Project Report on Real-Time Collaborative Text Editor

- Under the Guidance of **Dr. Oishila Bandyopadhya** (Assistant Professor) Department of Computer Science and Engineering IIITKalyani

📌 **Project Title:** Design online multiplayer gaming system using multiple clients and one server. Server will release the score of players and declare the winner at the end of the game.

- **Project GitHub Repository:** https://github.com/shibv/TextEditor

Introduction:-

The project aims to develop a real-time collaborative text editor where multiple users can join a particular room using a unique socket key and collaborate on text editing tasks in real-time. The application utilizes modern web technologies such as **ReactJS, Node.js, Socket.IO, CSS, and integrates MongoDB** for persistent data storage.

Features:-

- **Real-Time Collaboration:** Users can join a specific room using a unique socket key and collaborate in real-time on text editing tasks. Changes made by one user are immediately reflected for all participants in the same room.
- **Rich Text Editing:** The application employs the Quill editor to provide a rich text editing experience for users, allowing them to format text, add images, and more.
- **Persistent Data Storage:** All text editing sessions and changes made by users are stored in MongoDB, ensuring that the data persists even after users leave the session or refresh the page.