Hacettepe University
Department of Computer Engineering

BBM 384
Configuration and Change Management Report

Group 12- Tesla

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1. Purpose

This document will provide information on possible changes in the system and on decision making mechanisms for changes.

2. Configuration and Change Management Specifications

Configuration management is a systems engineering process for creating a basis for product and keeping performance, functionality of product in that basis with requirements, design throughout product's life. Configuration management helps to check and confirms that system performs as intended. Configuration management has got 4 activities: Change management, Version management, System building, Release management.

Changes are inevitable in development processes. Systems keep evolving. However systems cannot accept every change. Change management deals with keeping track of requests for changes to the software from customers and developers, working out the costs and impact of making these changes, and deciding if and when the changes should be implemented. Software change management is the process of selecting which changes to encourage, which to allow, and which to prevent, according to project criteria such as schedule and cost.

Software configuration management is about tracking and controlling changes in the software, and it is a part of the larger cross-disciplinary field of configuration management. Revision control and establishment of baseline are practices of software configuration management. GitHub is a Source Code Management (SCM) system. It allows revision and tracking and controlling changes. So by using GitHub,we are managing our main configurations and changes. All the older versions of the project is stored in GitHub and changes between versions can be viewed. When a developer edits or creates a new module he/she will send it to GitHub with a proper description, explaining what is changed briefly. This helps keeping track of changes. Also developers can work on different parts of the project using branches in GitHub. After the changes are done, the branches can be integrated to the master branch.

GitHub improved maintainability of the source code and reduced risk and liability. By providing suchthings it reduced the cost of processes in general.GitHub provides Version management by keeping records of changes files and file systems.With GitHub releases, we can also handle Release management.

After Deliverable 3, We have shown the minimal version of the Bene-fit Sports Center Management System application in the demo.It contains Manipulate Employee use case.In second demo,We have added Login, Register, Define Branch,Define Course,List Courses and List Employee use cases. In every demo,We have take a release. In every release we have provided: Applications source code as archives and an release executable with all the dependencies.

Configuration management will be held in GitHub. Our repository holds the source code of the project and documentations. Our development approach is:
- Branch protection is applied. No direct commits to master branch.
- When there is a problem or issue that needs to be changed, one creates an issue that specifies problems clearly.
- Development of a specific feature or an issue will be done by creating a branch that clearly shows what is to be done.

- In development branches, one or more project members can work.
- Multiple branches can be created at the same time.
- If development is done in a branch then pull request should be made.

Current changes:

- When a branch was deleted, the workers and the lessons were not deleted from the database.That's fixed.
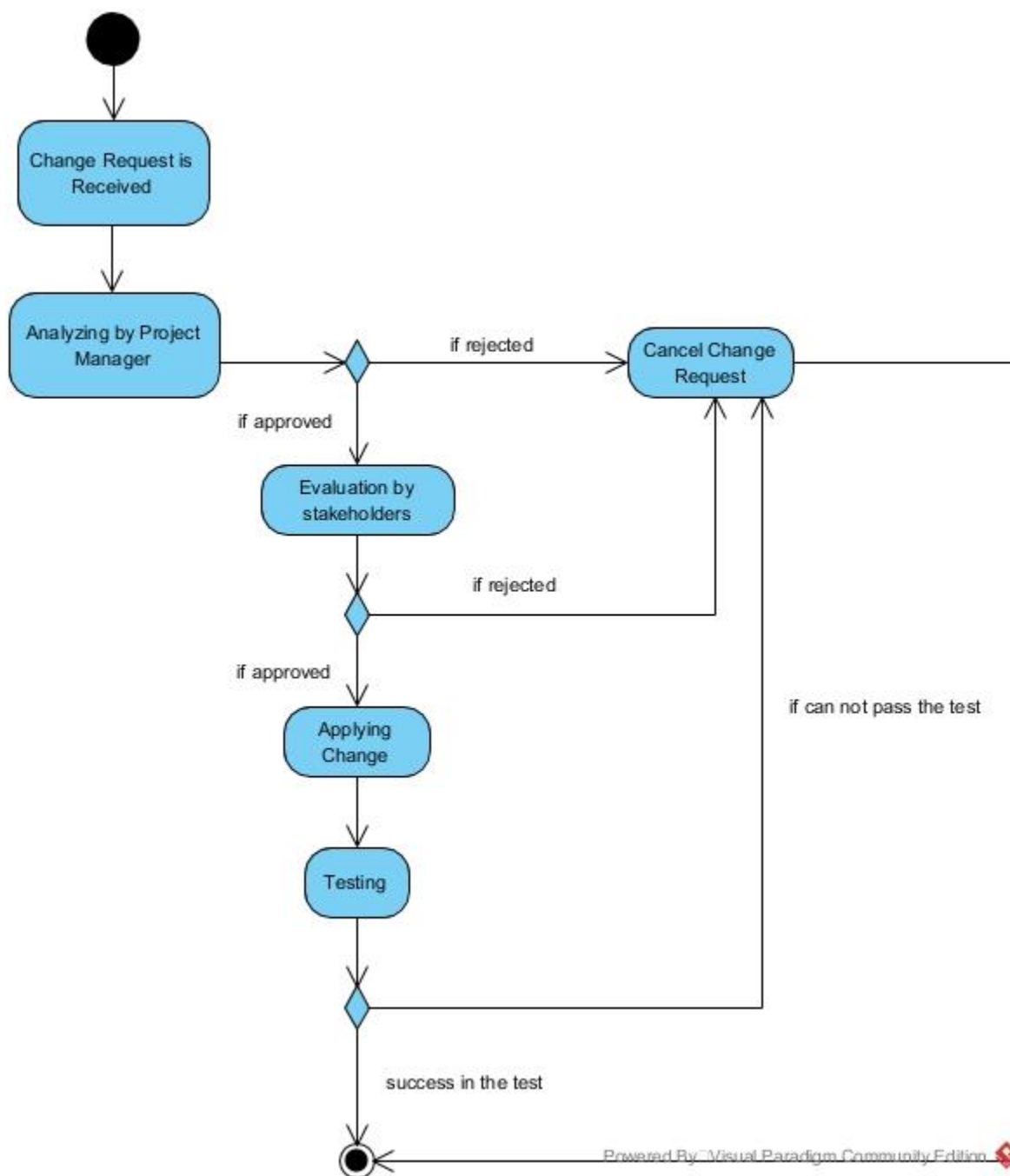
Possible changes in future:

- Each user can chat with each other
- Each user can choose the theme of the program according to his / her wish

We followed a standard cycle of change in the changes we made in this process:

Change evaluation