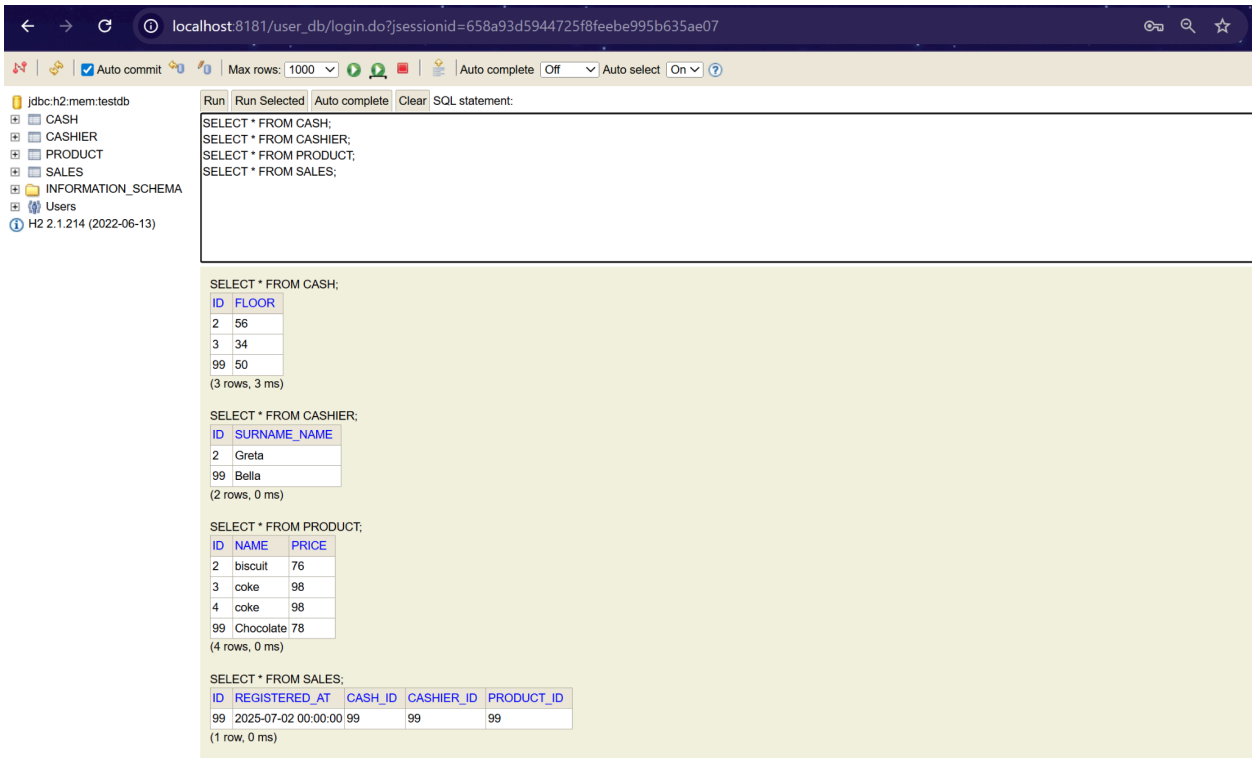

REST_API_TEST

07.07.2025

Hack Rush

19th May Batch
QE Full Stack domain

IBM, BCIT

Overview

This project includes API test cases for a backend system managing a department store, built with REST APIs. The test cases cover CRUD operations for departments, products, customers, and inventory through RESTful endpoints. They follow the clean layered architecture: Controller, Service, and Repository. They are designed to ensure smooth integration with frontend applications or other systems.

Deliverables

1. **API Test Cases:** Cover CRUD operations for Departments, Products, Customers, and Inventory. Ensure workflows and data persistence in the backend.
2. **Automated Test Scripts:** JUnit/TestNG scripts validate all REST API endpoints. Check HTTP responses and database state consistency.
3. **Test Documentation:** Templates document test steps, inputs, expected and actual results. Provide clear tracking of test execution outcomes.
4. **Demo Execution:** Showcase automated API testing with H2 database updates. Verify all core scenarios in a working demonstration.

Project Highlights

Frameworks components:

- **Rest Assured**:
  - To create the request and response specifications.
  - To send requests and receive responses.
- **Hamcrest**:
  - The assertion library to add verifications to RESTAssured tests.
- **JUnit:**
  - To create and execute automated test cases.
- **Pact**:
  - To create the Consumer-side tests.
  - To create Provider-side verifications.
  - To create the contract between Consumer and Provider.
  - To create the mock server to run tests against.

Agile Approach:

- Regular tracking and sprint planning done via **JIRA**.
- Code collaboration managed via **GitHub**.
- Daily standups to update teammates.

Test Coverage:

- Login
- SQLExecution
- SchemaValidation
- DepartmentCRUD
- ProductCRUD
- CustomerCRUD
- InventoryCRUD
- APIResponse
- ErrorHandling
- DataPersistence
- DatabaseCleanup

Use-case Diagram