

# **Project Proposal**

## **Title: A Scenic Visualization of Marine Drive using OpenGL**

### **Team Member List:**

Name	Id	Contribution
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### **Introduction:**

Marine Drive is a scenic coastal road that stretches along the Bay of Bengal. This project aims to capture the beauty and serenity of the Marine Drive using computer graphics. Through this project, we will illustrate the coastal road, the surrounding sea, trees, vehicles, and buildings to give a virtual representation of the environment. This type of simulation helps to visualize real-life infrastructure and can be useful for educational and promotional purposes.

### **Environment & Methods:**

We will use **OpenGL** as our graphics environment to build this simulation. The project will be developed in **C/C++** using the **GLUT** library. Our method involves creating various static and dynamic components such as roads, water waves, sky gradients, and moving cars. We will utilize 2D/3D rendering techniques to provide a realistic experience and implement animation through frame-based updates and keyboard interaction.

### **Feature Set:**

- Road with lane markings and divider
- Blue ocean with animated waves
- Coconut trees on both sides of the road
- Moving cars
- Colorful sky representing different times of day
- Buildings and hotels near the shore

## **Conclusion:**

This project will provide a basic yet visually appealing representation of the Marine Drive. It demonstrates the use of computer graphics in real-world simulations. Through this project, we aim to enhance our knowledge of graphics programming, animation techniques, and creative design. It will serve both as a learning tool and a visual treat for viewers interested in coastal architecture and travel destinations.