

Acceptance Test Plan

For

Quest Till Done

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1. Introduction

1.1 Background

This document provides the process to complete the acceptance test for the Quest Till Done (QTD). QTD is a tool designed to help student developers and small team developers juggle multiple projects by maintaining a deeper development log. The process is more thoroughly described in the Software Requirements Specification (SRS), which details specific requirements and functionality of the software.

1.2 References

Software Requirements Specification for Quest Till Done (Current version 1.1)

1.3 Definitions

Adventurer: Synonymous with user.

Adventurer Level: A count of all levels the user has achieved since the creation of their account.

Campaign: Synonymous with Project.

Experience: A measure of user progress, relevant to Adventurer/Recent Level as well as Skill Points. Higher levels require more experience to level up.

Encounter: Synonymous with Time-block.

GitHub: Web based hosting service that uses Git revision control.

Group: A collection of users and their shared projects.

Level: A measure of the user's effort invested in projects in QTD.

Link: A record that represents a specific website, like a bookmark for browser.

Record: A fundamental data for annotation of tasks. This could be a note, link, commit, or image to provide additional log information.

Project: A project is a group of tasks that are strongly connected to each other by dependencies. The top-most task in the dependency hierarchy defines the project name and details.

Recent Level: A count of all levels achieved by the user in a rolling 30 day period.

SCM: Source control management system, a system that is responsible for management of changes or revisions for computer programs. This term is interchangeable with VCS.

Skill-points: A representation of a user's time investment in a given task type, such as a programming language, on a scale of 0-20, measured by reading tags on given tasks.

Tag: A label for classifying tasks and record.

Task: A task is some discrete, actionable item, the building block of the projects.

Timer: A timer functionality that allows the user to work on tasks for the duration of a time-block.

Time-block: A user defined duration of work for grouping user progress on tasks during the given time period.

QTD Site Administrator: One user account with maximum permissions, able to perform maintenance on member accounts as well as the QTD server and database

QTD Group Administrator: A specific user who manage groups of QTD Members

QTD Member: Registered users of QTD, with no special permissions.

QTD Group Member: A user registered as a part of a given group.

Quest: Synonymous with Task.

Unit Tests: A method by which individual units of source code are tested to determine if they are working properly.

User: The generic term for a registered user of QTD. This includes QTD Members, QTD Administrators, QTD Group Members, and QTD Group Administrators. Will be used wherever the difference between these groups and their permissions are not relevant.

VCS: Synonymous with SCM.

Workflow: representing all processes of a work, including all setups, intermediate development, formal and informal works related to given task.

1.4 Abbreviations

QTD Quest Till Done

SCM Source Control Management

VCS Version Control System

2. Test Approach

2.1 Overview

This section describes the objectives and structure, while outlining constraints for the QTD software.

2.2 Test Objectives

The main objective of the Acceptance Test Plan for QTD is to verify that the software and GUI meets requirements and functionality as specified in the SRS. The Acceptance

Test Plan's main objective is to provide the criteria to determine if the project has been successfully brought up to the standards specified by the SRS.

2.3 Test Structure

Each test case will be constructed in seven sections, which includes: ID number, name, SRS reference location, precondition(s), action descriptions, and postcondition(s). Upon a successful test, the tester will be able to verify expected behavior, given said conditions and actions.

3. Test Assumptions and Exclusions

3.1 Overview

This section goes more in depth about which functions and features of QTD will be covered by the Acceptance Test Plan, and which functions and features will not be covered. It is presumed that these tests are to occur as a formal way to confirm the program has been completed to specification, having already been verified as completely as possible through Unit tests, Integration tests, and System tests of the program.

3.2 Assumptions

The Acceptance Test Plan will cover:

- External Interface Requirements of the software, as listed in the SRS
- Functional Requirements of the software, also listed in the SRS

3.3 Exclusions

The Acceptance Test Plan will not cover:

- Non-Functional Requirements of the software, outlined in the SRS
- Structural integrity of the source code

4. Entry and Exit Criteria

4.1 Overview

This section lists the criteria which must be satisfied in order for the Acceptance Test Plan to begin, as well as the criteria which must be satisfied in order for the Acceptance Test Plan to be considered finished.

4.2 Entry Criteria

The Acceptance Test may commence after the following conditions have been met:

- All other unit tests, system tests, and integration tests are complete.
- A proper environment that meets Software Requirements outlined in the SRS is available.
- A copy of the latest version of the SRS has been received and reviewed.

- The latest version of QTD has been compiled and installed.
- Verification from each group member that the program is up to standards set in the SRS to their best knowledge.

4.3 Exit Criteria

The Acceptance Test Plan is considered successful if after all Priority 1 requirements are tested and verified to be working as intended.

The Acceptance Test Plan is considered a failure if any Priority 1 requirements are tested and verified to not be working as specified.

5. Testing Participants

5.1 Overview

This section describes the roles and responsibilities of all the group members involved in the Acceptance Test Plan as well as the steps taken when a problem surfaces during testing

5.2 Roles and Responsibilities

For the Acceptance Test Plan the roles and responsibilities are as follows:

Test Team Leader: Kevin Huang

Tester 1: Mun Khong Chin

Tester 2: Mark Scheid

5.3 Training Requirements

All parties involved with the Acceptance Test Plan of the QTD should be familiar with the QTD interfaces, system documentation, as well as the Software Requirements Specifications.

5.4 Problem Reporting

Any problem identified by the tester must be documented in the issue tracking system and reported to the Test Team Leader. The problem will be assigned to a tester for review before the next team meeting.

5.5 Progress Reporting

All progress should be made during thrice weekly meetings and accompanying email updates. Meeting roadmap and milestones will be recorded on the Git repository.

6. Test Cases

6.1 GitHub Integration

6.1.1 Add GitHub Account

ID	TC1
Name	Add GitHub Account
Reference	3.2.1.1 (3.2.1.1.1 - 3.2.1.1.3)
Description	Authenticate and save GitHub Account information through API
Precondition(s)	<ol style="list-style-type: none"> 1. Tester account exists in QTD 2. Tester account session is valid 3. Tester is on the GitHub Integration page
Action(s)	Tester will accept and authorize QTD access to GitHub
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. QTD GUI will show the tester his/her timeline page defined in SRS 2. Commits, Issues and comments are synchronized from the selected project from GitHub by creating a new project <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. Tester account does not exist, redirect for registration 2. If GitHub username or password incorrect, or project does not exist, they prompt user to reenter

6.1.2 Remove GitHub Account

ID	TC2
Name	Remove GitHub Account
Reference	3.2.1.1.2
Description	Remove authentication token for the GitHub API
Precondition(s)	<ol style="list-style-type: none"> 1. Tester account exists in QTD 2. Tester has passed TC1 test
Action(s)	Tester select desired GitHub account to remove from the GitHub settings page
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. Selected GitHub account no longer shows in the user settings page <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. GitHub credentials remain on the page

	2. Error message will be shown for the user
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6.2 User Accounts

6.2.1 User Registration

ID	TC3
Name	User Registration
Reference	3.2.2.2, 3.2.2.4
Description	New user can register to use the service
Precondition(s)	Tester loads the correct web site
Action(s)	Tester is prompted to register, and inputs username and password as they desire, then click register to finish user registration
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. Tester logged in automatically and redirect to the GitHub integration page 2. New account created is granted QTD member privilege <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. Tester username already exists, restart this process 2. Password does not meet requirements, restart this process

6.2.2 User Login

ID	TC4
Name	User Login
Reference	3.2.2.1.1
Description	Registered users can login directly.
Precondition(s)	<ol style="list-style-type: none"> 1. User Account exists. 2. User reached correct login page. 3. User has correct username and password.
Action(s)	Tester enters account username and password, and then hits enter.
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. Tester is logged into the system, user redirected to the home

	<p>page</p> <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. If user doesn't exist, redirect to registration page. 2. User won't login page without correct login URL page reference. 3. If password/username wrong, let tester retry for maximum of 5 times before 15 minute lock out.
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6.2.3 User Logout

ID	TC5
Name	User Logout
Reference	3.2.2.1.2
Description	User can log out once they have logged in.
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5. 2. Session is still valid.
Action(s)	Tester hits the logout button to logout.
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. Tester logged out, redirect to the login page. <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. Tester remains logged in.

6.2.4 QTD User Privileges

ID	TC6
Name	QTD Member Privileges
Reference	3.2.2.3.1, 3.2.2.3.2
Description	User has access to item associated with their account.
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5. 2. Session is still valid. 3. Tester's account has access to the item to be accessed.
Action(s)	Tester accesses a project by specifying project URL by hand.

Postcondition(s)	Upon successful execution: <ol style="list-style-type: none"> 1. Tester is allowed to access the item. Upon failed execution: <ol style="list-style-type: none"> 1. Tester is denied access to the item, given a permission denied error message.
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6.2.5 QTD Group Privileges

ID	TC7
Name	QTD Group Privileges
Reference	3.2.2.3.5
Description	QTD Group admin access privileges.
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5. 2. Session is still valid. 3. A group exists. 4. Tester's account is an administrator for the group.
Action(s)	Group admin modifies group information described in SRS 3.2.4.1
Postcondition(s)	Upon successful execution: <ol style="list-style-type: none"> 1. QTD Group admin could modify group membership. 2. QTD Group admin could modify member's access rights. Upon failed execution: <ol style="list-style-type: none"> 1. Tester is denied access to the group information.

6.2.6 User Modification

ID	TC8
Name	User Modification
Reference	3.2.2.5
Description	User can modify their account information.
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5. 2. Session is still valid.
Action(s)	Tester modifies settings in user settings page, clicks save.
Postcondition(s)	Upon successful execution:

	1. Test could edit password and email field.
Action(s)	Tester saves the modified information.
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. New user information is saved. <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. If invalid email address or password, user will be prompted with the error message. 2. The new information would not be saved.

6.2.7 User Deletion

ID	TC9
Name	User Deletion
Reference	3.2.2.6
Description	User can delete their account.
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5. 2. Session is still valid.
Action(s)	Tester uses the delete user option in profile page.
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. Test is prompted with confirmation box.
Action(s)	Tester confirms the action.
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. All user data is purged from the system. 2. User is logged out from the system. <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. If tester doesn't complete the confirmation, the account would not be removed.

6.2.8 User Security

ID	TC10
Name	User Security

Reference	3.2.2.10
Description	User security setting.
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5. 2. Session is still valid.
Action(s)	Tester accesses the user profile page to modify their password.
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. Tester's password is updated. 2. A password strength meter is shown upon password entry to show the complexity of the inputted password. 3. Password is masked from display. <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. Password that are less than 8 characters would not be accepted, tester would be prompted to enter password again. 2. Tester's account would be locked out for 15 minutes if there are more than 5 failed attempts of password entry. 3. An email would be sent out for more than 2 failed attempts to alert the user with the choice of resetting password.

6.2.9 User Settings

ID	TC11
Name	User Settings
Reference	3.2.2.11
Description	User profile information.
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5. 2. Session is still valid.
Action(s)	Tester modifies the settings in their user settings page.
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. Tester could change the timer settings. <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. Time zone information unchanged. 2. Timer settings unchanged.

6.3 Project Management

6.3.1 Add Project

ID	TC12
Name	Add Project
Reference	3.2.3.1
Description	User can add a new project.
Precondition(s)	<ol style="list-style-type: none">1. Tester has passed TC5.2. Session is still valid.
Action(s)	Tester go to main display page, clicks the add project button.
Postcondition(s)	Upon successful execution: <ol style="list-style-type: none">1. Project added, shown in tester project list. Upon failed execution: <ol style="list-style-type: none">1. If tester's session not valid, redirect to login page.2. If tester is not at the correct page, then add project will not be available.

6.3.2 Modify Project

ID	TC13
Name	Modify existing project
Reference	3.2.3.2
Description	User can modify an existing project's attributes.
Precondition(s)	<ol style="list-style-type: none">1. Tester has passed TC5.2. Session is still valid.3. A project already exists.4. Tester has ownership to the project.
Action(s)	Tester clicks the edit button on the project page, changes attribute field(s), and then clicks save.
Postcondition(s)	Upon successful execution: <ol style="list-style-type: none">1. Project name and its properties will be updated right after the update. Upon failed execution: <ol style="list-style-type: none">1. Project does not exist, no modification shown. Prompt user failed error.

	2. If failed to modify, prompt user for more information about nature of error.
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6.3.3 Remove Project

ID	TC14
Name	Remove existing project
Reference	3.2.3.3
Description	Remove existing projects from project list.
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5. 2. Session is still valid. 3. Project Exists. 4. Tester has ownership of the project.
Action(s)	Tester checks the project and select deletion option.
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. Selected project is deleted. <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. Project remains in list, prompt for error message.

6.3.4 Import Project

ID	TC15
Name	Import project
Reference	3.2.3.4
Description	Import previously exported projects from QTD.
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5. 2. Session is still valid. 3. Import file is correct.
Action(s)	On the campaigns page, user clicks the import button.
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. Project gets imported and project is in the project list. <p>Upon failed execution:</p>

	1. Import file is corrupted, failed to import, alert user of error.
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6.3.5 Export Project(s)

ID	TC16
Name	Export single project
Reference	3.2.3.5
Description	The user can export project to a few different formats (defined in SRS) for sharing and importing use.
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5 2. Session is still valid. 3. Project to export exists.
Action(s)	From the project page, the tester clicks the export button and selects a file type.
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. Project(s) exported will be saved through the browser interface. <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. Tester's session is invalid, redirect to login page. 2. Tester will be given an export failed message.

6.4 Task Management

6.4.1 Add Task

ID	TC17
Name	Add Task
Reference	3.2.3.6.1
Description	User can add a new task to the project.
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5. 2. Session is still valid. 3. Tester has access to the project.
Action(s)	Tester will go to the project page, click add task button.

Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. New task is added. <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. Tester will be prompted to enter any missing but required attributes.
Action(s)	Tester fills in the task details.
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. Tester could fill in the following attributes: <ol style="list-style-type: none"> a. Name b. Description c. Tags d. Importance label e. Deadline f. Task Dependents g. Prerequisites h. Estimation i. Ownership <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. If not all required fields are filled, prompt tester to complete the input.

6.4.2 Modify Task

ID	TC18
Name	Modify existing task
Reference	3.2.3.6.2
Description	User can modify existing task for its attributes.
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5 2. Session is still valid. 3. A task already exists. 4. Tester has access to the project that the task belongs to.
Action(s)	Tester modifies the information on the task.
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. Task's attributes will be updated right after the update. <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. If input for updated information is invalid, highlight the invalid

	field and prompt for reentry.
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6.4.3 Delete Task

ID	TC19
Name	Remove existing task
Reference	3.2.3.6.3
Description	Remove existing projects from project list.
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5. 2. Session is still valid. 3. A task already exists. 4. Tester has access to the project that the task belongs to.
Action(s)	Tester deletes a task in the project.
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. Selected task is deleted. <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. Task no longer exists, show error message for the tester.

6.4.4 Task Overview

ID	TC20
Name	Task overview
Reference	3.2.3.6.4
Description	Viewing the tasks information via overview.
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5. 2. Session is still valid. 3. A task already exists. 4. Tester has access to the project that the task(s) belongs to.
Action(s)	Tester accesses the project page the tasks belong to.
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. Tester can see the task timeline which display all tasks and their associated records. <p>SSUpon failed execution</p>

	1. One or both of the previous elements are missing.
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6.5 Group Mechanics

6.5.1 Create Group

ID	TC21
Name	QTD Group creation
Reference	3.2.4.1.1, 3.2.4.1.2, 3.2.2.9.2.1
Description	User can create a QTD Group
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5 2. Session is still valid.
Action(s)	Tester clicks create group button
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. If group name is valid, group is created. <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. If group name is empty, prompt user for the name again.

6.5.2 Delete Group

ID	TC22
Name	QTD Group deletion
Reference	3.2.4.1.4, 3.2.4.1.5
Description	User can delete a QTD Group.
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5. 2. Session is still valid. 3. Tester is the QTD Group Administrator for the group.
Action(s)	Tester clicks delete group button.
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. Prompt user for confirmation. <p>Upon failed execution:</p>

	1. If user is not the group administrator, deny access to delete option.
Action(s)	Tester confirms deletion.
Postcondition(s)	Upon successful execution: 1. Group is deleted from the system. 2. All QTD Member within the group is removed from the group. Upon failed execution: 1. If tester doesn't confirm the deletion, the group is not deleted.

6.5.3 Group Information

ID	TC23
Name	Group Information
Reference	3.2.4.2
Description	User can view group information.
Precondition(s)	1. Tester has passed TC5. 2. Session is still valid. 3. Tester is the QTD Member or Group Administrator for the group.
Action(s)	Tester goes to the group page.
Postcondition(s)	Upon successful execution: 1. User can see the following information: a. Group timeline aggregating membership events and activity in all group projects b. Roles of each member c. Count of tasks with different statuses, deadlines and importance Upon failed execution: 1. If user is not in the group, access will be denied.

6.5.4 QTD Member Invitation

ID	TC24
Name	QTD Member Invitation
Reference	3.2.4.3.1, 3.2.2.9.2.2
Description	QTD Member joins groups.

Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5. 2. Session is still valid. 3. Tester is not currently a member of the group. 4. QTD Group Administrator sent out an invite to the tester.
Action(s)	Tester accepts invite from the group.
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. User is added to the QTD Member list of the group. <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. If refused, the invitation would be removed.

6.5.5 QTD Member Leaving Group

ID	TC25
Name	QTD Member Leaving Group
Reference	3.2.4.3.2
Description	QTD Member leaves joined groups.
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5. 2. Session is still valid. 3. Tester is currently a member of the group.
Action(s)	Tester clicks the leave group option in group page.
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. User is removed from the member list of the group. <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. User remains on member list.

6.5.6 QTD Member Privilege

ID	TC26
Name	QTD Member Privilege
Reference	3.2.4.3.3
Description	QTD Member privileges for projects associated with the group.

Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5. 2. Session is still valid. 3. Tester is currently a member of the group.
Action(s)	Tester accesses the items in a project associated with the group.
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. User is allowed to view or modify items based on permission set by QTD Group Administrator. <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. If user has no access to the item, access is denied.

6.5.7 QTD Group Administrator Invitation

ID	TC27
Name	QTD Group Administrator Invitation
Reference	3.2.4.4.1
Description	QTD Group Administrator could send invite to other user.
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5. 2. Session is still valid. 3. Tester is currently a QTD Group Administrator of the group. 4. Tester is at the group page.
Action(s)	Tester searches for user to send invitation for joining the group.
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. System sends out group invitation through notification to the targeted user. <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. If user doesn't exist, show error message to the tester.

6.5.8 QTD Group Administrator Removing Member

ID	TC28
Name	QTD Group Administrator member removal
Reference	3.2.4.4.2

Description	QTD Group Administrator can remove QTD Member from the group
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5 2. Session is still valid 3. Tester is currently a QTD Group Administrator of the group 4. Tester is at the group page 5. There is more than one member in the current group
Action(s)	Tester clicks the remove option for a QTD Member
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. Prompt for confirmation for removing member <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. If member doesn't exist, show error message to the tester
Action(s)	Tester confirms the action
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. Upon confirmation, the QTD Member is removed from the group 2. The removed member can no longer access the projects or group information for the group <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. If member doesn't exist, show error message to the tester 2. If tester doesn't confirm the deletion, the member remains in the group

6.5.9 QTD Group Administrator Assignment

ID	TC29
Name	QTD Group Administrator Assignment
Reference	3.2.4.1.3, 3.2.4.4.3
Description	QTD Group Administrator add a member as Group Administrator
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5 2. Session is still valid 3. Tester is currently a QTD Group Administrator of the group 4. Tester is at the group page 5. There is more than one member in the current group 6. The member to be assigned is not current a Group Administrator
Action(s)	Tester clicks the assign administrator option for a QTD Member
Postcondition(s)	Upon successful execution:

	1. System prompts user for confirmation for adding new admin
Action(s)	Tester confirms the action
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. The assigned member is added as a QTD Group Administrator for the group 2. There is an additional QTD Group Administrator <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. If no confirmation is received, the member remains as a QTD Member

6.5.10 QTD Administrator Privileges Revoke

ID	TC30
Name	QTD Group Administrator Privileges Revoke
Reference	3.2.4.4.4
Description	QTD Group Administrator remove a member as Group Administrator
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5 2. Session is still valid 2. Tester is currently a QTD Group Administrator of the group 3. Tester is at the group page 4. The member to be assigned is current a Group Administrator
Action(s)	Tester clicks the edit administrator option for a QTD Member
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. System prompts user confirmation
Action(s)	Tester confirms the action
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. The assigned member is removed as a QTD Group Administrator for the group 2. The assigned member is reassigned as a regular QTD Member for the group <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. If tester doesn't confirm the action, the targeted member remains as a QTD Group Administrator

6.5.11 QTD Administrator Leaving Group

ID	TC31
Name	QTD Group Administrator Leaving Group
Reference	3.2.4.4.5, 3.2.4.4.6
Description	QTD Group Administrator leaves the group
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5 2. Session is still valid 2. Tester is currently a QTD Group Administrator of the group 3. Tester is at the group page 4. There is only one QTD Group Administrator
Action(s)	Tester clicks the leave group option
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. If there is more than one member in the group, the QTD Member joined earliest will be promoted to Group Administrator 2. If there is no other member in the group, the system will delete the group <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. Tester remains part of the group

6.5.12 QTD Group Administrator Project Management

ID	TC32
Name	QTD Group Administrator Creates Project
Reference	3.2.4.4.7
Description	QTD Group Administrator could create group specific project
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5 2. Session is still valid 3. Tester is currently a QTD Group Administrator of the group 4. Tester is at the group page
Action(s)	Tester clicks the create project option
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. New project will be created for the group <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. If project name is invalid, shows error message

6.6 Timer Management

6.6.1 Start Timer

ID	TC33
Name	Start timer
Reference	3.2.5.1
Description	Start the countdown of the timer
Precondition(s)	<ol style="list-style-type: none">1. Tester has passed TC52. Session is still valid3. Timer is not started
Action(s)	User click Start button in the top navigation bar
Postcondition(s)	Upon successful execution: <ol style="list-style-type: none">1. The timer starts counting down, showing the remaining time in the top navigation bar Upon failed execution: <ol style="list-style-type: none">1. Timer is not started, user will be prompted with error message

6.6.2 Pause Timer

ID	TC34
Name	Pause timer
Reference	3.2.2.9.3.2, 3.2.5.2
Description	Pause the countdown timer
Precondition(s)	<ol style="list-style-type: none">1. Tester has passed TC52. Session is still valid3. Timer is started and counting down
Action(s)	User clicked the pause button in the top navigation bar
Postcondition(s)	Upon successful execution: <ol style="list-style-type: none">1. Timer is paused and stop counting down with the remaining time shown in the top navigation bar

	Upon failed execution: 1. Timer continues counting
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6.6.3 Stop Timer

ID	TC35
Name	Stop Timer
Reference	3.2.5.3
Description	Stop and reset the countdown timer
Precondition(s)	1. Tester has passed TC5 2. Session is still valid 3. Timer is started and counting down
Action(s)	User clicked the stop button in the top navigation bar
Postcondition(s)	Upon successful execution: 1. Timer is stopped and the remaining time reset to the default timer value Upon failed execution: 1. Timer continues counting

6.6.4 Toggle Timer Mode

ID	TC36
Name	Toggle timer mode
Reference	3.2.5.4.1
Description	Change timer mode between auto and manual
Precondition(s)	1. Tester has passed TC5 2. Session is still valid
Action(s)	The user click on the toggle button to toggle between auto or manual mode
Postcondition(s)	Upon successful execution: 1. For manual mode a. extend timer and short break button will be enabled b. Timer will no longer auto restart upon times up

	2. For auto mode, timer will auto restart upon finishing countdown Upon failed execution: 1. User's timer mode remains unchanged

6.6.5 Configure Timer

ID	TC37
Name	Configure Default Time Frame
Reference	3.2.5.4, 3.2.2.11.3
Description	Change default time period from 25 minutes to desired time frame
Precondition(s)	1. Tester has passed TC5 2. Session is still valid 3. User is on their profile page
Action(s)	The user click on the dropdown menu of the timer period area, choose desired time period
Postcondition(s)	Upon successful execution: 1. User will see a timer change at the top right corner 2. User can start timer with the new set time frame Upon failed execution: 2. User will not see timer configuration if not on correct page 3. Timer will not change, an error code is displayed.

6.6.6 Break Timer

ID	TC38
Name	Break Timer
Reference	3.2.5.4.3.1
Description	Initiate a short break timer
Precondition(s)	1. Tester has passed TC5 2. Session is still valid 3. Tester's timer is in manual mode
Action(s)	User clicked the break/rest button in the top navigation bar

Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. Timer is restarted with the short break time <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. Timer continues counting
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6.6.7 Extend Timer

ID	TC39
Name	Extend Timer
Reference	3.2.5.4.3.2, 3.2.5.4.4
Description	Extend current timer countdown
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5 2. Session is still valid 3. Timer is in manual mode
Action(s)	User clicked the extend button in the top navigation bar
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. Current remaining time for countdown is extended with the preset value by user <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. Timer continues counting

6.7 Record Management

6.7.1 Add Note

ID	TC40
Name	Add Note
Reference	3.2.6.1.1
Description	User can add a new note to a task
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5 2. Session is still valid 3. Tester has access to the project
Action(s)	Tester clicks add record button for the task, and chooses note option

Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. New note is created with user inputted text as content <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. If the input is empty, show error message and prompt for reentry 2. Alternatively, a valid message may fail to generate, prompting an error
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6.7.2 Add Link

ID	TC41
Name	Add Link
Reference	3.2.6.1.2
Description	User can add a new link to a task
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5 2. Session is still valid 3. Tester has access to the project
Action(s)	Tester clicks add record button for the task, and chooses link option
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. New link is created with the following fields <ol style="list-style-type: none"> a. Short description b. Web URL c. quote <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. If the description or the URL is empty, show error message and prompt for reentry 2. If the URL is not valid, show error message and prompt for reentry

6.7.3 Add Image

ID	TC42
Name	Add Image
Reference	3.2.6.1.3
Description	User can add a new image to a task
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5

	<ol style="list-style-type: none"> 2. Session is still valid 3. Tester has access to the project
Action(s)	Tester clicks add record button for the task, and chooses image option
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. File dialog box opens for the user, and allows user to choose a file to be uploaded to the server
Action(s)	Tester chooses an image file to be uploaded
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. Image file is uploaded to the server, and the new image file is added to the image record for the task <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. If file size is larger than 1MB limit, show error message and prompt for file selection 2. If file format is not jpeg, bitmap or png format, show error message and prompt for file choosing

6.7.4 Modify Record

ID	TC43
Name	Modify existing record
Reference	3.2.3.6.3
Description	User can modify existing record for its attributes
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5 2. Session is still valid 3. A record already exists 4. Tester has access to the project that the task belongs
Action(s)	Tester modifies the information on the record
Postcondition(s)	<p>Input is validated via TC44, 45 and 46 corresponding to the type of record being modified</p> <p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. The following data can be edited and saved <ol style="list-style-type: none"> a. Note, the text content can be changed b. Link, the description and URL can be changed c. Image, the image file could be re-uploaded <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. If input for updated information is invalid, highlight the invalid

	field and prompt for reentry
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6.7.5 Delete Record

ID	TC44
Name	Remove existing record
Reference	3.2.6.2
Description	Remove existing record from a task
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5 2. Session is still valid 3. A record already exists 4. Tester has access to the project that the task belongs
Action(s)	Tester clicks the delete option for the record
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. Selected record is deleted <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. Record no longer exists, show error message for the tester

6.8 Tagging, filtration, searching, timeline view and Notifications

6.8.1 Project Search

ID	TC45
Name	Project Search
Reference	3.2.7.1.1
Description	User can search for projects
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5 2. Session is still valid
Action(s)	Tester searches for a project based on name
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. If project with the name exists, show user a list of results <p>Upon failed execution:</p>

	<ol style="list-style-type: none"> 1. If search input is empty, do not perform a search 2. If search result is empty, display no result message
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6.8.2 Task Search

ID	TC46
Name	Task Search
Reference	3.2.7.1.2
Description	User can search for tasks
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5 2. Session is still valid
Action(s)	Tester searches for a project based on task's name
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. If task(s) with the name exists, show user a list of results <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. If search input is empty, do not perform a search 2. If search result is empty, display no result message

6.8.3 Record Search

ID	TC47
Name	Record Search
Reference	3.2.7.1.3
Description	User can search for records
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5 2. Session is still valid
Action(s)	Tester searches for a record based on record's attributes or record type
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. If record(s) with the name or description exists, show user a list of results <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. If search input is empty, do not perform a search 2. If search result is empty, display no result message

6.8.5 Add Tags

ID	TC48
Name	Add Tags
Reference	3.2.7.2
Description	User can add tags to a task, project or a record
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5 2. Session is still valid 3. Either a task, project or a record exists
Action(s)	Tester uses the add tag option for the item to add a tag
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. If default tagging is used, user could select a range of default tag to be associated with the item 2. User can also create a custom tag with custom text to be associated with the item <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. If no tag is selected, tag is not added 2. If no text is inputted for custom tag, the custom tag would be no created.

6.8.6 Filtration

ID	TC49
Name	Filtration
Reference	3.2.7.3
Description	User can filter the search result
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5 2. Session is still valid 3. TC49, 50, or 51 passed with search result
Action(s)	Tester makes a search, then filters the results
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. The result can be filtered by the importance or priority of the projects 2. The result can be filter by different projects <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. Session is no longer valid, redirect to login page

	2. Search failed, error message is given
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6.9 TimeLine

6.9.1 User Timeline

ID	TC50
Name	User Timeline
Reference	3.2.8.1
Description	User can see a list of recent activity feed based on time
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5 2. Session is still valid
Action(s)	Tester accesses the user timeline page
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. User can see the activity feed of their account separated by different time period <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. Session is no longer valid, redirect to login page

6.9.2 Project Timeline

ID	TC51
Name	Project Timeline
Reference	3.2.8.2
Description	User can access the timeline page listing all content within a project
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5 2. Session is still valid 3. Tester has more than one project
Action(s)	Tester accesses the project timeline page
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. User can see the activity feed of the project, which listed all tasks and records activity for the given project <p>Upon failed execution:</p>

	1. Session is no longer valid, redirect to login page
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6.9.3 Group Timeline

ID	TC52
Name	Group Timeline
Reference	3.2.8.3
Description	User can access the timeline page listing all content within a group
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5 2. Session is still valid 3. Tester is a QTD Member of a group
Action(s)	Tester accesses the group timeline page
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. User can see the activity feed of the selected group separated by different time period 2. The result feed contains all activity from the other member in the group <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. Session is no longer valid, redirect to login page

6.10 Notification

6.10.1 Global Notification

ID	TC53
Name	Global Notification
Reference	3.2.9
Description	QTD Site admin could post a site notification.
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5. 2. Session is still valid. 3. Tester is the QTD Site Administrator.
Action(s)	Tester adds a notification for the system.

Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. A pop-up alert is shown to all of the users. 2. User could confirm or dismiss the alert. <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. Session is no longer valid, redirect to login page. 2. If notification is empty, no global notification will be published.
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6.11 Prioritization

6.11.1 Prioritization Select and Filter

ID	TC54
Name	Prioritization Select and Filter
Reference	3.2.10
Description	User can access a list of most prioritized tasks
Precondition(s)	<ol style="list-style-type: none"> 1. Tester has passed TC5 2. Session is still valid 3. Tester could access at least one existing project with more than one task
Action(s)	Tester accesses the priority page
Postcondition(s)	<p>Upon successful execution:</p> <ol style="list-style-type: none"> 1. User can see a list of tasks prioritized by the following criteria <ol style="list-style-type: none"> a. Due date b. Ownership c. Importance d. Number of unfulfilled prerequisites 2. Detail information is displayed for each result <p>Upon failed execution:</p> <ol style="list-style-type: none"> 1. Session is no longer valid, redirect to login page 2. If no result is found for the page, display an empty list with error message

7. Traceability Matrix

Requirement ID	Test Case ID	Description
3.2.1.1.1	TC1	GitHub API, Input, Output
3.2.1.1.2	TC2	Remove GitHub Link
3.2.2.1.1	TC4	User Login
3.2.2.1.2	TC5	User Logout
3.2.2.2	TC3	User Registration
3.2.2.3.1, 3.2.2.3.2	TC6	QTD User Privileges
3.2.2.3.5	TC7	QTD Group Privileges
3.2.2.5	TC8	User Modification
3.2.2.6	TC9	User Deletion
3.2.2.10	TC10	User security
3.2.2.11	TC11	User's general settings
3.2.3.1	TC12	Add project
3.2.3.2	TC13	Modify existing project
3.2.3.3	TC14	Remove existing project
3.2.3.4	TC15	Import project
3.2.3.5	TC16	Export project
3.2.3.6.1	TC17	Add task
3.2.3.6.2	TC18	Modify existing task
3.2.3.6.3	TC19	Remove existing task
3.2.3.6.4	TC20	Task overview
3.2.4.1.1, 3.2.4.1.2	TC21	Group creation
3.2.4.1.3	TC29	Multiple Group Administrator

3.2.4.1.4	TC22	Group deletion
3.2.4.2	TC23	Group Information display
3.2.4.3.1	TC24	QTD Member accepts invitation
3.2.4.3.2	TC25	QTD Member Leaving Group
3.2.4.3.3	TC26	QTD Member Privilege
3.2.4.4.1	TC27	Member invitation
3.2.4.4.2	TC28	Kicking member
3.2.4.4.3	TC29	QTD Group Administrator assignment
3.2.4.4.4	TC30	Unassign QTD Group Administrator
3.2.4.4.5, 3.2.4.4.6	TC31	QTD Group Administrator leaving group
3.2.4.4.7	TC32	QTD Group Administrator project management
3.2.5.1	TC33	Start timer
3.2.5.2	TC34	Pause timer
3.2.5.3	TC35	Stop timer
3.2.5.4.1	TC36	Toggle timer mode
3.2.5.4.2	TC37	Configure timer
3.2.5.4.3.1	TC38	Break timer
3.2.5.4.3.2, 3.5.4.4	TC39	Extend timer
3.2.6.1.1	TC40	Add note
3.2.6.1.2	TC41	Add link
3.2.6.1.3	TC42	Add image
3.2.6.2	TC43	Modify record

3.2.6.3	TC44	Delete record
3.2.7.1.1	TC45	Project search
3.2.7.1.2	TC46	Task search
3.2.7.1.3	TC47	Record search
3.2.7.2	TC48	Add tags
3.2.7.3	TC49	Filtration
3.2.8.1	TC50	User Timeline
3.2.8.2	TC51	Project Timeline
3.2.8.3	TC52	Group Timeline
3.2.9	TC53	Global Notification
3.2.10	TC54	Prioritization View