Software Configuration Management Plan (SCMP)

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Introduction

This SCMP provides a detailed approach to managing the software configuration for the BU Flea Market Project. It defines the processes and tools used to manage software CIs, version control, change control, and the establishment of baselines.

Configuration Identification

Detail the CIs for the project including documentation, code, designs, and other artifacts. Each CI will be named using a unique identifier and versioned accordingly.

Configuration Control

Describe how changes to the CIs will be requested, reviewed, approved, and implemented. This includes how change requests are filed, how impact analysis is conducted, and who has the authority to approve changes.

Configuration Status Accounting

Establish how information about the status of CIs and any requested changes will be recorded and reported. This includes the use of Jira for tracking changes and GitHub for documenting the history and current version of code.

Configuration Auditing

Explain the process for verifying the integrity of CIs. Regular audits will be conducted to ensure that CIs conform to specified requirements and to identify unauthorized changes.

Tools and Technologies

Version Control: GitHub to track and manage changes to the software codebase.
Back-end/Front-end/Database: Python (Django), HTML, CSS, Javascript, React, SQLite/MySQL will be used and their versions will be managed.
Hosting: AWS to ensure the availability of the latest version of the application.

Build Management

We will establish a systematic approach to build management by defining clear procedures for compiling and linking code into executable software. This includes:
Utilizing automated build tools like Jenkins or GitHub Actions to ensure consistent build environments.
Maintaining build records that document the build process, tool versions, and parameters used for each build.
Handling different build configurations for development, testing, and production environments.

Release Management and Delivery

Our release management process will include the following steps:
Finalization of software versions through a rigorous QA process and approval from the Configuration Control Board.
Packaging of software in deployable containers or executable files with appropriate version tags.
Deployment to production using automated deployment tools integrated with our version control system, ensuring smooth rollout of new features.

Schedule for SCMP Reviews

SCMP document reviews are scheduled as follows:
Bi-weekly during the development phase.
After each major project milestone to ensure that the SCMP is still aligned with the project needs.
Following the release of major versions of the software to assess the effectiveness of the SCM processes and to make any necessary adjustments.

Team Roles & Responsibilities in SCMP

Assign roles for configuration management activities, such as Configuration Manager, Build Manager, etc.
Detail responsibilities for creating baselines, handling change requests, and conducting configuration audits.

Communication Management in SCMP Context

Communication protocols will include:
Regular configuration status meetings.
Use of communication tools like WhatsApp for discussing changes and updates.
Formal change request and notification process through Jira.

Training & Development for SCMP

We will conduct training sessions for team members on:

Use of configuration management tools.

Best practices in version control and build management.

Procedures for effective change control and audit processes.

Plan for training team members on configuration management tools and processes.

Conclusion

This SCMP aims to maintain the integrity and traceability of software CIs throughout the project lifecycle, ensuring that all software builds and releases are consistent and up to standard.