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SOFTWARE CONFIGURATION MANAGEMENT PLAN (SCMP)
Simple User Login & Task List System

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1. Purpose and Scope

1.1 Purpose

The purpose of this Software Configuration Management Plan (SCMP) is to define the processes, roles, tools, and procedures used to manage and control configuration items (CIs) for the *Simple User Login & Task List System* project.

This plan ensures that all project artifacts are properly identified, versioned, controlled, and auditable throughout the project lifecycle.

1.2 Scope

This SCMP applies to:

- Project documentation
- Source code files
- Configuration items
- Change requests
- Baselines
- Releases

This SCM plan focuses on **SCM practices and process implementation**, not on software complexity.

2. Project Overview

The *Simple User Login & Task List System* is a small web-based prototype designed to demonstrate Software Configuration Management concepts.

System Features:

- Login page (basic UI, no real authentication)
- Dashboard page displaying a list of tasks
- One core function: adding a new task
- Simple data storage using a JSON file

The project uses simple web technologies and GitHub for configuration control.

3. SCM Objectives

The objectives of SCM in this project are to:

1. Identify and manage configuration items.
2. Maintain version control using Git and GitHub.
3. Control and track changes through a Change Request (CR) process.
4. Establish and manage baselines.
5. Manage releases in a controlled manner.
6. Conduct configuration audits to ensure consistency and correctness.

4. Roles and Responsibilities

Role	Responsibility
SCM Manager	Oversees SCM process, approves changes, manages baselines and releases
Developer	Implements features and approved changes
Documentation Manager	Maintains project documents
Quality Assurance (QA)	Verifies correctness and consistency
Auditor	Conducts configuration audits

Each team member is responsible for the SCM procedures defined in this plan.

5. Configuration Item (CI) Identification

5.1 Configuration Items

Configuration Items include all project artifacts that need to be controlled.

Examples:

- SCM Plan document
- CI Register
- Change Request forms
- HTML, CSS, and JavaScript files
- JSON data file
- README file

5.2 CI Naming Convention

CIs shall be named using the following format:

- <CI_Name>_<Version>.<extension>

Example:

- login_v1.0.html
- SCMP_v1.0.pdf

6. Version Control and Versioning Rules

6.1 Versioning Scheme

- **Documents**: v1.0, v1.1, v2.0
- **Source Code**: v1.0, v1.1
- **Releases**: v1.0, v1.1

6.2 Version Updates

- Minor changes increment the decimal (v1.1).
- Major changes increment the whole number (v2.0).

7. Branching Strategy

GitHub is used as the version control system.

Branches:

- **main** – stable branch
- **feature-login** – login feature development
- **feature-dashboard** – dashboard and task feature development

Branching Rules:

- All development occurs in feature branches.
- Pull Requests (PRs) are used to merge changes into **main**.
- PRs must be reviewed before merging.

8. Change Control Process

8.1 Change Request (CR) Process

All changes must be submitted through a Change Request form.

Steps:

1. Submit Change Request
2. Review by SCM Manager
3. Approval or rejection
4. Implementation of approved changes
5. Update Change Log

8.2 Change Log

All approved and implemented changes are recorded in the Change Log document.

9. Baseline Management

9.1 Baseline Definition

A baseline is a formally approved version of a set of configuration items.

9.2 Project Baselines

- **Baseline 1 (BL1):**
 - Repository structure
 - Initial documentation
 - CI Register
- **Baseline 2 (BL2):**
 - Working prototype
 - Approved Change Requests implemented

9.3 Baseline Identification

Baselines are tagged in GitHub using:

- BL1
- BL2

10. Release Management

10.1 Releases

Two releases are planned:

- **Release v1.0** – Initial working system
- **Release v1.1** – System after CR implementations

10.2 Release Notes

Each release includes release notes describing:

- Features included
- Changes made
- Known limitations

Releases are managed using GitHub Releases.

11. Configuration Audit

11.1 Physical Configuration Audit (PCA)

Ensures:

- All CIs are present in the repository
- Correct naming and versioning
- Documents match repository contents

11.2 Functional Configuration Audit (FCA)

Ensures:

- Approved CRs are implemented
- System functionality matches requirements

Audit results are documented in the Configuration Audit Report.

12. Tools and Environment

Tool	Purpose
Git	Version control
GitHub	Repository hosting, PRs, releases
HTML/CSS/JavaScript	Frontend development
JSON	Data storage

Google docs	Documentation
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13. SCMP Approval

This Software Configuration Management Plan is approved and effective upon agreement by the project team.

Prepared by: SCM Manager (Natnael Fisseha)

Approved by: Project Team (Mikias Goitom, Natnael Necho, Tamirat Dejene, and Temesgen Abebayehu)