

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

**Class /Sem : III yr /06**

**Date: 24/01/2026**

**Batch : C14**

**Project Guide: Dr.Y.Baby Kalpana Prof/CSE**

**ProjectTitle:DevSphere**

### TeamMembers:

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|---------------|--------------|
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### Abstract :

DevSphere is an innovative MERN stack platform designed to revolutionize collaborative coding by enabling multiple developers to work together in real-time, similar to Google Docs, while coding. It features a multi-user code editor with live cursor tracking, conflict-free editing, and support for popular programming languages like JavaScript, Python, HTML/CSS, and Java. Integrated AI-driven debugging provides instant error detection, suggested fixes, code explanations, and performance optimization tips, helping developers write cleaner, more efficient code. Additionally, DevSphere includes project management tools such as a file tree, cloud storage, Git integration, and the ability to export projects to GitHub, creating a seamless and intelligent collaborative development environment.

**Modules:****Module 1: Collaborative Code Editor Module**

Purpose: Enable multiple developers to code together in real-time.

**Features:**

- Multi-cursor tracking & live sync
- Monaco Editor with syntax highlighting
- Room creation/joining with user list

**Module 2: AI Debugging Assistant Module**

Purpose: Instant code analysis and fix suggestions.

**Features:**

- Real-time error detection
- AI-powered fix suggestions
- One-click auto-fix implementation

**Module 3: Team Communication & Project Module**

Purpose: Team discussion and project persistence.

**Features:**

- Real-time chat with @mentions
- File tree & multi-file support
- Project save/load & GitHub export

**Project Progress on 24/01/2026:**

Title has been finalized

**Project Plan for 31/01/2026:**

To decide the project overflow and start working on the project