Dept. of **Computer Science and Engineering**

ST. JOSEPH'S
COLLEGE OF ENGINEERING
AND TECHNOLOGY,
- P A L A I -
AUTONOMOUS

24SJPBCST304 OBJECT ORIENTED PROGRAMMING
Project Abstract

TEAM DETAILS			
Sl No	Class Roll No	University Reg. No	Name of the Student
1	47	SJC24CS147	Keerthana G Pillai
2	53	SJC24CS165	Maria S Patani
3	61	SJC24CS186	Pranav S Nair
4	71	SJC24CS212	Thomas Cherian

PROJECT DETAILS
Project Title : ForgeGrid

Project Abstract : ForgeGrid is a minimal Java Swing–based desktop application that transforms coding practice into an engaging, XP-driven journey. Designed with simplicity and structure in mind, it follows a clean Model–View–Controller (MVC) architecture to ensure maintainability and separation of concerns.

The application provides a straightforward interface using Java Swing components (JFrame, JPanel, JButton, etc.) with a single-window design managed by CardLayout for smooth screen transitions. Users can sign up, set their learning goals through a one-time onboarding flow, and complete coding-related tasks to earn XP and level up.

ForgeGrid integrates with a Railway-hosted MySQL database via JDBC, handling authentication, onboarding data, and task progression. The system supports both preloaded and custom user tasks, enabling flexibility in how progress is tracked.

With a minimal yet functional UI and well-organized controllers and services, ForgeGrid demonstrates the practical implementation of software design principles in a gamified context. Its focus on clarity, modularity, and user motivation makes it a lightweight but effective personal growth tracker for developers**.**

Github Repo Link : - https://github.com/Pranavsanthoshnair/ForgeGrid