



Ministry of Communication and Information Technology
(MCIT)

Digital Egypt Pioneers Initiative (DEPI)

Track: Software Development / Software Testing

Round: 3rd round

Group code: YAT546A-CAI3-SWD6-S6

Under the supervision of Instructor: Abdelrahman Osama

Graduation Project title: Trello API + Orange HRM

Trello API:

<https://developer.atlassian.com/cloud/trello/rest/api-group-actions>

Orange HRM:

<https://opensource-demo.orangehrmlive.com/web/index.php/auth/login>

Project Scope (Features we will test)

The testing scope is divided into two main sections covering both the Orange HRM web application and the Trello API.

Section 1: Orange HRM (Web Application Testing)

This section covers the functional and UI testing of the Orange HRM system.

Pages & Modules to be Covered:

- Login & Logout Functionality: Validating user authentication and session management.
- PIM (Personal Information Management) Module: Testing employee creation, editing, and deletion.
- Leave Management Module: Validating the process of requesting, approving, and rejecting leave applications.
- My Info Module: Ensuring employees can view and edit their personal information correctly.

Types of Testing:

- Manual Testing: Comprehensive manual test cases will be executed for all specified modules.
- Automated UI Testing: Selected critical test cases (e.g., Login, Add Employee) will be automated using a suitable framework.

Section 2: Trello API (API Testing)

This section covers the testing of the Trello API endpoints.

Endpoints to be Covered:

- Boards: POST /boards (Create Board), GET /boards/{id} (Get Board Info), DELETE /boards/{id} (Delete Board).
- Lists: POST /lists (Create List), PUT /lists/{id} (Update List).
- Cards: POST /cards (Create Card), GET /cards/{id} (Get Card Info), PUT /cards/{id} (Update Card), DELETE /cards/{id} (Delete Card).

Types of Testing

- **Functional API Testing:** Verifying that API requests return the correct data and status codes.
- **Negative Testing:** Validating how the API handles incorrect or invalid requests.
- **Schema Validation:** Ensuring the structure of the API response is as expected.