Software Engineering (HNDIT-4012)

Promoting Greenery Website – Technical Report

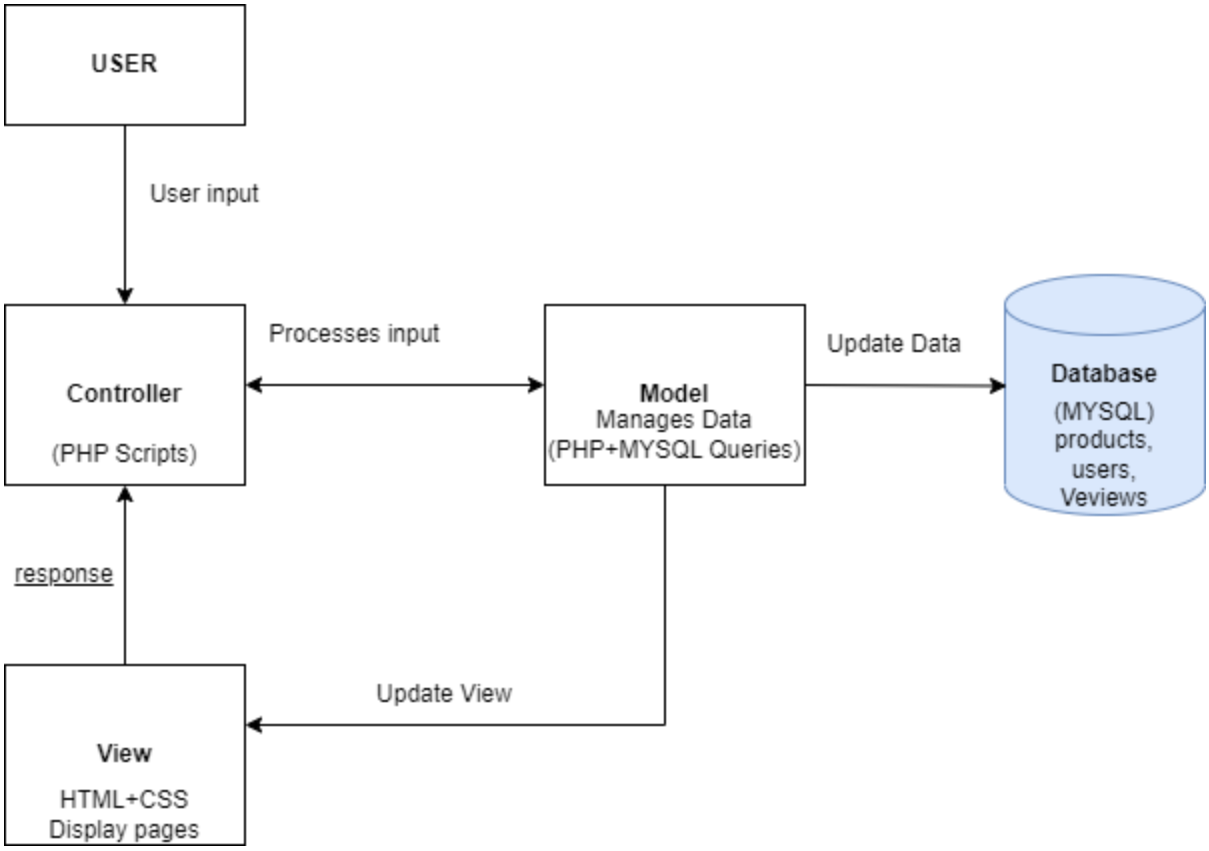
(Individual Assignment)

KEG/IT/2022/F/0064

Case Study 1 – MVC Model for Web Application

Model-View-Controller (MVC) Diagram:

- Model: Handles the data and business logic (e.g., MySQL + PHP code that manages user data, cart items, reviews).
- View: What the user sees (e.g., your index.html, beautyland.html, etc. styled with CSS).
- Controller: Handles user input and communicates between View and Model (e.g., PHP scripts that process form submissions, login, etc.).



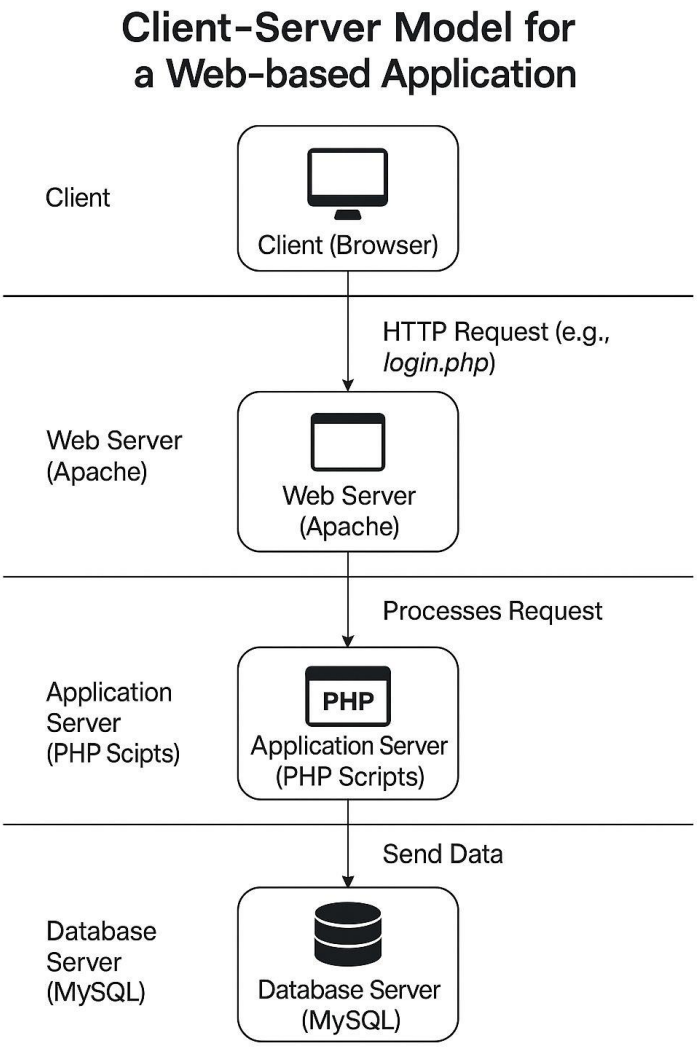
- Tools: PHP, HTML/CSS/JS, MySQL, Draw.io
- **Model**: Database of plants, orders, users.
- **View**: UI elements showing products, checkout forms.
- **Controller**: Handles product searches, order placement, and user authentication.

Case Study 2 – Client-Server Model

The CSM is It shows how your website works behind the scenes:

- The Client (browser) sends requests (like “login” or “view product”).

- The Server processes the request and sends back the response (like a page or data).

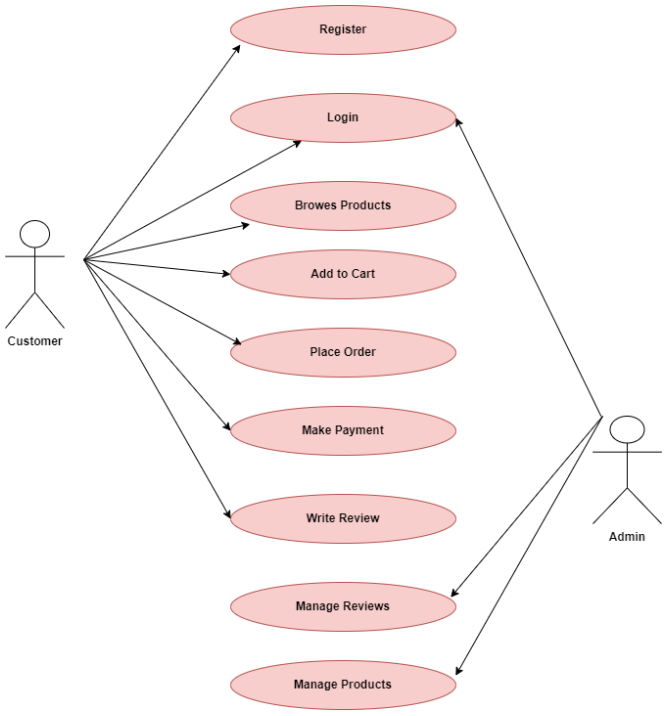


1. Client
    - Server model is about the architecture:
        - Browser (Client) ↔ Server (PHP + MySQL)
        - MVC is about the design pattern inside the server:
        - How PHP (Controller) connects the database (Model) and shows results to the user (View)

Case Study 3 – Use Case and Class Diagram

Use Case Diagram

A Use Case Diagram represents the interaction between users and a system, outlining its key functionalities.



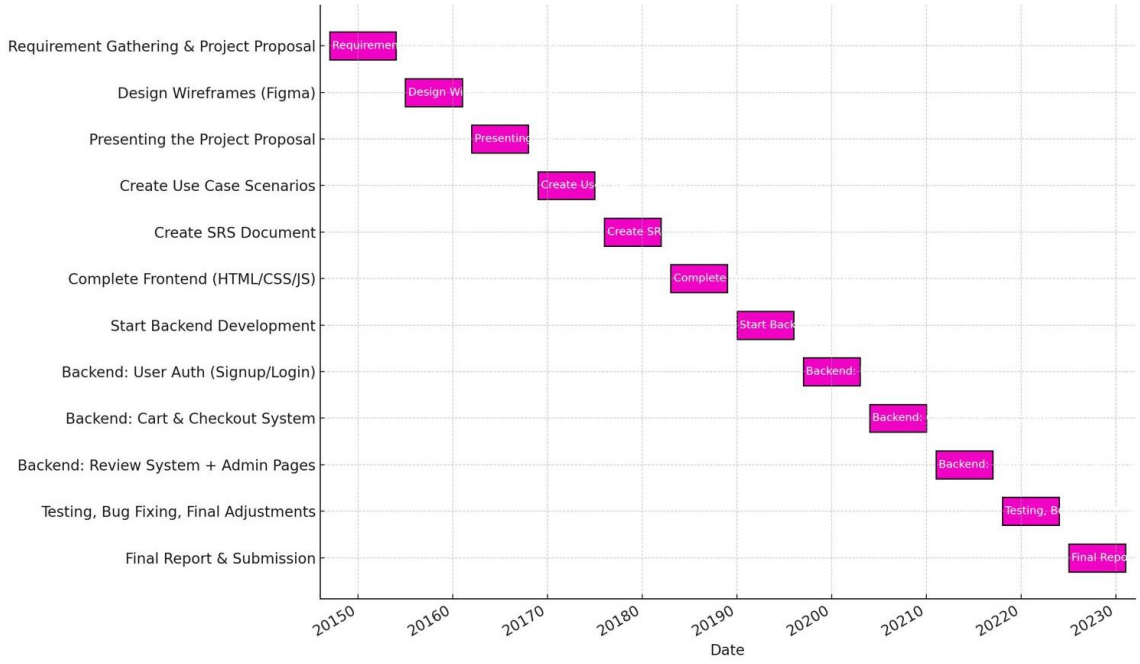
Class Diagram

A Class Diagram defines the structure of the system by showing objects, attributes,

and relationships.

Tools: Draw.io

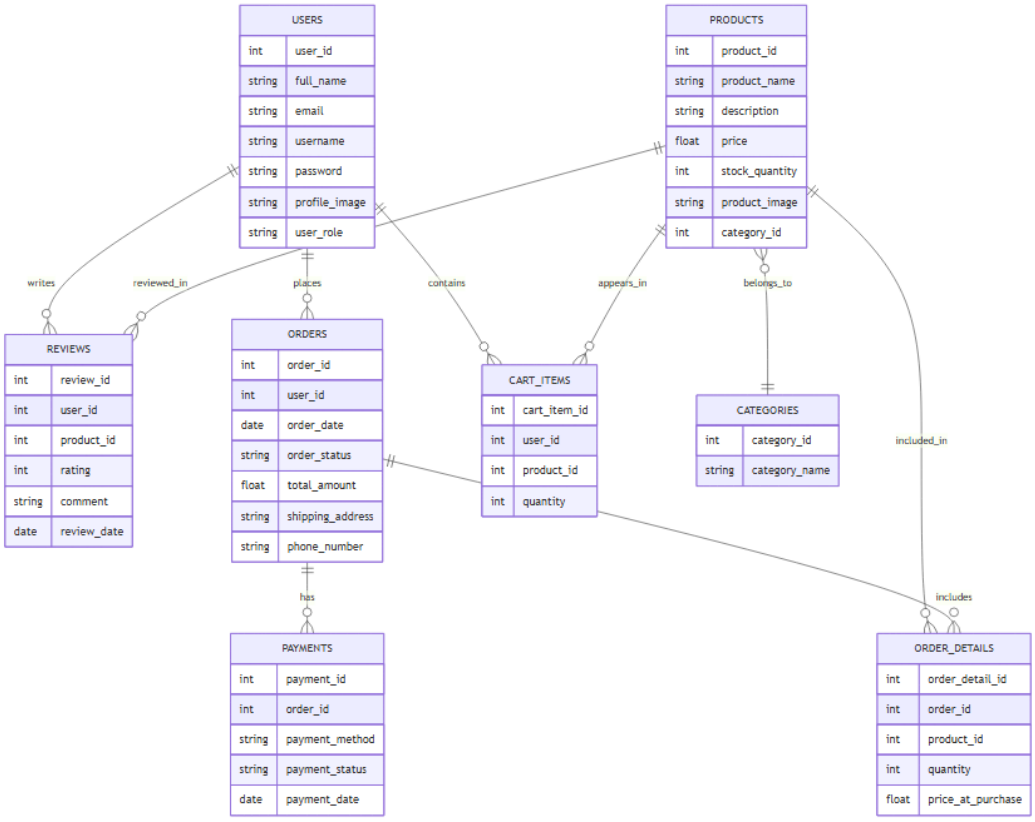
Case Study 5 – Gantt Chart for Project



Tools: Microsoft Project (GanttProject)

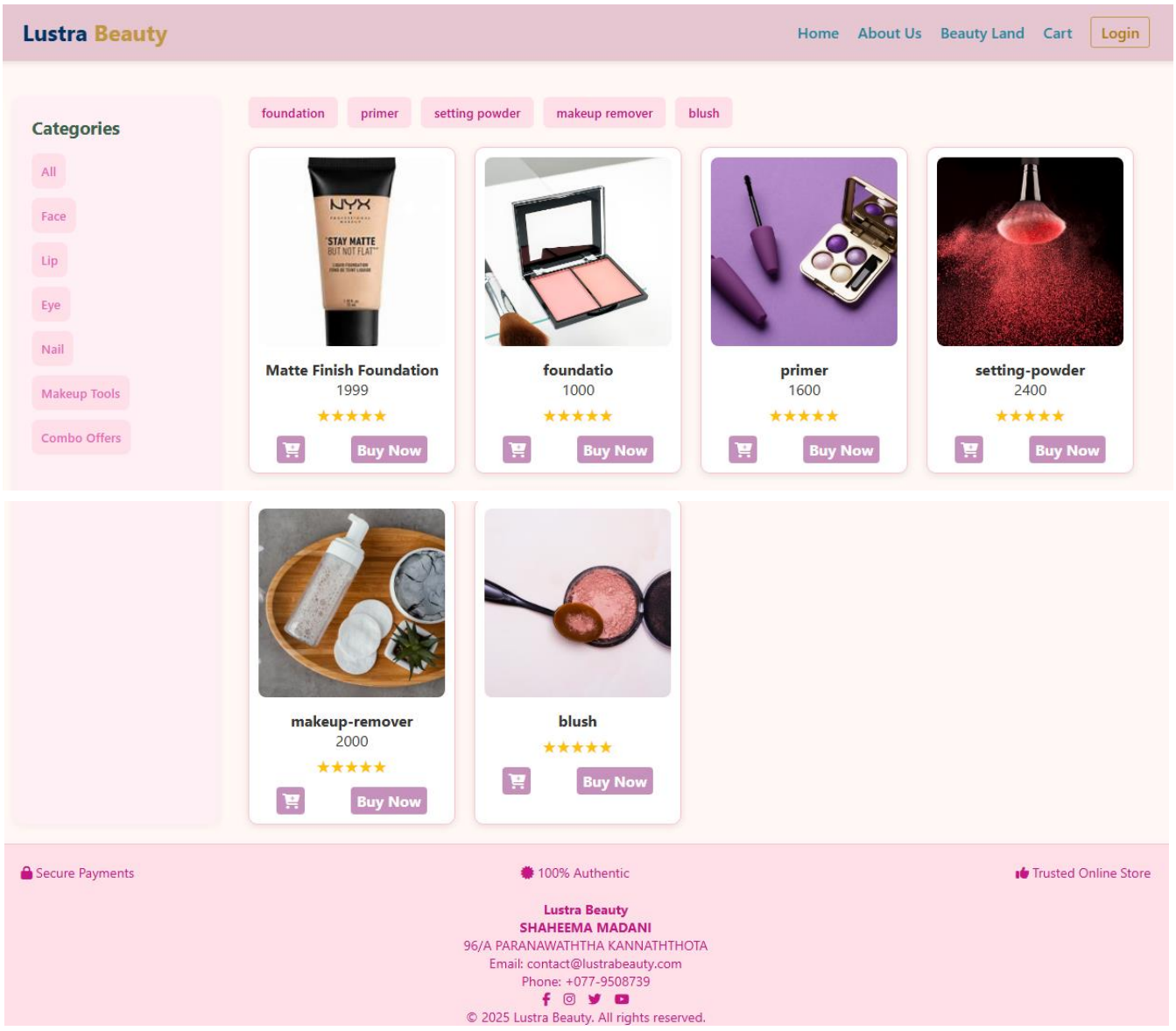
Case Study 6 – ER Diagram for DB

An Entity-Relationship (ER) diagram visually represents the structure of a database by illustrating entities, attributes, and relationships. It helps in designing the database before development begins.

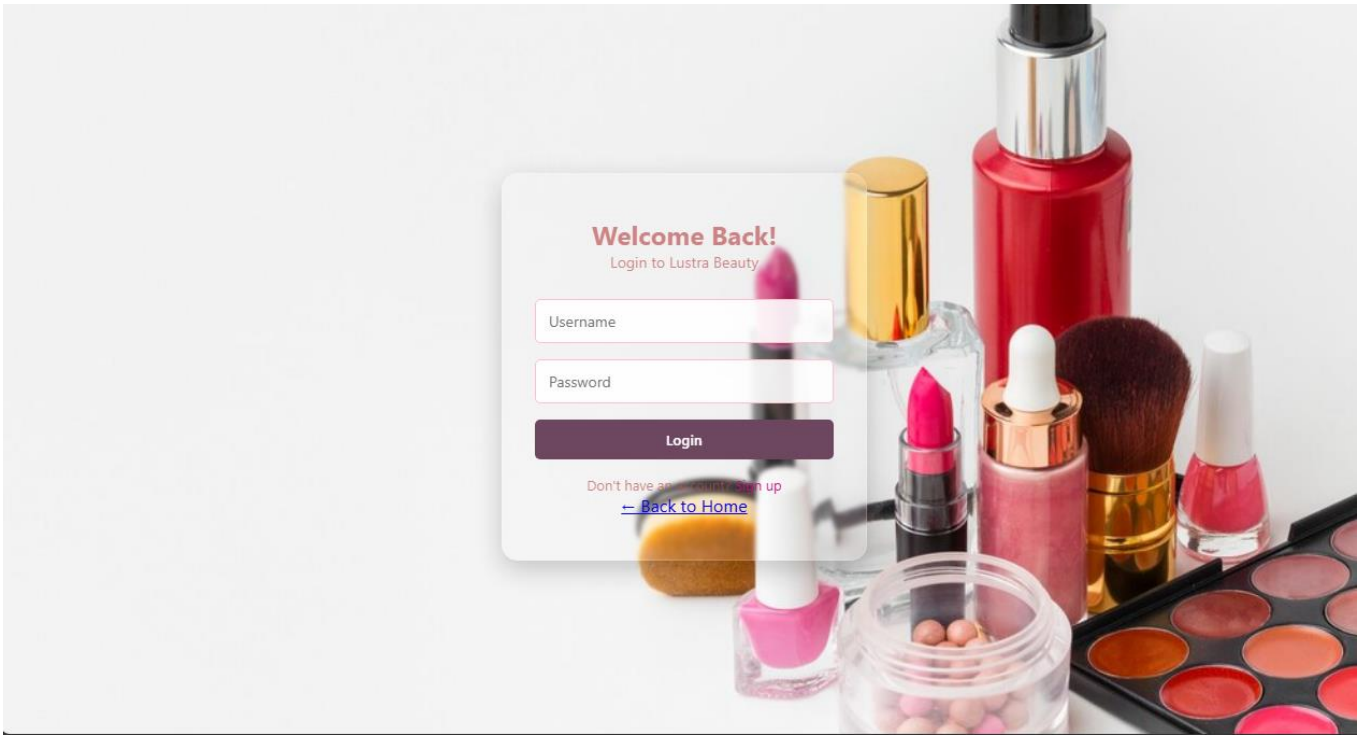


Case Study 7 – Interface Designs

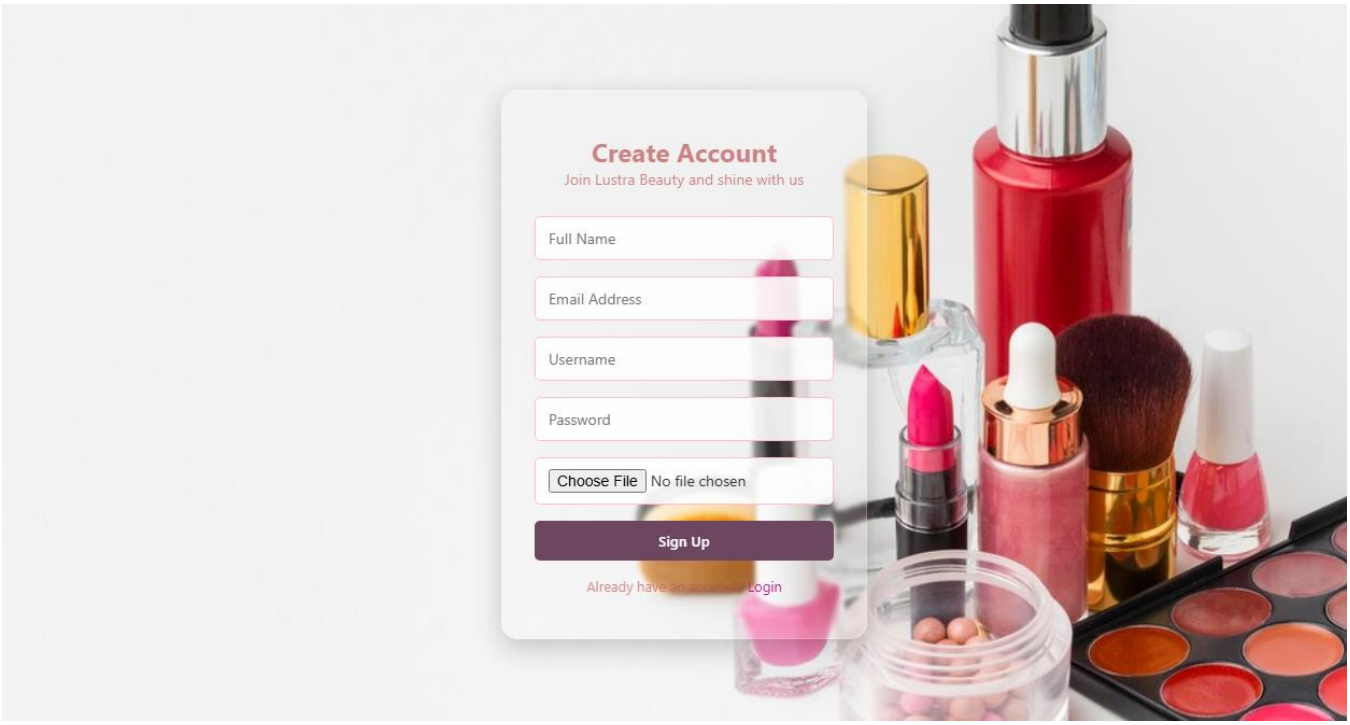
Home page



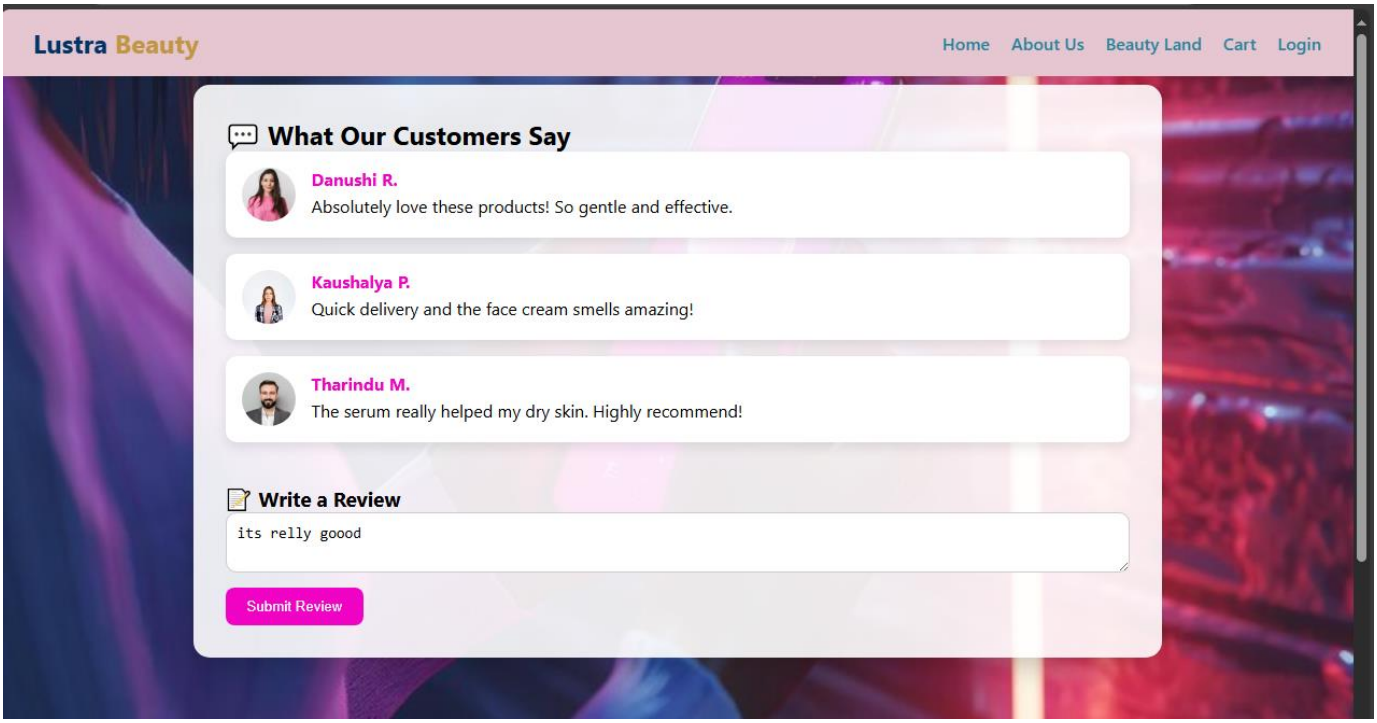
Login


Welcome Back!
Login to Lustra Beauty
Username
Password
Login
Don't have an
sign up
← Back to Home

Signup page



Review



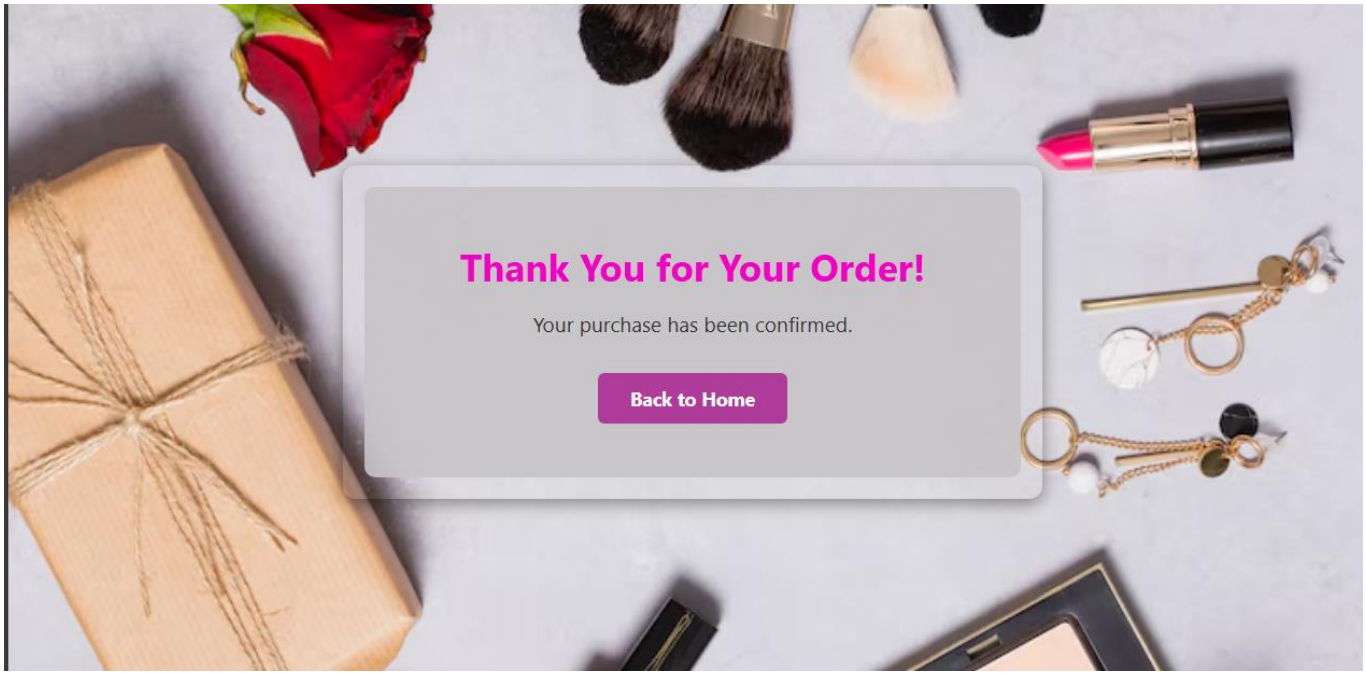
Secure Payments

100% Authentic

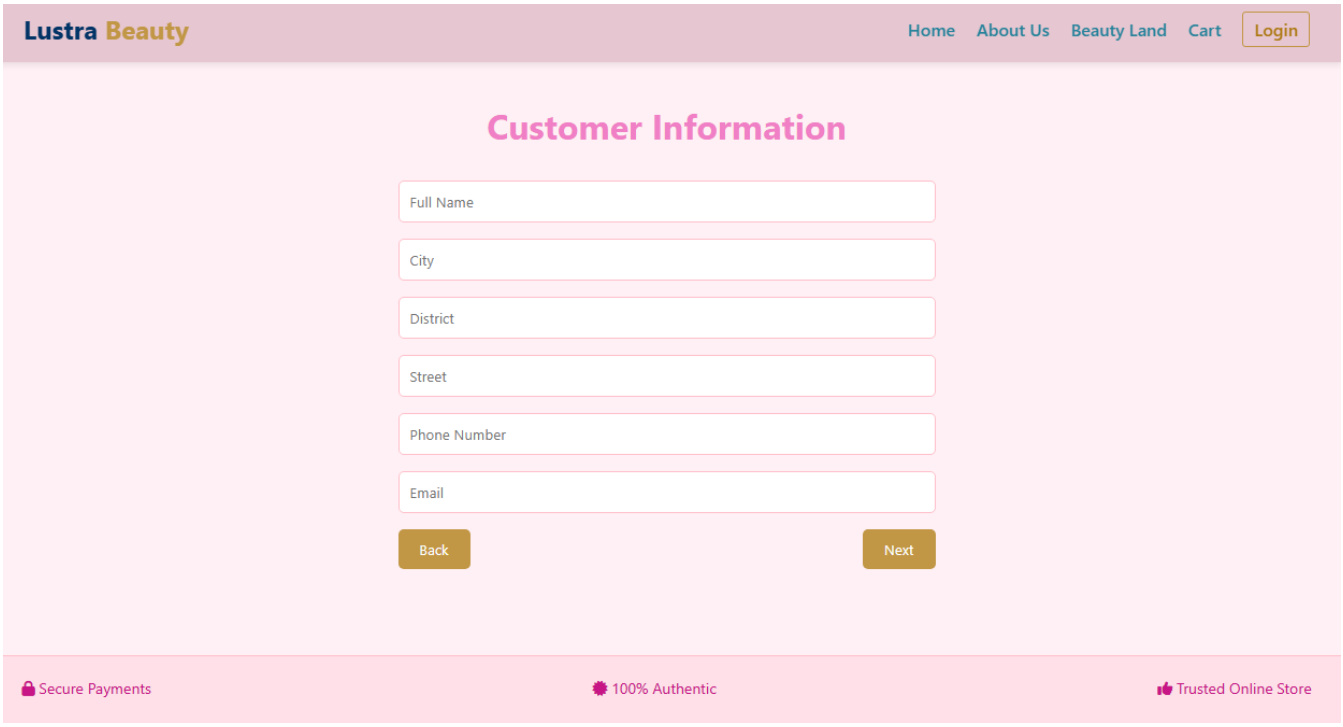
Trusted Online Store

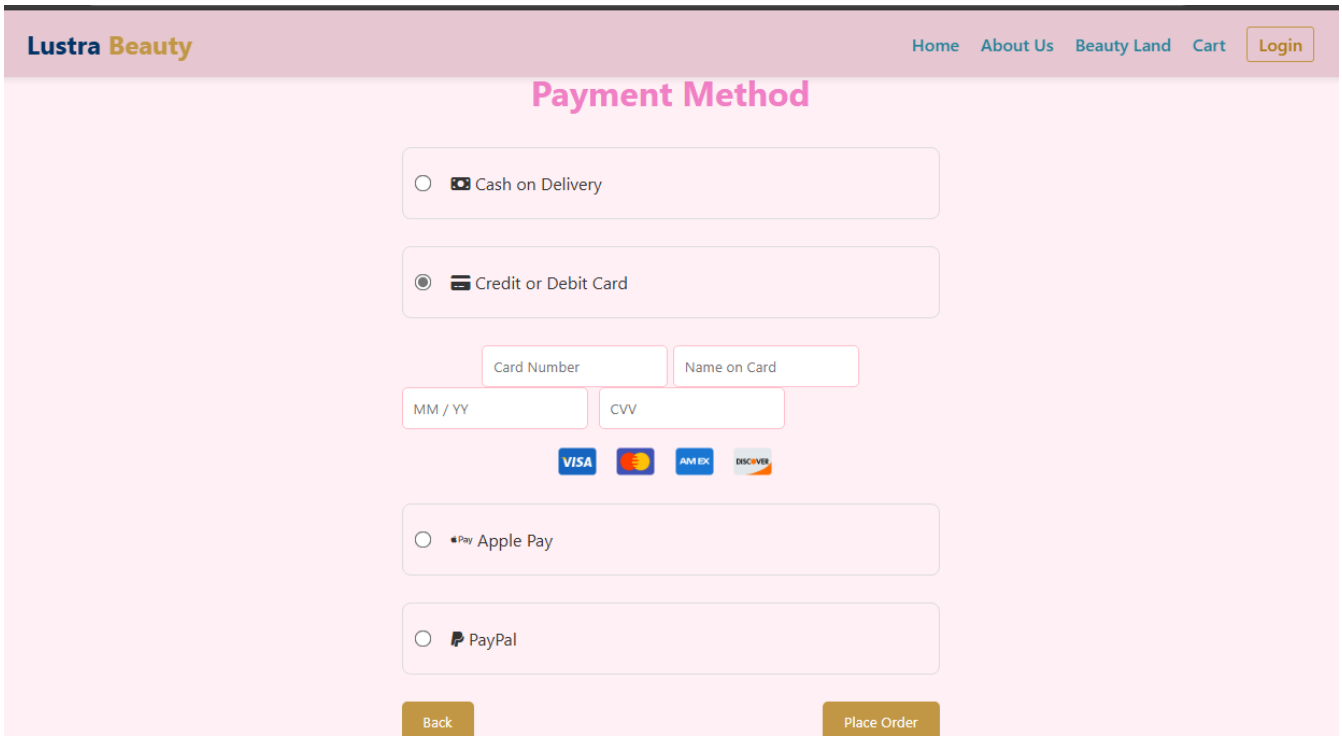
Lustra Beauty
SHAHEEMA MADANI
96/A PARANAWATHTHA KANNATHTHOTA
Email: contact@lustrabeauty.com
Phone: +077-9508739

Thank page


Thank You for Your Order!
Your purchase has been confirmed.
Back to Home

Checkout Page





Desktop UI

Homepage with featured plants, menu bar, testimonials, cart icon.

Mobile UI

Simplified hamburger menu, card-based plant list, floating cart button.

Web UI (Responsive) Grid

layout shop items

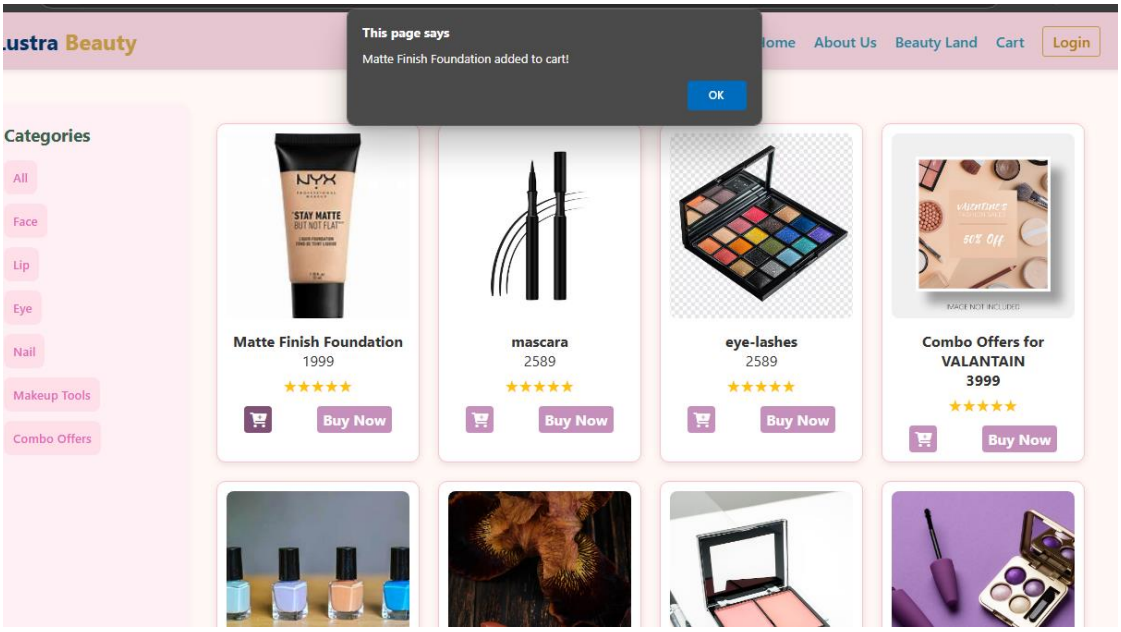
Filter and search at the top

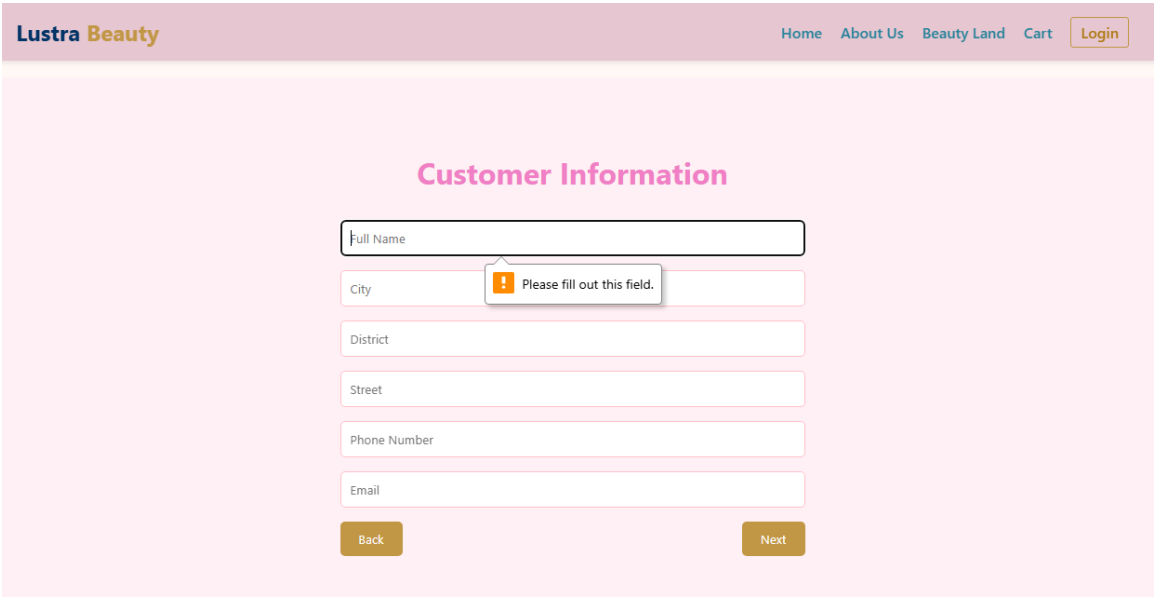
Add-to-cart & category filter buttons

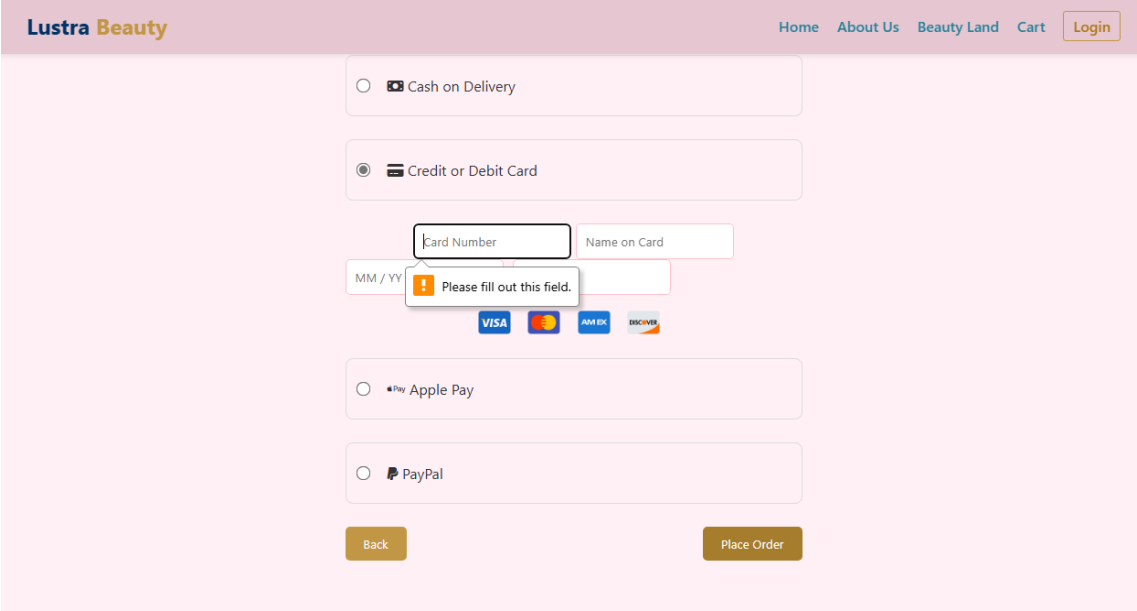
Tools: Figma, Adobe XD, HTML/CSS (Bootstrap)

Case Study 8 – Test Case Sample

Test Case ID	**TC_001**
Description	Test Add-to-cart Functionality
Input	Click “Add-to-cart” on Product Click “Buy Now “ on products
Expected	Item appears in cart with qty
Status	Pass/Fail


ustra Beauty
This page says
Matte Finish Foundation added to cart!
OK
Home
About Us
Beauty Land
Cart
Login
Categories
All
Face
Lip
Eye
Nail
Makeup Tools
Combo Offers
Matte Finish Foundation
1999
Buy Now
mascara
2589
Buy Now
eye-lashes
2589
Buy Now
Combo Offers for VALANTAIN
3999
Buy Now


Lustra Beauty
Home
About Us
Beauty Land
Cart
Login
Customer Information
Full Name
Please fill out this field.
City
District
Street
Phone Number
Email
Back
Next



Case Study 9 – GitHub Overview

What is GitHub?

GitHub is a platform where developers store and manage their code. It uses Git, a system to track changes in files.

✅ Main Activities

- Repository – Project folder to store code
- Commit – Save code changes with a message
- Push – Upload changes to GitHub

- Pull – Get updates from GitHub
- Branch – Work on a separate feature
- Merge – Combine changes
- Pull Request – Ask to merge your changes into the main project

Tools Used in Report:

- Draw.io – Diagrams (MVC, Client-Server, Use Case, Class, ER)
- MS Project / GanttProject – Gantt Chart
- Figma/Adobe XD – Interface designs
- MySQL Workbench – ER diagrams
- GitHub – Version control
- PHP, HTML, CSS, JS – Web Development