Advanced Software Design Git Lab Task Report
E-Commerce Platform

Module Name and Code: CCS3313-Advanced Software Design

Group: 15

Student ID: 22UG2-0569 Praveen Perera

22UG1-0281 Sahan Wijeshinghe

22UG1-0110 Shakuna Koswatta

22UG2-0227 Chamath Awantha

22UG1-0844 WMTR Wijekoon

22UG1-0801 JMTK jayamanna

1. Introduction

The Advanced Software Design Git Lab Task focused on implementing version control methodologies for our E-Commerce Platform project. This practical exercise aimed to demonstrate collaborative software development techniques, emphasizing the critical role of Git in managing complex software projects. By utilizing version control our team explored systematic approaches to code management, collaboration and project tracking through a comprehensive hands on learning experience.

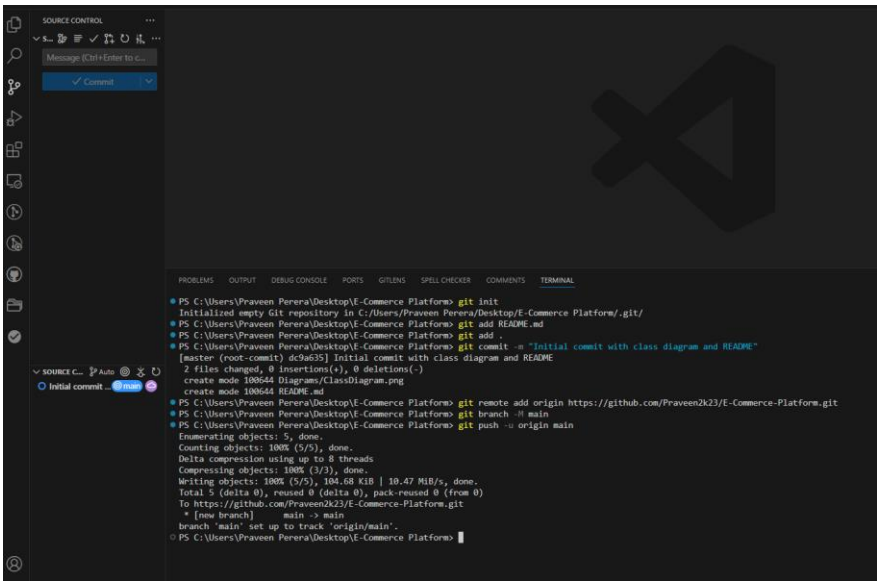
2. Tasks Completed

Repository Initialization

We created a local Git repository for our E-Commerce Platform carefully organizing project files and establishing a structured development environment. This initial step involved initializing the repository creating essential directories and adding project documentation.

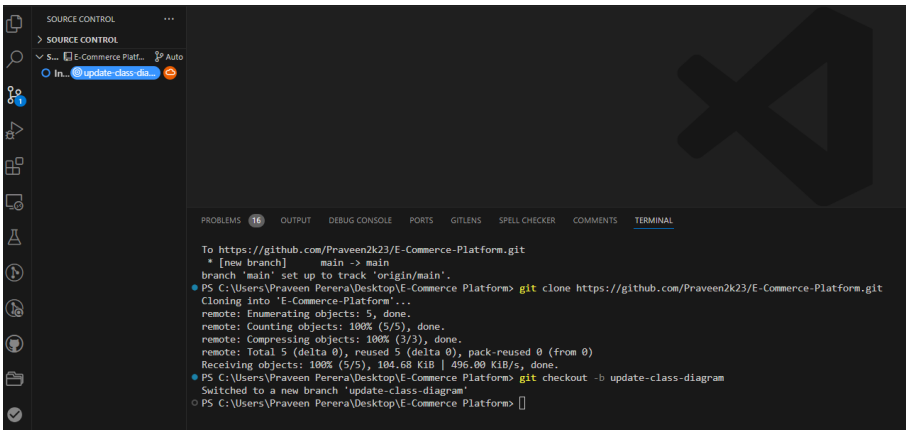
Remote Repository Configuration

Our team successfully set up a remote GitHub repository effectively linking our local project to a collaborative online platform. We followed GitHub's standard procedures to establish remote connections and push our initial project content.



Branching Strategy Implementation

We implemented a structured branching workflow, creating dedicated branches for different project modifications. Each team member practiced creating, switching and managing branches to simulate real world collaborative software development scenarios.



Pull Request and Code Review Process

Team members created pull requests, simulating professional code review practices. We assigned reviewers to examine proposed changes, ensuring code quality, consistency and adherence to project standards before merging.

3. Challenges Faced

Managing simultaneous contributions and maintaining a coherent project structure presented significant challenges. Coordinating branch workflows, ensuring consistent code quality and resolving merge conflicts required careful communication and strategic version control management. Aligning team members' different coding styles and approaches added complexity to our collaborative effort.

4. Key Learnings from Using Git

Git revealed itself as a powerful tool for collaborative software development. We gained deep insights into version control best practices, including branching strategies efficient commit management and pull request workflows. The experience highlighted the importance of clear communication systematic code management and collaborative development methodologies.

5. Conclusion

The Git lab task successfully demonstrated the critical role of version control in modern software development. By applying Git methodologies to our E-Commerce Platform we gained practical experience in collaborative coding project management and professional software engineering practices.