Software Construction and Development Lab

Submitted by
Areeba Altaf, Nimra Nawaz,
Areeba Shahid

Submitted to Miss Maria Saddiqua

PROJECT CHARTER – "THINKLY" Mini Blogging Website

GENERAL PROJECT INFORMATION

PROJECT NAME	**Thinkly – A Simple Web-Based Mini Blogging Platform**
UNIT	BSSE 5B
TEAM MEMBERS	**Areeba Altaf, Nimra Nawaz, Areeba Shahid**

PROJECT OVERVIEW

BACKGROUND	**Software engineering students need practical projects to apply SCD concepts (UML, OOP, Testing, Databases, Version Control). A small web-based blogging site covers all these areas in a simple, manageable way.**
CURRENT SITUATION & OPPORTUNITY	Existing platforms (Instagram, Twitter/X) are too complex to replicate for students. A mini-blogging platform gives a balanced opportunity to practice the **full SDLC** without overwhelming features.
PROBLEM / ISSUE	Users need a distraction-free space to share short posts. Students need a practical project to learn software construction.
PURPOSE OF PROJECT	Build **Thinkly** – a lightweight mini-blogging platform with signup/login, posting, and viewing features.
BUSINESS CASE	This project applies all SCD course requirements: Requirement Engineering, UML, OOP, Debugging/Refactoring, JUnit Testing, Design Patterns, JSP with JDBC, GitHub version control, and Integration Testing.
OPTIONS / RECOMMENDATIONS	Options: (1) Build a big social clone (too complex), (2) Build a simple text-post website (practical). **Recommendation: Thinkly.**
GOALS / METRICS	- Signup/Login with validation- Post creation & display- MySQL + JDBC integration- UML diagrams (Use Case, Sequence, Class)- OOP concepts (Abstraction, Interfaces)- Singleton pattern- JUnit unit tests- GitHub commits
EXPECTED DELIVERABLES	- JSP pages (Signup, Login, Post, Home)- Java classes (User, Post)- MySQL DB (Users, Posts)- JDBC integration- UML diagrams- Singleton design pattern- JUnit tests- GitHub repository- Final working website

PROJECT SCOPE

WITHIN SCOPE	**User signup/login, creating/viewing posts, JDBC with MySQL, Singleton pattern, JUnit testing, GitHub versioning.**
OUTSIDE SCOPE	AI features, mobile app, file uploads, advanced recommendations, large-scale deployment.

TENTATIVE SCHEDULE

KEY MILESTONE	START	FINISH
Requirement Gathering & Scope	18/09/2025	25/09/2025
UML Diagrams & Design Patterns	26/09/2025	10/10/2025
Frontend Implementation (JSP/HTML/CSS)	11/10/2025	31/10/2025
Backend Implementation (Java + JDBC)	01/11/2025	30/11/2025
Unit Testing (JUnit)	01/12/2025	10/12/2025
Integration & GitHub Versioning	11/12/2025	20/12/2025
Final Project Demo & Submission	10/01/2026	15/01/2026

TEAM ROLES & TASK DISTRIBUTION

Person	Frontend Tasks	Backend Tasks	Database & Testing Tasks
Nimra Nawaz	Design Signup & Login JSP pages	Create Signup Servlet + User class	Create **Users table** in MySQL + validate signup form
Areeba Shahid	Design Home JSP page	Create Login Servlet + session handling	Write **JUnit tests** for User class + GitHub commits
Areeba Altaf	Design Post Form JSP page	Create Post Servlet + Post class	Create **Posts table** in MySQL + write **JUnit tests** for Post class

COSTS

COST TYPE	AMOUNT
Labor	RS 0 (student project)
Tools/Software	RS 0 (NetBeans, MySQL, GitHub are free)
TOTAL COSTS	RS 0

BENEFITS AND CUSTOMERS

PROCESS OWNER	**Areeba Altaf, Nimra Nawaz, Areeba Shahid**
FINAL CUSTOMER	**Submitted to Miss Maria Saddiqua**
EXPECTED BENEFITS	Practical learning of SCD concepts, teamwork experience, a working demo website for viva, GitHub portfolio for future.

RISKS, CONSTRAINTS, AND ASSUMPTIONS

RISKS	**Limited backend knowledge, database connection errors possible.**
MITIGATION	Divide tasks fairly, keep backend simple, use Singleton DB connection, test early.
CONSTRAINTS	Must complete alongside other semester courses, limited time for complex features.
ASSUMPTIONS	Teacher guidance available, free software tools accessible, project scope remains small and focused.