### **1. Introduction**

This test plan outlines the strategy for testing the **Decathlon Shopping App** focused on the **trekking instruments module**. The goal is to ensure the functionality, usability, and reliability of features like product search, filter, cart, and checkout—via both manual and automation testing. The project uses **Selenium with Page Object Model (POM)** and **Cucumber for BDD**.

### **2. Scope**

#### **✅ In Scope:**

* Manual and automated testing of the trekking instruments category.
* UI testing (manual).
* Functional testing of:  
  + Product search and filters
  + Product details
  + Add to cart/remove from cart
  + Checkout process
* Automated regression testing using Selenium (POM + Cucumber).

#### **❌ Out of Scope:**

* Testing of other product categories.
* Performance or load testing.
* Mobile/responsive UI testing.

### **3. Test Objectives**

* Validate core functionalities specific to trekking products.
* Verify end-to-end user flows including search, add to cart, and checkout.
* Identify UI/UX defects through manual testing.
* Automate repeatable test cases using Selenium + POM + Cucumber.
* Deliver a stable and defect-free shopping experience.

### **4. Test Strategy**

#### **🧪 Manual Testing:**

* Type: Functional, UI, Exploratory, Usability
* Techniques: Ad hoc, boundary value, negative testing
* Tools: Excel/Test case management tool (manual logging)

#### **🤖 Automation Testing:**

* Tools: Selenium WebDriver, Maven, Java
* Framework: Page Object Model (POM)
* BDD Tool: Cucumber
* IDE: IntelliJ/Eclipse
* Test Runner: TestNG
* Repository: GitHub

### **5. Resources**

| **Role** | **Name** | **Responsibility** |
| --- | --- | --- |
| Test Engineer | **Balaji Chavan** | Writing, executing manual and automated test cases, defect reporting |

**Tools & Environments**:

* **OS**: Windows 10
* **Browsers**: Chrome, Firefox
* **Automation Tools**: Selenium, TestNG, Maven, Cucumber
* **IDE**: IntelliJ/Eclipse
* **Version Control**: Git
* **Test Data**: Created manually for each scenario

### **6. Schedule**

| **Date** | **Activity** |
| --- | --- |
| 6 May 2025 | Environment setup, manual test case design |
| 7 May 2025 | Manual execution + Automation framework setup |
| 8 May 2025 | Automation script development (POM + Cucumber) |
| 9 May 2025 | Automation execution & defect logging |
| 10 May 2025 | Final validation & Test report submission |

### **7. Entry & Exit Criteria**

#### **✅ Entry Criteria:**

* Functional specifications are finalized.
* Trekking module build is deployed to test environment.
* Test environment is ready.

#### **✅ Exit Criteria:**

* All planned test cases executed.
* All critical defects resolved or accepted.
* Test summary report created and shared.

### **8. Deliverables**

* Test Plan Document
* Manual Test Cases (Excel/Test Management Tool)
* Automated Test Scripts (POM + Cucumber)
* Feature Files for Cucumber
* Test Execution Report
* Defect Report
* Final Test Summary Report

### **9. Risks & Mitigation**

| **Risk** | **Impact** | **Mitigation** |
| --- | --- | --- |
| Tight deadline (5 days) | High | Prioritize critical test cases, automate only stable flows |
| Environmental setup issues | Medium | Set up on Day 1 and verify early |
| Ambiguous requirements | High | Clarify and freeze scope before testing starts |
| Test data inconsistency | Medium | Pre-create and reuse reliable test data |