ADDIS ABABA SCIENCE AND TECHNOLOGY UNIVERSITY

COLLEGE OF ELECTRICAL AND MECHANICAL ENGINEERING

DEPARTMENT OF SOFTWARE ENGINEERING

Course Name: Software Configuration Management

Deliverable 7

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1. Introduction

1.1 Purpose

This Configuration Audit verifies that the **TaskFlow Pro** project (repository: https://github.com/Gelila-Nebiyu/todo-scm-project) complies with the approved Software Configuration Management Plan (SCMP). The audit confirms proper identification, versioning, and control of Configuration Items (CIs), as well as correct implementation of approved Change Requests (CRs). It ensures configuration stability, full traceability, and readiness for academic evaluation.

1.2 Coverage

The audit focuses on the latest stable configuration (main branch, post-functional enhancements) and references established baselines. Two standard audit types were performed:

- **Physical Configuration Audit (PCA)**: Verification of CI existence, naming conventions, and version consistency.
- **Functional Configuration Audit (FCA)**: Confirmation that approved CRs and core requirements are fully implemented and operational.

2. Scope and References

2.1 Scope

Audited elements include:

- GitHub repository: Gelila-Nebiyu/todo-scm-project
- Configuration Item Register
- Approved Change Requests:
    - CR-001: Task Priority Levels
    - CR-002: Task Due Dates
    - CR-003: Theme and Login Page Styling

- Baselines: BL1 (initial setup, tagged), functional prototype state (post-CR implementation on main branch)
- Source code, documentation, and repository metadata

2.2 References

- Software Configuration Management Plan (SCMP)
- Configuration Item Register
- Change Request documentation
- Baseline Records
- README.md (final version)
- Git commit history, tags (BL1, v1.0.0), and GitHub Release v1.0.0

3. Physical Configuration Audit (PCA)

3.1 Purpose

The PCA ensures that repository contents align with documented CIs, naming conventions, and versioning rules defined in the SCMP.

3.2 Findings

- **Document–Repository Alignment**: All documented artifacts (README.md, configuration files, source code structure, /docs directory) are present and consistent with the CI Register.
- **Naming Conventions**: Component files use PascalCase (e.g., Login.tsx, Dashboard.tsx), configuration files follow standard lowercase naming, and directory structure complies with SCMP guidelines.
- **Version Consistency**: Git tags BL1 and v1.0.0 are correctly applied. Commit history reflects controlled progression. Dependency and configuration files (package.json, tailwind.config.js, tsconfig.json) are properly versioned via Git.
- **Repository Structure**: Core directories (/src, /data, /docs) and key files are intact with no missing or orphaned items.

3.3 Summary

PCA Result: Passed — All Configuration Items are correctly identified, stored, named, and version-controlled.

4. Functional Configuration Audit (FCA)

4.1 Purpose

The FCA verifies that approved Change Requests and project requirements have been fully implemented and function as specified.

4.2 Change Request Verification

- **CR-001 (Task Priority Levels)**: Priority selection (High/Medium/Low) with color-coded badges is implemented in task creation and dashboard display — Fully compliant.
- **CR-002 (Task Due Dates)**: Date picker integration, due date storage/display, and overdue highlighting are functional — Fully compliant.
- **CR-003 (Theme & Login Styling)**: Primary color updated to #880D1E, dark login background applied, and login card centered with modern styling — Fully compliant.

4.3 Requirements Compliance

Core functionality (user authentication with persistence, full task CRUD operations, responsive design) is operational. All enhancements from approved CRs are integrated and verified through local execution (npm run dev) and manual testing.

4.4 Summary

FCA Result: Passed — All approved Change Requests are correctly implemented, and system requirements are satisfied.

5. Results Summary

- Physical Configuration Audit (PCA): Pass
- Functional Configuration Audit (FCA): Pass
- Overall Audit Result: Pass

No discrepancies or non-compliances were identified.

6. Issues, Risks, and Recommendations

6.1 Issues

None identified during the audit.

6.2 Risks

- Potential configuration drift in future multi-contributor scenarios without enforced branch protection.
- Lack of formal release tag for final CR-integrated state (recommended: v1.1.0 and BL2).

6.3 Recommendations

- Create and publish Git tag v1.1.0 and baseline tag BL2 on the current main branch HEAD to formally capture the complete system.
- Implement GitHub branch protection rules for main.
- Consider automated testing or CI workflows for future regression verification.
- Maintain rigorous adherence to the Change Control process for any post-submission modifications.

7. Conclusion

This Configuration Audit confirms that the TaskFlow Pro project fully adheres to the Software Configuration Management Plan. All Configuration Items are properly controlled, approved Change Requests are implemented, and functional requirements are met. The project configuration is stable, traceable, and approved for academic submission.

Audit Conducted By: Group Configuration Manager / Team Members **Baseline Audited**: Latest configuration (post-CR implementation); references BL1 **Date**: December 26, 2025