

## Test Plan Identifier

ID: [HH1 – Team Aguacate] Rev.1.0

Type: Unit Test

Plan Performer: Nelian Colon

## References

- Project Proposal Document
- System Design Document

## Introduction

This test plan document will outline the procedure to perform unit testing and validation of the functionality of the individual software modules of Team Aguacate's Panda Code Reviews. This document contains information about testing procedure for the Repository Management Modules and Email Exchange System.

## Test Items

- Git Projects
  - Create Project
  - Get Projects
  - Get Project
  - Populate Project (Initialize Repository)
  - Add Project Member
  - Delete Project
- Git Repositories
  - Get Project Archive
  - Get Branches
  - Get Branch
  - Get Commits
  - Get Commit
  - Get Diff
  - List Repository Tree
  - Get Raw Blob

- Git Session
  - Login
- Git Users
  - Create User
  - Get Users
  - Get User
  - Modify User
  - Delete User
- Sendgrid
  - Send Email

## Risks Issues

Gitlab API describes functionalities that are not actually available. Workarounds were needed to be found in order to obtain the needed functionality. Some of the tests performed depend of the velocity of response of the server. If the computer or server is slow, or if the terminal fails to terminate a child process that is spawn for populate project, a timeout on the testing framework can occur. A timeout does not means that the test failed, although the testing framework will mark it as not passed. When used in the integration phase, a timeout will have to be implemented such that the process can terminate.

## Features to be tested

- Git Project
  - Create new Project
    - Create a new git repository
  - Fail to create a project
    - Try to create a project that already exists – throw error (404)
  - Get Projects
    - Get all projects
  - Get Project
    - Get specific project information
  - Get Inexistent Project
    - Get a project that does not exist – Throw error (404)
  - Populate Project
    - Initialize Git Repository
  - Add Project Member
    - Add Member to Project
  - Delete Project

- Delete a Project
  - Delete Inexistent Project
    - Try to delete the same project again (inexistent) – Throw error (404)
- Git Repository
  - Get Project Archive
    - Get archive file containing all the files in the repository
  - Get Branches
    - Get project branches
  - Get Branch
    - Get a specific branch information
  - Get Inexistent Branch
    - Try to get a branch that does not exist – Throw error (404)
  - Get Commits
    - Get project commits
  - Get Commit
    - Get a specific commit
  - Get Diff
    - Get diff between last commit and the one before
  - List Repository Tree
    - List Repository Tree
  - Get Blob
    - Get raw blob of a file
- Git Session
  - Login
    - Login to get private\_token
- Git Users
  - Create User
    - Create a new user
  - Fail to create user
    - Try to create a user that already exists – throw error (404)
  - Get Users
    - Get users
  - Get User
    - Get a specific user information
  - Modify User
    - Modify one or more fields of user information
  - Delete User
    - Delete a user
  - Fail getting deleted user
    - Try to delete a user that does not exist – throw error (404)

- Sendgrid
  - Send Email
    - Send an email from an email to another.

## Features not to be tested

- None.

## Approach

### General Description

The tests will consist of calling the specific functions and compare the responses status codes and/or body with the ones expected. The procedure is included in the test procedure plan.

### Tools

- **Terminal:** Needed to run the test script
- **Node.js:** The tests are written using node
- **Chai:** For the assertions
- **Mocha:** Testing framework
- **Text Editor (Sublime Text):** To write the tests.
- **Browser:** To see the output of some functions.
- **Sendgrid:** To send emails
- **Gitlab server:** To create repositories, accounts, etc.

### Item Pass/Fail Criteria

For the tests to be performed in the following plan, a feature will **pass** the test **only if the test results match the expected behavior**. If the test result differs from the expected result the test will be considered as **failed**.

### Test Deliverables

This test plan will deliver a test procedure plan which will describe the test routine needed to test the individual modules which were described on this document.

### Remaining Test Tasks

For the remaining of the project, the remaining tasks will consist of system integration and integration testing of all modules.