

OPTICAL E-COMMERCE WEBSITE

Mini Project / 3rd Sem/ BCS554

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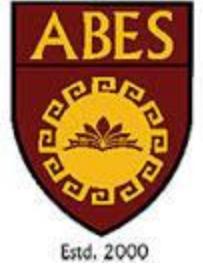
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ABSTRACT

- The Optical E-Commerce Website is an online platform designed to help users browse, select, and purchase eyeglasses, sunglasses, and contact lenses from the comfort of their homes.
- It aims to provide a convenient and interactive experience for users to explore optical products with detailed specifications, images, and virtual try-on options.
- The project integrates front-end and back-end technologies to ensure smooth product display, cart management, and secure order placement.
- It helps small optical businesses expand their customer base by offering digital accessibility similar to major competitors like Lenskart, Cleardekho, etc.
- The platform focuses on quality, comfort, and affordability while ensuring ease of use for all age groups.

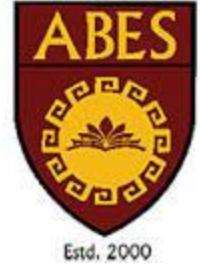
OBJECTIVE

- To design and develop a responsive and user-friendly e-commerce website for optical products.
- To create a database system for managing inventory, customers, and orders efficiently.
- To implement secure and simple payment and checkout features.
- To bridge the gap between local optical shops and online buyers.
- To provide a platform for customers to compare lens types, prices, and frame options.



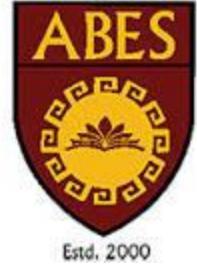
SCOPE of the Problem Statement

- Traditional optical stores have limited reach and require physical visits.
- This website allows users to explore products and place orders 24/7.
- It enables optical shops to showcase their products online and build brand visibility.
- The project's scope includes user registration, product catalog management, order tracking, and admin control.
- Future versions can include AI-powered virtual try-on, prescription lens upload, and home eye-test booking.



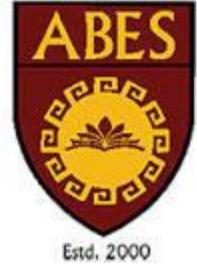
RELATED WORK

- Websites like **Lenskart** and **Titan Eye+** serve as leading examples of optical e-commerce systems.
- Existing platforms offer premium features but often lack localized services or personal customer engagement.
- This project focuses on replicating essential functionalities of major players while giving small-scale optical businesses a competitive edge.



Applications

- Online optical product sales for retail shops.
- Virtual catalog for displaying frames, lenses, and sunglasses.
- Customer database and order management system.
- Online marketing and promotional tool for small optical businesses.
- Easy product access for customers in remote or rural areas.



Limitations

- Virtual try-on and prescription verification are not implemented in the basic version.
- Payment gateway integration may be limited to demo or test environments.
- Requires stable internet connection for smooth user experience.
- Limited scalability for very large inventory systems.

Conclusion and Future Scope

- The Optical E-Commerce Website provides a modern solution to traditional optical retail challenges.
- It enhances customer convenience and helps optical stores build a digital presence.
- Future improvements include integrating AR-based virtual try-on, AI product recommendations, and real-time inventory tracking.
- The project serves as a foundation for developing a complete optical retail management ecosystem.

References (as per IEEE Standard format)

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