ABESEC Ghaziabad
Department of Computer Science & Engineering

SYNOPSIS REPORT
(Session 2025-26)

Project Title: OPTICAL E-COMMERCE WEBSITE				
Project Type (Web Development)				
	Name	**Roll Number**	**Section**	**Signature**
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Project Guide		**Remarks:**		
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Date of submission				

Contents of Synopsis Report:
Defining what is needed is the first step toward establishing a project timeline, setting of project goals and allocating project resources. These steps will help you to define the work that needs to be done - or in other words, define the scope of the project.

1.1. Problem Introduction

In today's digital age, customers expect convenience, accessibility, and comfort in shopping. Optical shops still rely heavily on offline sales, making it difficult for customers to compare frames, lens types, and styles. This project aims to develop a responsive and user-friendly **optical e-commerce platform** that enables customers to browse, select, and purchase eyeglasses, sunglasses, and contact lenses online with detailed product information, high-quality images, and an interactive virtual try-on experience.

1.1.1. Motivation

The idea for this project originated from observing the sales trends and customer footfall at my own optical shop. Over time, I noticed that while in-store sales were steady, many potential customers preferred the convenience of online shopping. This inspired me to take my optical business online and develop a platform where customers can easily explore, try, and purchase eyewear from the comfort of their homes. The goal is to combine the trust of an offline shop with the accessibility and reach of an e-commerce platform.

1.1.2. Project Objective

- To design and develop a responsive and user-friendly e-commerce website for optical products.
- To implement a product catalog with images, specifications, and virtual try-on options.
- To enable customers to add items to the cart and complete secure checkout.
- To create an admin dashboard for managing inventory, orders, customers, and offers.
- To ensure accessibility (WCAG AA), affordability, and usability for all users.

1.1.3. Scope of the Project

The system can be used by:

- **Optical shops** to digitize their sales process.
- **Customers** to purchase eyewear and lenses online.

- **Administrators** to manage stock, customers, and orders.

Future extensions may include **AI-based frame recommendations**, **prescription uploads**, and **real-time AR try-on** integration.

1.2. Related Previous Work

(It briefly includes previous work carried out in the suggested field, researching the problem studied, summarization of the results obtained etc.) Include the review content of atleast 2-3 research papers related to your project title.

1.3 Software and Hardware requirements

Software:

- HTML, CSS, JavaScript, Bootstrap (Frontend)
- MySQL / Firebase (Database - future expansion)
- VS Code (Development IDE)
- XAMPP or Localhost (Optional for backend testing)

Hardware:

- Intel i3/i5 or higher processor
- Minimum 4GB RAM
- Internet connectivity
- Webcam (optional for AR try-on)

1.4 Proposed Method

1. Requirement analysis and UI design.
2. Frontend development using HTML, CSS, and Bootstrap.
3. Product catalog and image gallery integration.
4. Shopping cart and checkout page design.
5. Admin dashboard (inventory and order management).
6. Testing for responsiveness and accessibility.
7. Deployment on hosting platform (optional).

1.5 References

1. Bootstrap Documentation
2. W3Schools
3. Research papers on AR-based online shopping (IEEE, Google Scholar)
4. TutorialsPoint, GeeksforGeeks – E-commerce Website Frontend Guides

(Project Guide may make necessary changes in the contents mentioned above as per the requirements of project)