

Introduction

This document explains the requirements, database design, and API specifications for the project. The user interface for the project can be accessed [here](#).

Objective

The goal of this assignment is to evaluate your backend development skills, including:

- Database schema design,
- REST API development, and
- Business logic handling.

You are required to build a backend service that powers the Test Cases panel of our platform.

Requirements

- Each test case starts with default values (Tester Update: Pending [dash], Support Update: Pending Validation).
- Tester Update can be changed from Pending → Complete (dash → tick).
- Support Update is a dropdown with options: Passed, Failed Complete, Retest, NA(Not Applicable), Pending Validation.
- Each selection has business rules (color, bold text, tooltip message).
- Changes must be saved immediately in the database.

Database Design

You need to design a schema that supports multiple testers and test cases, with a many-to-many relationship. Recommended structure:

Table	Fields
Testers	tester_id (PK), name, email
TestCases	test_id (PK), description, tester_update (enum), support_update (enum)
TesterAssignments	assignment_id (PK), tester_id (FK), test_id (FK)

API Endpoints

- GET /test-cases → Returns all test cases with tester details, tester update, and support update.
- PATCH /test-cases/:id → Updates either tester_update or support_update for a test case, applies rules, and saves to DB.