TEST PLAN DESIGN

Introductio:

This Test Plan will conduct an analysis of the web application and the API as part of a test designed to assess QA knowledge. The focus will be on functional, API, and integration testing. Test cases will be designed for both frontend and backend components. Execution will be performed manually using Swagger and Postman. Results, as well as any defects found, will be documented.

The sections of the Test Plan are:

1. **Scope**
2. **Objectives**
3. **Resources**
4. **Risks**
5. **Deliverables**

Scope:

Backend:

1. **User authentication:**
   a) Verification of valid and invalid credentials

2. **Product Management:**
   a) CRUD Operations (Create, Read, Update And delete) on Products
   b) Search Tests by identifier (ID)

3. **Order Processing:**
   a) Creation and validation of orders.
   b) Cancellation and updating of order status

Frontend:

1. **User Authentication and Dashboard:**
   a) Verification of login and logout functions
   b) Checking the adaptability and accessibility of the interface

2. **Product Listing and Order Management:**
   a) Validation of product list display and filtering
   b) Testing of order creation, modification, and cancellation
   c) Checking the responsiveness of the interface

OBJECTIVES:

1. **Software Quality:** Ensure that all key functionalities, both backend and frontend, work correctly and are functional with invalid inputs.

2. **Usability:** Ensure that the user interface is accessible, intuitive, and functions properly.

3. **Reliability:** Ensure that the system handles errors correctly and provides clear feedback to the user.

RESOURCES:

1. **Tools:**
   a) **Postman:** For testing backend APIs.

2. **Environments:**
   a) **Local Development Environments:** Testing backend and frontend on a local server
   b) **Device:** Laptop acer Aspire 5
   c) **Browser:** Google Chrome

3. **Test Data:**

   a) Users with various credentials, both valid and invalid
   b) Products with example characteristics
   c) Test orders with various states and configurations

RISKS:

1. **Technical Risks:**
   a) Potential version incompatibilities between testing tools and the development environment
   b) Errors in test environment configuration Affecting execution

2. **Mitigation strategies:**
   a) Configuring controlled and documented environments before starting tests
   b) Using an appropriate test environment to avoid interference with production

DELIVERABLES:

1. **Test Plan Document:** Will include the testing strategy, scope, objectives, risks, and deliverables.
2. **Test Cases:** A detailed set of cases covering all functionalities described in the scope.
3. **Test Execution Report:** Detailed record of results, including passed, failed tests, and defects found.