ADDIS ABABA SCIENCE AND TECHNOLOGY UNIVERSITY

UNIVERSITY FOR INDUSTRY

COLLEGE OF ENGINEERING

DEPARTMENT OF SOFTWARE ENGINEERING

CONFIGURATION AUDIT REPORT

Simple User Login & Task List System

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Submission Date: Dec 30, 2025

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1. Project Information

Project Title: SCM Login & Task Management System

Repository Name: scm-login-task-system

Version Audited: v1.0 and v1.1

Audit Date: *Dec 28, 2025*

Auditor: *Mikias Goitom, Natnael Necho, Tamirat Dejene, Temesgen Abebayehu*

Course: Software Configuration Management

2. Introduction

Software Configuration Management (SCM) ensures that software artifacts are systematically controlled, tracked, and maintained throughout the software lifecycle. This Configuration Audit Report evaluates whether SCM practices were properly applied during the development of the SCM Login & Task Management System.

The audit focuses on configuration identification, version control, change management, branching strategy, and release management.

3. Audit Objectives

The objectives of this audit are to:

- Verify that configuration items (CIs) were clearly identified and managed
- Confirm that version control and branching practices were followed
- Ensure that change requests were formally documented and implemented
- Validate that releases were properly created and documented
- Confirm compliance with SCM best practices as required by the assignment

4. Configuration Identification

The following configuration items were identified and managed during the project:

4.1 Source Code

- `login.html`
- `dashboard.html`
- `tasks.json`

These files represent the functional components of the system and were version-controlled using GitHub.

4.2 Documentation

- CI Register
- Change Request Form (CR-Form.docx)
- Configuration Audit Report
- Release notes (GitHub Releases)

4.3 Repository

- GitHub repository used as the central SCM tool
- All configuration items stored and tracked within the repository

5. Version Control and Branching Strategy

GitHub was used as the version control system for the project.

5.1 Branching Strategy

- The **main branch** was used as the stable baseline
- Feature development was performed in **feature branches**
- Changes were integrated into the main branch using **Pull Requests**

This approach ensured controlled integration and traceability of changes.

5.2 Commit Management

- Commits were made with descriptive messages
- Each commit represented a logical unit of work
- Commit history clearly shows feature development and documentation updates

6. Change Management

6.1 Change Request Identification

A formal Change Request (CR) was created to propose an enhancement to the system functionality.

The Change Request included:

- Description of the change
- Reason for the change
- Impact analysis
- Approval status

6.2 Change Implementation

- The approved change was implemented in a feature branch
- Changes were tested locally
- A Pull Request was created for review
- The change was merged into the main branch after completion

This demonstrates a structured and controlled change management process.

7. Release Management

7.1 Release v1.0 – Initial Release

- Represents the first stable version of the system
- Includes login functionality and task dashboard
- Established the initial baseline for future development

7.2 Release v1.1 – Enhanced Release

- Created after implementing the approved Change Request
- Includes improved functionality and usability
- Demonstrates version progression and controlled evolution

Both releases were created using **GitHub Releases** and tagged appropriately.

8. Configuration Audit Findings

The audit found that:

- Configuration items were clearly identified and tracked
- Version control practices were correctly applied
- Change management followed a formal and documented process
- Releases were properly tagged and documented
- SCM principles were consistently applied throughout the project

No major non-conformities were identified during the audit.

9. Limitations

- The project scope was limited to a small system for academic purposes
- Automated testing and CI/CD pipelines were not included
- Despite this, core SCM practices were effectively demonstrated

10. Conclusion

The SCM Login & Task Management System complies with standard Software Configuration Management practices. The project demonstrates effective use of version control, change control, branching, and release management. All SCM activities required by the assignment were successfully completed and documented.

11. Approval

Audited By: *Mikias Goitom, Natnael Necho, Tamirat Dejene, Temesgen Abebayehu*

Signature: *Mikias Goitom, Natnael Necho, Tamirat Dejene, Temesgen Abebayehu*

Date: Dec 28, 2025