

Note that you can refine your testing plan as the project development goes on. Keep the change log as follow:

Change Log

Version	Change Date	By	Description
version number	Date of Change	Name of person who made changes	Description of the changes made
1	Feb 27, 2024	Team8	Create testing plan for sprint 1

Introduction

Scope

Features:

- Login/Signup functionalities
- Course Look Up: testing selected Term + Department => Courses
- Get Courses/Sections that a User registered
- Roadmap for degree

Non-functional requirements:

Roles and Responsibilities

Name	Net ID	GitHub username	Role
Quang Anh Le	7900715	AnhLe-Axel	Developer
Jack Nguyen	7920902	ntt2402vn	Developer
Arshdeep	7917921	arsh331	Developer
Ngoc Kien Mai	7876083	maingockien01	Developer

Test Methodology

Test Completeness

Here you define the criteria that will deem your testing complete. For instance, a few criteria to check Test Completeness would be

- 100% back-end code coverage (mandatory for this project), all the back-end source code should be covered by test cases.

Unit tests

- Look up Courses Test:
 - Test Degree.Controller: Function findAll() should return a list of Degree that are available.
 - Test Term.Controller : Function find(tid, department) should return a list of Courses with matched Deperment in that specific Term. Function findAll() should return a list of all Terms.
 - > Acceptance criteria: Result returned should match with provided array JSON . (based on Database implementation)
- Get Courses registered of a User Test:
 - Test User.Course.Controller: function findActive(uid,tid) should return a JSON array of Courses registered with mached User ID and Term ID.
 - > Acceptance criteria: Result returned should match with provided array JSON of Courses. (based on Database implementation)
- Roadmap for degree
 - DegreeController: Get degree by ID with options to include recommended courses
 - Degree Service: Get degrees with criteria and options for including recommended courses relations
- Authentication Module:
 - Test auth.controller: Function signup() should create a new user.
- Calendar for the user:
 - Test user.course.controller: Function should return all the courses for a user in a term.
 - Acceptance test: Result should match the test courses.

Integration tests

Empty for this sprint 2. To be included in sprint 2.

Resource & Environment Needs

Testing Tools

- **Jest** for unit tests in backend & frontend
- **Supertest** for integration tests in backend
- **Cypress** (to be set up soon) for client testing in frontend
- **GitHub Actions** for running tests in CI

- **GitHub Issues** to keep track of bugs, tasks, ...
- **Postman** for testing backend API responses
- **TablePlus/SQL workbench** for troubleshooting database
- **ES-Lint** for linting the code

Test Environment

- Windows 10 and above with installed WSL (Ubuntu)
- Docker (integrated with WSL for Windows)
- Docker image:
 - o Node 18
 - o Global yarn packages required: typescript, @nestjs/cli, concurrently

Terms/Acronyms

Make a mention of any terms or acronyms used in the project

TERM/ACRONYM	DEFINITION
API	Application Program Interface
AUT	Application Under Test