

Ecommerce-store

(Your Smart Shopping Assistant)

Project Code

<Project code assigned by the Project Office>

Project Advisor

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1. Abstract

Ecommerce has revolutionized shopping, but many platforms still lack personalization and interactivity. We will developing an advanced ecommerce platform to enhance the online shopping experience for users in Pakistan. By integrating AI-driven features like virtual try on, Chatbot, voice search&ordering, Order tracking in app we aim to make online shopping more engaging and user-friendly, helping customers visualize products before purchasing.

2. Background and Justification

In today's digital era, e-commerce has transformed the way people buy and sell products and services. With the rapid growth of internet users and mobile technology, consumers now prefer the convenience of shopping online rather than visiting physical stores. Businesses are increasingly shifting towards online platforms to expand their market reach, reduce operational costs, and enhance customer satisfaction.

By implementing this system:

- Customers gain a smooth, interactive shopping experience.
- Businesses can expand their customer base and operate 24/7 without geographical limits.
- The integration of modern technologies such as voice recognition enhances usability and competitive advantage.

This project focuses on developing a user-friendly e-commerce store that integrates features such as **voice search, product ordering, and order tracking** to improve accessibility and convenience for users.

3. Project methodology

We will create our ecommerce store first of all we are developing the frontend using HTML, CSS and JavaScript libraries Then we use react library to build a stylish ecommerce store. Then the second part is the backend we are using Django and connecting either SQL or Firebase system. Next, we are working to add advance AI features in our website we have added almost eight features to our store. The features name are (customer chat-bot, image virtual try-on, high selling product display, customer segmentation, stock management, delivery tracking system, customer reviews, notification system, dynamically changing products display).

Key Features

1. **Virtual Try-On System** – Enables users to visualize apparel or accessories through image overlay technology.
2. **Recommendation Engine** – Suggests products based on user behavior, purchase history, and browsing trends.
3. **AI Chatbot** – Provides customer support, product guidance, and handles FAQs in real time.
4. **Voice search** – Users can speak product names instead of typing.
5. **Stock Management & Delivery Tracking** – Monitors inventory and delivery progress efficiently.
6. **Review Sentiment Analysis** – Analyzes customer reviews to identify popular or problematic products.
7. **Notification & Alert System** – Keeps users informed about discounts, delivery status, and new arrivals.

4. Project Scope

Our aim to Pakistani people easily shopping online products and we want to solve customer problems like late delivery, products price high, difficulty in judging which product is best for them. We use advance AI techniques in our store allowing many peoples to shop easily.

5. High level Project Plan

We are researching advance AI techniques and we will add these AI features to our store in the first three months we will only focus on the frontend in the next two months we will work on the backend after that we will spend implementing all the AI features on our website this way our project will be almost complete in eight to nine months, We will also use pre-made templates to enhance our store.

Task	Start Date	End Date	Duration	Phase
Frontend development	11 th October 2025	10th November 2025	1 month	Phase1- frontend
-UI/UX design	12th November 2025	22th November 2025	10 days	Frontend
-HTML/CSS and basic layout	23th November 2025	2 th December 2025	10 days	Frontend
-React integration	2 December 2025	12 December 2025	10 days	Frontend
Backend development	12 December 2025	30 January 2026	1.5 month	Phase-2 backend
-Database design	1 st February 2026	15 th February 2026	15 days	Backend
-API development	16 th march 2026	31 march 2026	15 days	Backend
-Payment integration	1 st April 2026	15 th April 2026	15 days	Backend
AI feature implementation on	15 th February 2026	15 April 2026	1 Month	Phase 3- AI feature
-Virtual tryon image	16 th May 2026	15 th June 2026	1 month	AI feature
Recommended engine	16 th March 2025	14 th April 2026	1 month	AI feature

Testing and optimization	15 th April 2026	1 st May 2026	15 days	Testing and optimization
-Frontend testing	16 th April 2026	20 th April 2026	5 days	Testing and optimization
-Backend testing	21 st April 2026	25 th April 2026	5 days	Testing and optimization
-AI feature testing	26 th April 2026	1 st May 2026	5 days	Testing and optimization

6. References

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- [4] "MySQL Enterprise Edition for Developers," [Online]. Available: <https://www.mysql.com/downloads/>.
- [5] "Implementation of Chatbot in Online Commerce, and Open Innovation," [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S2199853122008940>.
- [6] "Virtual try, artificial intelligence feature," [Online]. Available: <https://blog.google/products/shopping/ai-virtual-try-on-google-shopping/>.
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