**TEST PLAN:**

**Introduction:**

The test plan is designed to describe the scope, approach, resources and schedule of all the testing activities of the Time/Task tracking project.

The plan identifies the items to be tested, the features to be tested, the types of testing to be performed, the personnel responsible for testing, and the resources and schedule required to complete testing.

**Scope:**

The following features must be tested:

SPRINT 1:

| **Feature** | **Description** | **Do implementations pass test?** |
| --- | --- | --- |
| Register account | Students must be able to register an account with uni email.  Teacher must be able to register account with uni email | Yes  Yes |
| Login | Students must be able to login to account  Teachers must be able to login to account | Yes  Yes |
| Reset Password | Student must be able to reset password  Teacher must be able to reset password | Yes  Yes |
| Teams | Teachers must be able to create a team  Teachers must be able to access team  Teachers must be able to view team  Teachers must be able to add students to a team  Teachers must not be able to add students to a team that doesn’t exist | Yes  Yes  Yes  Yes  Yes |

**Quality Objective:**

The test objectives are to verify the login functionality of the Time/Task tracking website with a focus on testing that both types of users can register with their university emails, login to their account and also reset password. In addition, must also test that teachers can perform all required functions for teams (i.e. accessing/viewing/editing teams).

SPRINT 2:

| **Feature** | **Description** | **Do implementations pass test?** |
| --- | --- | --- |
| Creating and editing teams | Teacher must be able to create teams  Teacher must be able to add students to team  Teacher must be able to view student teams  Teacher must be able to edit student teams  Students must be able to view teams  Students must not be able to edit or create teams | Yes  Yes  Yes  Yes  Yes  Yes |
| Task tracking | Students must be able to log their contributions  Students must be able to log their time  Students must not be able to change contributions once added | Yes  Yes  Yes |

**Quality Objective:**

The test objectives are to verify the team creation and editing functionality of the time/task tracking project. Objectives are also to test that time and tasks can be tracked/logged successfully by both the teacher and student users. The teacher user should be able to create, edit and view the teams but student users should only be able to have viewing permission. In addition, should also test that students can log their contributions, and once logged cannot change them.

SPRINT 3:

Test Cases

| User story # | Test Suite | Do implementations pass tests? |
| --- | --- | --- |
| 1 | * Adding contribution should update the database * Student should know if the contribution on added or error occurred | Yes |
| 2 | * Confirming a contribution should update database * Confirming a contribution should disable further confirmation of contribution * Confirmed contributions should be shown when teacher is viewing the team * Confirmed contributions should be shown when other teammates are viewing the team | Yes |
| 3 | * Flagging a student should update database * Flagging a student should disable further flagging of teammate * Flagged students should be shown when teacher is viewing the team * Flagged students should be shown when other teammates are viewing the team | Yes |
| 4 | * When teacher marks a student it should update the database * Student should be able to see their individual marks | Yes |
| 5 | * Piechart should update when contributions update * Piechart should correct show the distributions | Yes |
| 6 | * Deployment is successful * CloudDB is connected successfully in replacement to sql | Yes |

**Quality Objective:**

The test objectives are to verify that contributions and edits made by both the teacher and team are correctly modified in the database. When a student adds a time/task contribution it should be updated accordingly in the database. When a student flags another teammate it should also be updated. In addition, the database should change accordingly when a teacher updates/adds a student’s marks and a student should be able to view (not edit) these.

**Test completeness:**

* Specifies the criteria that denote a successful completion of a test phase
* Run rate is mandatory to be 100% unless a clear reason is given.
* Pass rate is 80%, achieving the pass rate is mandatory

Code Review Checklist:

Add “X” to user story columns to indicate the user story has been code reviewed against the checklist. Once all done, check the last row to indicate code review has been completed for the user story.

| Checklist | User Story 1 | User Story 2 | User Story 3 | User Story 4 | User Story 5 | User Story 6 |
| --- | --- | --- | --- | --- | --- | --- |
| Code is tested against test cases and have passed | ✔️ | ✔️ | ✔️ | ✔️ | ✔️ | ✔️ |
| Code should follow consistent formatting and structure | ✔️ | ✔️ | ✔️ | ✔️ | ✔️ | ✔️ |
| Names of variables and functions should follow naming conventions and are consistent | ✔️ | ✔️ | ✔️ | ✔️ | ✔️ | ✔️ |
| No hardcoded values should be used | ✔️ | ✔️ | ✔️ | ✔️ | ✔️ | ✔️ |
| Code should be well documented and commented | ✔️ | ✔️ | ✔️ | ✔️ | ✔️ | ✔️ |

**TEST COMPLETENESS:**

**ACCEPTANCE TESTING:**

In order to pass the Acceptance test, the time/task tracking software must meet the following client specifications and requirements:

| **Requirement:** | **Does software pass the requirement?** | **Checked by:** |
| --- | --- | --- |
| Login form which can be used by both teacher and student to login using university email | Yes | Team |
| Teacher should be able to create project teams and be able to add students to them | Yes | Isha, Roy |
| Software must keep track of time each student spends on tasks | Yes | Team |
| Students should be able to track time contribution using a start/stop timer | Yes | Tarin, Roy, Jaskaran |
| Students should be able to contribute their time/tasks only once - contributions cannot be updated once added | Yes | Team |
| Students should be able to flag other teammates who are not doing enough work | Yes | Team |
| Student contributions should be represented as graphical data | Yes | Team |
| Software should have a minimalistic interface | Yes | Team |
| Software should be accessible on a mobile device | Yes | Team |

In addition, the software should also comply with the Quality Assurance document standards/expectations outlined, and also align with the project’s definition of done.

**TEST DELIVERABLES:**

These are the documents and artifacts that will be delivered during the different phases of the software development cycle/at the end of each print.

* Relevant code documents
* (Updated) Sprint Plan
* (Updated) Project backlog
* (Updated) Quality Assurance doc - as required
* Sprint Review (Team meeting)
* Retrospective report