system. By drawing a Data Flow Diagram, we can tell the information provided by and delivered to someone.

For the Skincare Product Website, here given a simple easy Data flow Diagram:

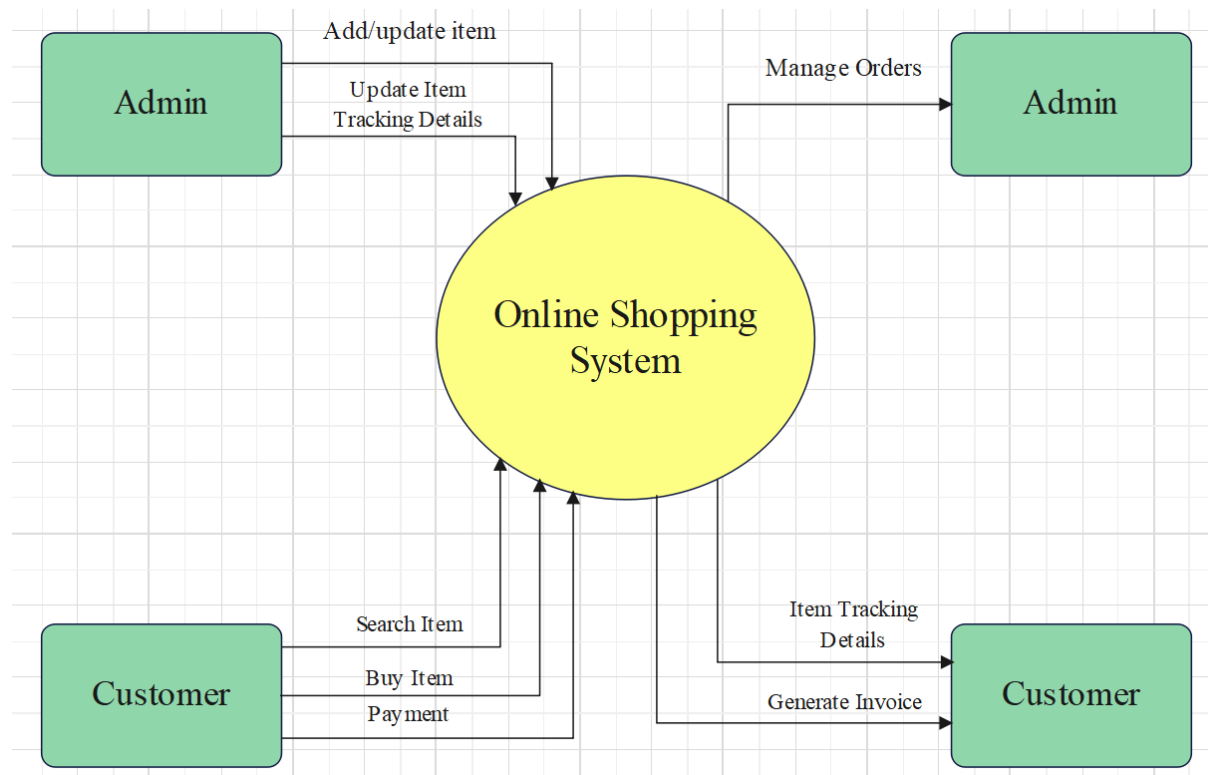


Figure 3 Data Flow Diagram for Skincare Product Website

FLOW CHART

A flowchart is a picture of the separate steps of a process in sequential order. It is a generic tool that can be adapted for a wide variety of purposes, and can be used to describe various processes, such as a manufacturing process, an administrative or service process, or a project plan.

Flow chart for the Skincare Product Website:

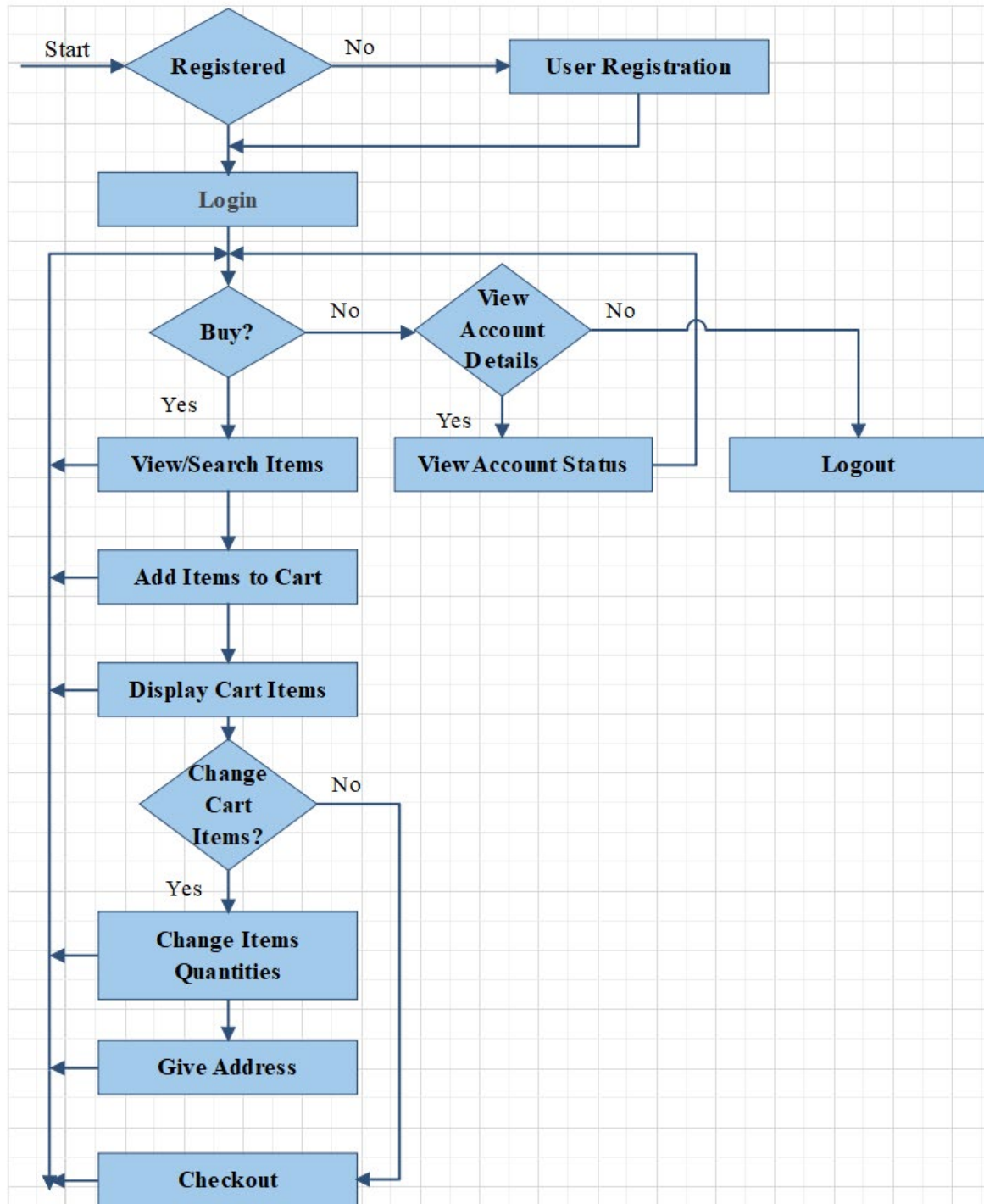


Figure 4 Flow chart for Skincare Product Website

STEPS TO RUN THE SYSTEM

These are the step's to run an Online Skincare Product Website Project in Django:

1. **pip install virtualenv**

Firstly, we need to install the **virtualenv**, Open a command prompt by going to the project folder directory and typing CMD. After opening the CMD type “ **pip install virtualenv**”.

2. **virtualenv env**

Then, after installing **virtualenv** we have to type “**virtualenv env**” and enter.

3. **cd env/Scripts**

Next, we must type. “**cd env/Scripts**” and press enter.

4. **Activate**

Next, we need to type “**activate**” then press enter.

5. **cd ../..**

Then will type “**cd ../..**” and press enter.

6. **Install Django**

To install Django, “**pip install django**” command is need to be typed.

7. **python manage.py makemigrations**

After installation of the requirements, we need to type this command “**python manage.py makemigrations**” to create a tables in the database.

8. **python manage.py migrate --run-syncdb**

The command “**python manage.py migrate --run-syncdb**” need to be typed after making migrations to migrate the tables in database.

9. **python manage.py createsuperuser**

After migration of database you need to create super user to login in the admin account, just you need is to type the command “**python manage.py createsuperuser**”.

10. **python manage.py runserver**

Lastly, after creating super user, the command “**python manage.py runserver**” need to be typed for testing and launching the project.

11. **http://127.0.0.1:8000/**

Finally, to access the project dashboard, we have to copy this URL “**http://127.0.0.1:8000/**” into our browser.

RESULT & DISCUSSION

Homepage

This is the system's default page when customers visit the website.

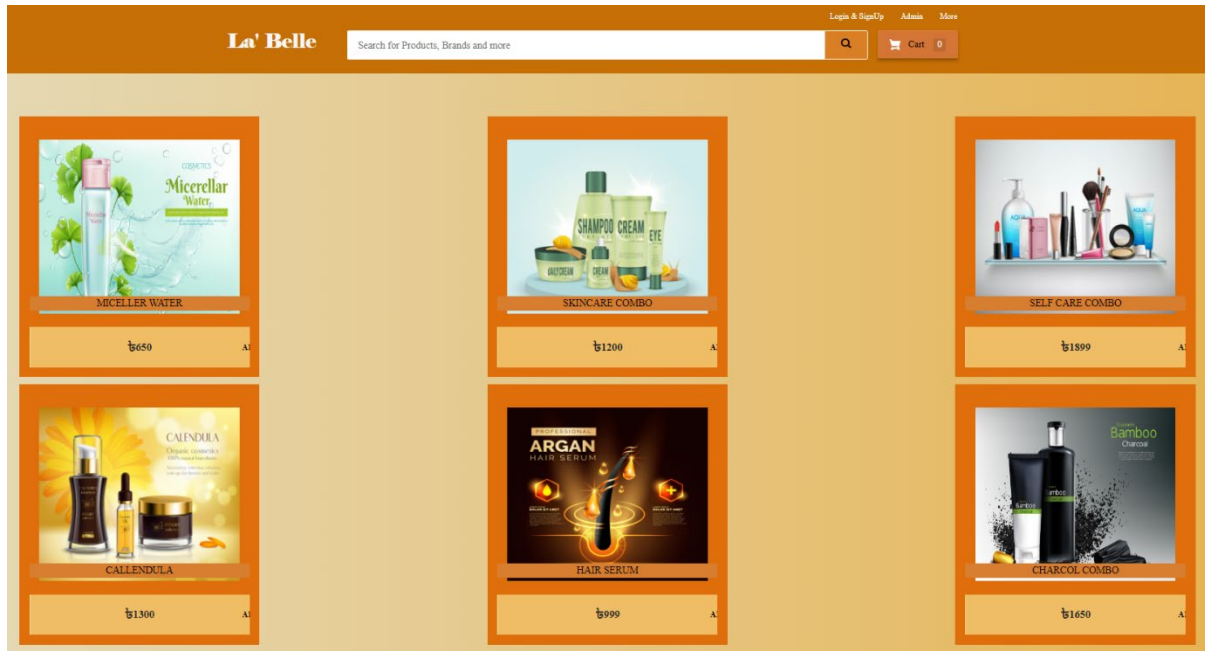
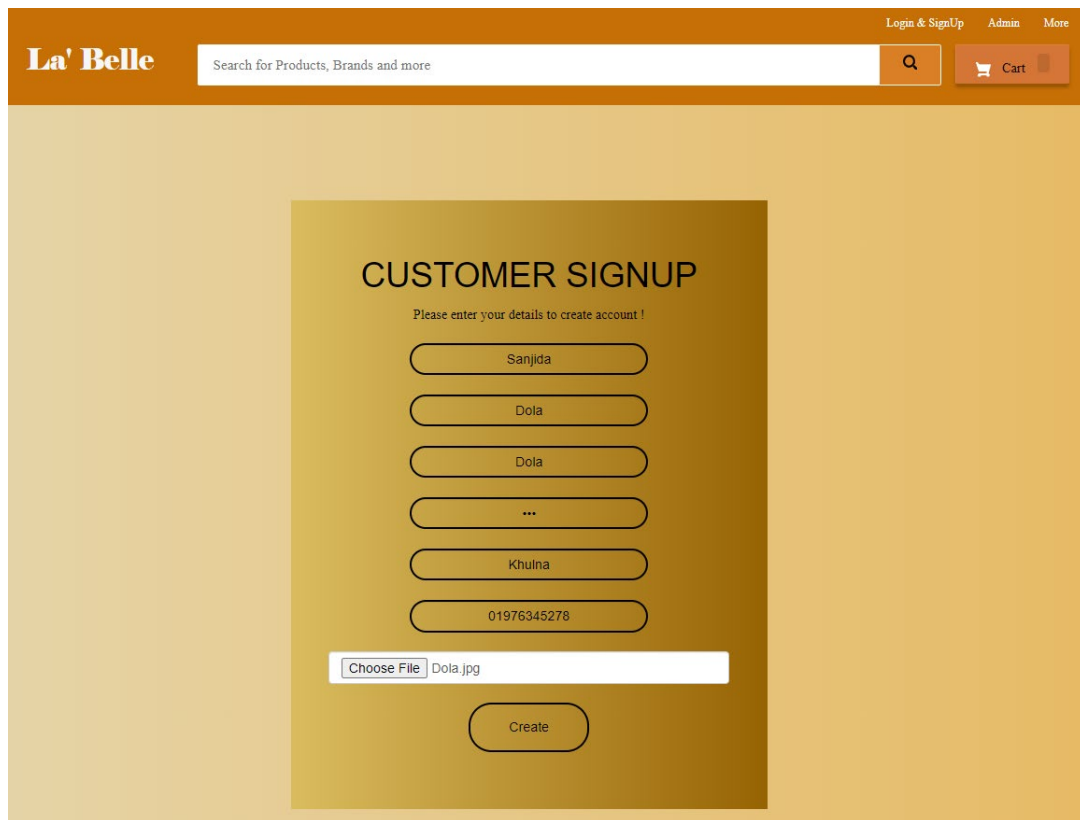


Figure 5 Home Page

- This page displays the products available for purchase in the store.
- Customer can hover on the products to know price and description of the products.
- By clicking on the products they can add them to the cart.
- There is a cart button where customer can find there added products.
- A search button, where customer may search for specific items using the search box above the products.

The Register Page

This is where new customers create their website login credentials.

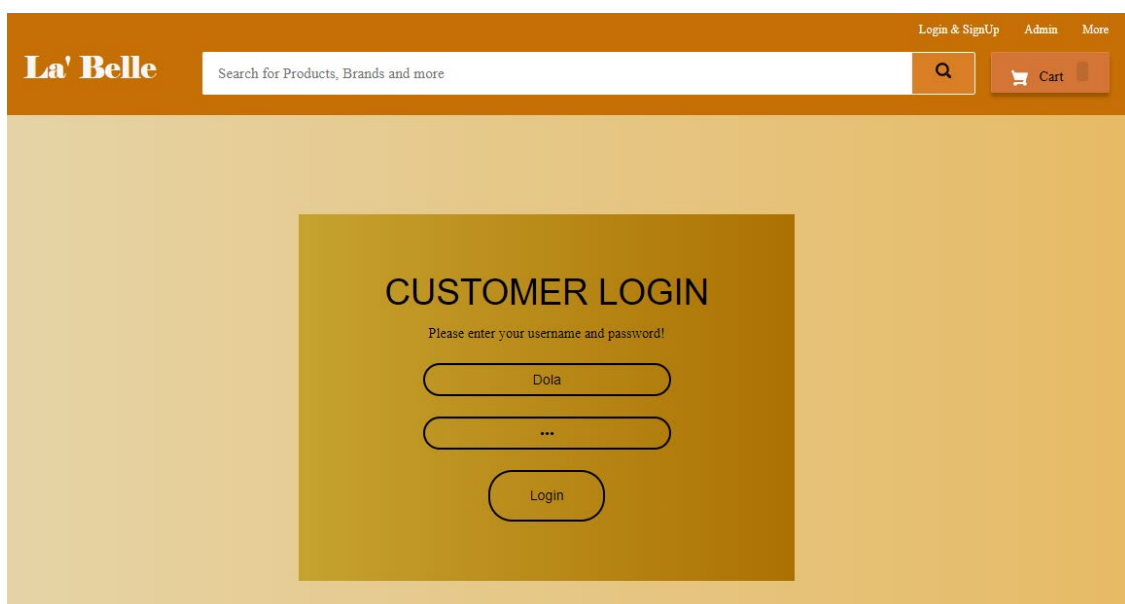


The screenshot shows the 'La' Belle' website's customer registration page. The header is orange with the brand name 'La' Belle' on the left, a search bar in the center, and links for 'Login & SignUp', 'Admin', and 'More' on the right. Below the header, the main content area is a light beige color. In the center, there is a dark orange rectangular box with the title 'CUSTOMER SIGNUP' and the instruction 'Please enter your details to create account !'. Inside this box, there are six input fields: the first contains 'Sanjida', the second and third contain 'Dola', the fourth contains '...', the fifth contains 'Khulna', and the sixth contains '01976345278'. Below these fields is a file upload section with a 'Choose File' button and the text 'Dola.jpg'. At the bottom of the box is a 'Create' button.

Figure 6 Register Page

Login Page

This page is where customers enter their website credentials to receive access to all of the site's features.



The screenshot shows the 'La' Belle' website's customer login page. The header is orange with the brand name 'La' Belle' on the left, a search bar in the center, and links for 'Login & SignUp', 'Admin', and 'More' on the right. Below the header, the main content area is a light beige color. In the center, there is a dark orange rectangular box with the title 'CUSTOMER LOGIN' and the instruction 'Please enter your username and password!'. Inside this box, there are two input fields: the first contains 'Dola' and the second contains '...'. Below these fields is a 'Login' button.

Figure 7 Login Page

Cart List

The page that lists the products that the consumer has chosen is called the Cart List Page. The customer can complete the order checkout process on this page.

My Cart				
Name	Image	Price	Description	Remove From Cart
Miceller Water		650	Best for double cleansing	
Hair Serum		999	Best for Natural Hair	
Charcol Combo		1650	Best for dirt cleaning	

Total 3299

Purchase

Figure 8 Cart List

Payments

This Django Skincare website Project accepts Bkash's Payments as a payment mechanism. When a customer confirm his order and give delivery details and click to proceed then there will be the payment page.

ITS FAKE PAYMENT PAGE. WE DO NOT STORE YOUR DATA
JUST FOR DEMO

Payment Details

☐ Remember

BKASH NUMBER

019763452768

17

ORDER DATE

06

Bkash Pin

...

Final Payment

3299

Pay

Figure 9 Payments

Order Tracking

This website allows customers to track their orders.

The screenshot displays the 'My Orders / Tracking' section of the La' Belle website. The header includes the 'La' Belle' logo, a search bar, and navigation links for 'Orders', 'Profile', 'Logout', and 'More'. A shopping cart icon is also present. The main content area shows three orders, each with a product image, name, description, price, shipment address, status, and a progress bar indicating the order's stage.

Order ID	Product Name	Description	Price	Shipment Address	Status	Progress
1	Micellar Water	Best for double cleansing	₹ 650	Khulna	Pending	Order Pending
2	Hair Serum	Best for Natural Hair	₹ 999	Khulna	Order Confirmed	Order Confirmed
3	Charcoal Combo	Best for dirt cleaning	₹ 1650	Khulna	Delivered	Delivered

Figure 10 Order Tracking

- Customers can check whether their order is confirmed or not.
- They can also check if the parcel is on the way or have been delivered to them.

Invoice PDF

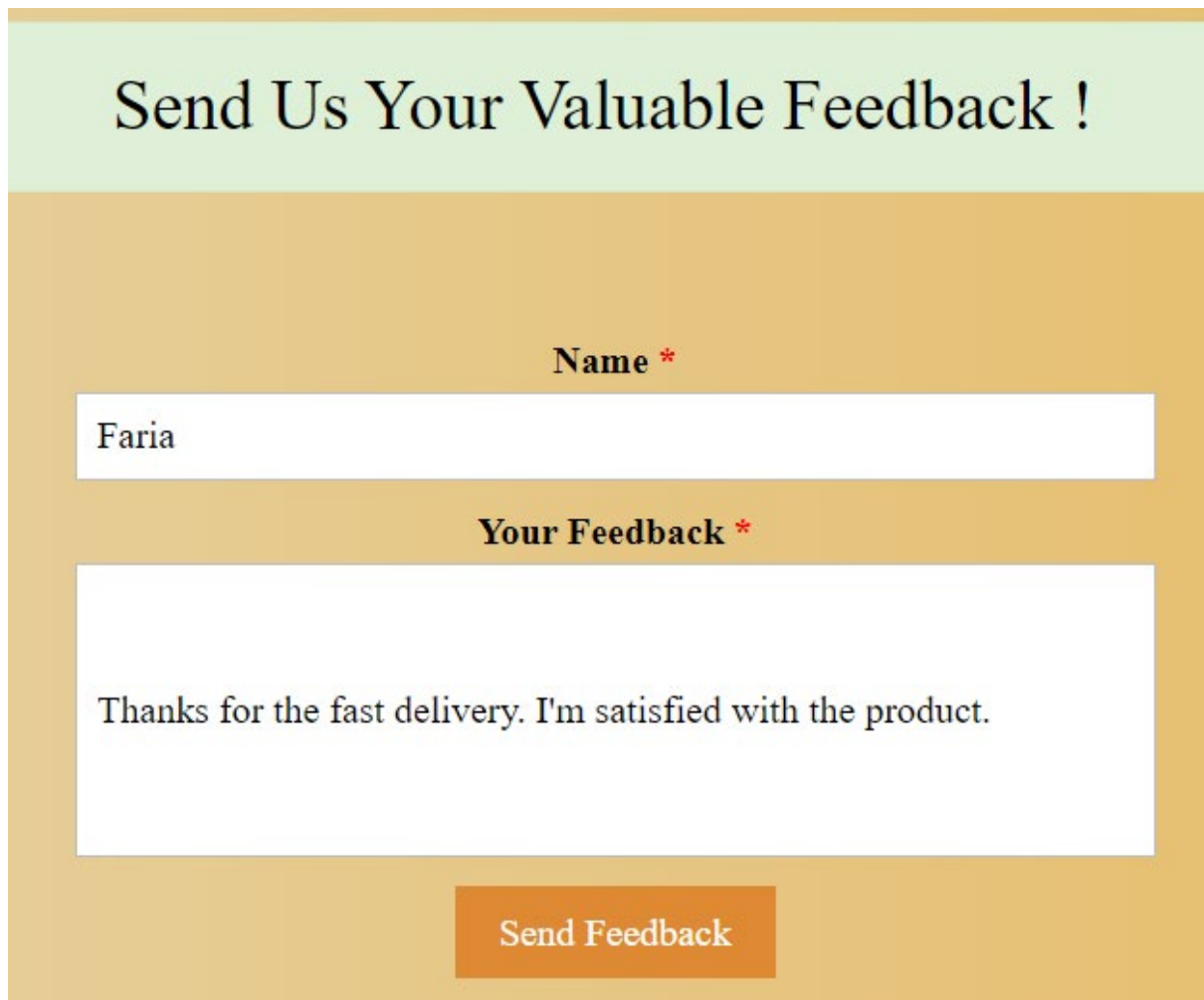
They can print their invoice to see the information related to products and delivery.

La' Belle		Order Date: June 17, 2023
Customer Name : Faria	Customer Mobile : 16754236781	
Customer Email : faria456@gmail.com	Shipment Address : Dhaka	
Product Image :	Product Name: Skincare Combo	
Product Price : 1200	Product Description: Made with natural ingredients	
Order Status :		
Pending		

Figure 11 Invoice

Customer's Feedback

The customers can submit feedback to the system's administrator using the feedback feature.



The image shows a web form for customer feedback. It has a light green header with the text "Send Us Your Valuable Feedback !". Below this is a yellow background area. The form contains a label "Name *" in bold black text, followed by a white input field containing the text "Faria". Below this is another label "Your Feedback *" in bold black text, followed by a large white text area containing the text "Thanks for the fast delivery. I'm satisfied with the product.". At the bottom of the form is an orange button with the text "Send Feedback" in white.

Figure 12 Customer's Feedback

Admin Dashboard

From the admin dashboard, you will have access to all of the system's core functions. For example, product summaries, orders etc.

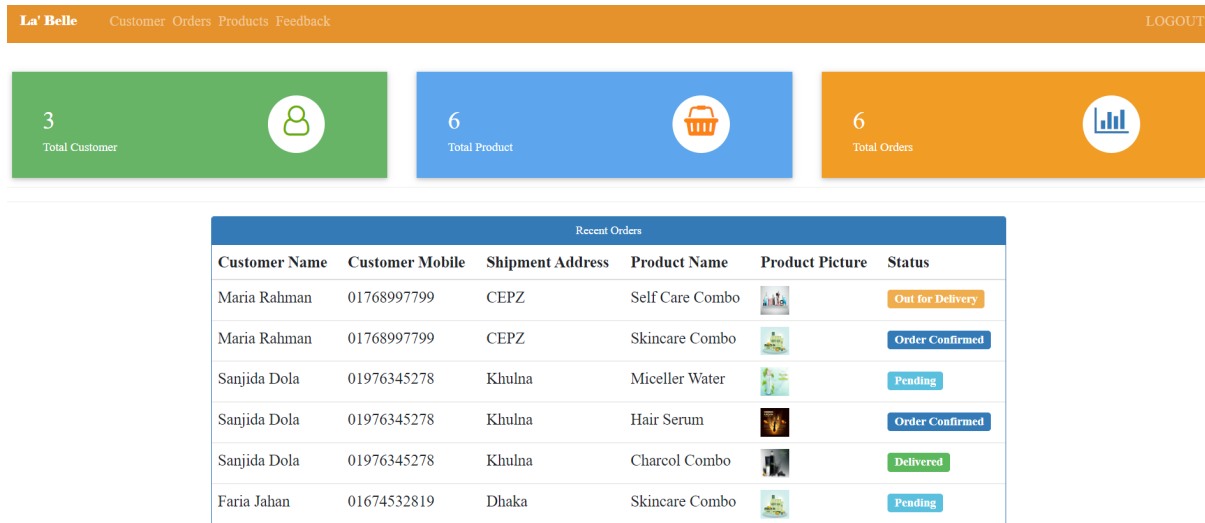
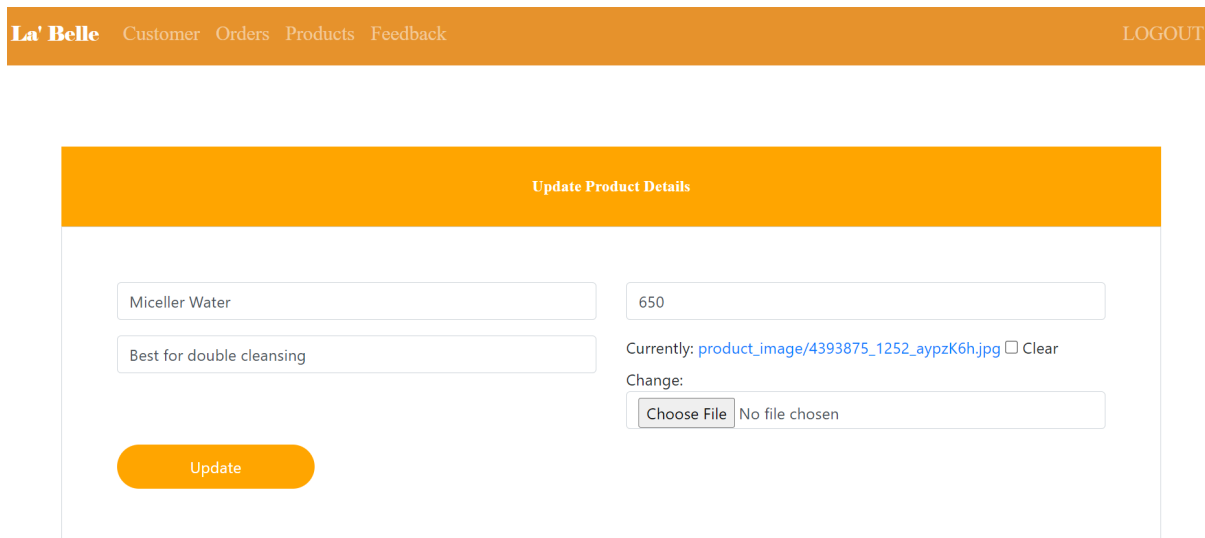


Figure 13 Admin Dashboard

Admin Access to Product Management Information System

The admin has access to the product management information system. He has the ability to add, update, and delete products.



The screenshot shows the 'Update Product Details' form. It includes input fields for product name ('Miceller Water'), price ('650'), and description ('Best for double cleansing'). There is a section for the product image, showing the current image ('product_image/4393875_1252_aypzK6h.jpg') and a 'Choose File' button. An 'Update' button is at the bottom left.

Update Product Details

Miceller Water

650

Best for double cleansing

Currently: [product_image/4393875_1252_aypzK6h.jpg](#) ☐ Clear

Change:

No file chosen

Figure 14 Admin Product CRUD Function

Customer Management

The admin has access to the customer's account. The system administrator can add, edit, and update customers.

Update Customer Details

Name: Maria

Last Name: Rahman

Email: maria

Password:

Mobile:

Address:

Currently: [profile_pic/CustomerProfilePic/WhatsApp_Image_2022-08-14_at_9.14.36_AM.jpeg](#) ☐ Clear

Change:

No file chosen

Figure 15 Customer Management

TEST PLANS

This test plan for website cross browser testing supports the following objectives:

1. To specify the equipment to be utilized during the testing procedure.
2. To inform the parties in charge of the objects to be tested, establish expectations on the timeline, and specify environmental requirements.
3. To specify the testing procedures.

Testable Features

Features to be tested include the following:

- As a customer, logging into the website as a shopper
- As a customer, navigating the store
- As a customer, adding items to a shopping cart
- As a customer, removing items from a shopping cart
- As a customer, purchasing multiple units of the same item
- As a customer, contacting support
- As a customer, completing an order cycle
- As a customer, cancelling an order
- As a customer, leaving a feedback
- As an admin, fulfilling an order
- As an admin, answering a support inquiry
- As an admin, moderating feedback

LIMITATION

1. There is only one direct payment system in the website.
2. This website does not have features by which user can set price ranges for products and receive alerts once the price reaches the particular range.
3. Customers cannot create wish lists which they can access later.
4. Admin does not hold any product return and refund policy.
5. The whole system can be susceptible to security breaches.

FUTURE SCOPE

Our project has potential for development in the future. This system could eventually include a lot more features like giving. Incorporating a credit card verified payment system, which is widely utilized in Bangladesh. We additionally intended to provide clients the option of being divided into classes so that different offers could be made to each class. The system may record each customer's purchasing history and use machine learning algorithms to provide recommendations based on that history

CONCLUSION

The online shopping project with Django is a reliable e-commerce application that enables users to browse and purchase products online securely. The system provides users with an easy-to-use interface, secure payment processing, and robust database management.

The implementation of the online shopping system involves customers logging in to the website to choose and place their order, checking out and clear the due with a payment option and also keep track of their products till the delivery. The admins who have access to the system dashboard and database can manage the backend and performing administrative tasks. They ensure that the system is up-to-date, secure, and meets the requirements of the customers and the business. The system architecture follows a client-server model where the navigation and data retrieval are made simple to create an economic relation between the seller and the customers. And a feasible and effective e-commerce website can be made by following the recommended methodologies and suggestions provided by the documentation.