1. Determine baselines for an agile approach to creating the SAMS website. Baselines are milestones and associated configuration items.

a. Identify the baselines (milestones)

i. The start of the project, each iteration and the project close, are milestones – Identify each iteration by the iteration number.

ii. CS406\_SAMS (The overall project)

1. Planning

2. Iterations

a. Iteration\_1

b. Iteration\_2

c. Iteration\_3

i. Development phases within each iteration are milestones.

1. Planning,

2. Requirement

3. Design

4. Implementation

5. Integration

6. Validation

3. Close Project

b. In the lab assignment for this week a Git repository will be created to store your CIs. During the lab, keep in mind that the directory structure that you want to setup in your repository should reference the baselines identified.

i. CS406\_SAMS

1. Planning

a. Project\_Mangement

b. Configuration\_Management

i. Identified\_CIs\_document

c. Risk\_Management

i. Identified\_Risks\_document

2. Iteration\_1

a. Planning

b. …

c. Validation

3. Iteration\_3

a. …

 4. Iteration\_3

a. Planning

b. Requirements

c. Design

d. …

 2. Identify SCIs associated with each baseline

ID number—A unique ID to identify the SCI

Name—The name of the configuration item

document type—The type of the document of the SCI

document file—The document file or the full path name for the file that contains the SCI.

author—The developer who creates the configuration item.

date created, target completion date, and date completed—These are useful for tracking the status of the SCI.

version number—This is used to keep track of the multiple versions of a configuration item.

update history—A list of update summaries, each of which briefly specifies the update, who performs the update, and date of update.

description—A brief description of the configuration item.

SQA personnel—A technical staff who is responsible for the quality assurance of the configuration item.

SCM personnel—A technical staff who is responsible for checking in the con- figuration item.

3. Define a naming scheme for each type of CI identified.

4. Identify the events that will mandate changes to each type of CI identified.

Software deficiencies

Hardware changes,

Changes to operational requirements

Improvement and enhancement requests from customer and users

Changes to budget, project duration, and schedule

5. Describe what information should be included in an ECP, engineering change proposal.

a. Description of the proposed changes.

b. Identification of originating organization or developer.

c. Rationale for the changes.

d. Identification of affected baselines and SCIs.

e. Effort, time, and cost required to implement the proposed changes as well as the priority of each of the proposed changes.

f. Impact to project schedule.

6. Change control Auditing

a. Describe the steps needed for a baseline to transition from TBE to a formal baseline.

established when all of the associated configuration items are produced and pass SQA inspection, review and/or testing, and entered into the SCM system.

b. Describe methods to ensure that the identified CIs entered in the SCM system for change control. (Visual inspection works for small projects)

c. Describe how CIs will be checked for correctness.

Version control. The objective of version control is to manage the releases, versions, and revisions of a software system. It is used during the development process as well as the maintenance phase.

Workspace management. Software engineers work together to design and implement a software system. To coordinate the work of the software engineers, a central repository of software artifacts is needed.

Concurrency control. Software engineers may need to work on the same set of files simultaneously, which may result in inconsistent updates. Concurrency control provides mechanisms to enable or disable concurrent updates.

System build. The system build capability allows the team to specify the system configuration, that is, which versions of which components should be included in a system. The SCM tool will automatically compile and link the components to produce the executable system.

Support to SCM process. This capability is aimed at automating the SCM procedures described in previous sections.

d. Describe how change control auditing will ensure the changes in approved ECPs are implemented in a timely manner.

Defining mechanisms for establishing and formally establishing a baseline

Configuration item verification. This ensures that what is intended for each con- figuration item as specified in one baseline or update is achieved in a succeeding baseline or update

Configuration item validation. This checks the correctness to ensure that the con- figuration item solves the right problem.

Ensuring that changes specified in approved ECPs are properly and timely implemented.