

## **Demo 2**

### **Integration Testing**

#### **Group E Members:**

Hong Ly,

RatanaSambath Nhek,

Pichsophea Long,

Ali Kozan,

Ahmet Adali

## **Integration Tests:**

The intent of integration testing is to test the interactions and integration between different components or modules of an application to ensure that they work correctly together. In the case of the tool renting application, the integration tests are designed to test the integration and interactions between the different modules of the application, such as the user module, tool module, rental module, and registration module.

The integration tests are designed to test various scenarios such as successful and unsuccessful tool renting, successful and unsuccessful tool returning, successful and unsuccessful tool registration, and successful and unsuccessful user registration. These tests are intended to ensure that the application functions correctly and all modules work together as expected. The integration tests also cover scenarios such as tool deletion, which tests whether a tool can be successfully deleted from the system, and tool availability, which tests whether a tool is available for renting or not. These tests are important to ensure that the application is reliable and functional for end-users. However, since we still working on the functionality, here is the list that our website that have tested on.

Test Case ID	Test Case Name	Description	Input	Expected Output	Coverage
IT001	Successful tool renting	Test that a tool can be rented successfully by a user	User ID, Tool ID, Rental start date, Rental end date	Success message	User, Tool, Rental
IT002	Unsuccessful tool renting	Test that a tool cannot be rented if it is already rented by someone else	User ID, Tool ID, Rental start date, Rental end date	Error message	User, Tool, Rental
IT004	Unsuccessful tool return	Test that a tool cannot be returned if it has not been rented by the user	User ID, Tool ID, Return date	Error message	User, Tool, Rental
IT005	Successful tool registration	Test that a new tool can be registered successfully	Tool name, Tool description, Tool category	Success message	Tool

IT006	Unsuccessful tool registration	Test that a tool cannot be registered without a name	Tool description, Tool category	Error message	Tool
IT007	Successful user registration	Test that a new user can be registered successfully	User name, User email, User phone number	Success message	User
IT008	Unsuccessful tool updating	Test that a tool cannot be updated if it is currently rented	Tool ID, Tool name, Tool description, Tool category	Error message	Tool, Rental

IT009	Successful tool availability check	Test that a user can check if a tool is available for rent on a specific date range	Tool ID, Rental start date, Rental end date	Available or Unavailable message	Tool, Rental
IT010	Unsuccessful tool availability check	Test that a user cannot check availability of an invalid tool	Invalid tool ID, Rental start date, Rental end date	Error message	Tool, Rental
IT011	Successful rental history retrieval	Test that a user can view their rental history	User ID	List of past rentals	Rental
IT012	Unsuccessful rental history retrieval	Test that a user cannot view rental history if they have no past rentals	User ID with no past rentals	Error message	Rental
IT012	Successful tool update	Test that a tool owner can update tool information	Tool ID, Updated information	Success message	Tool
IT014	Successful user login	Test that a registered user can log in	User email, Password	Success message	User