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# Test Environment Setup – ShopperStack Application

## Objective

To configure and prepare the required hardware, software, tools, and test data needed to execute automation testing for the ShopperStack web application efficiently and consistently.

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## 1. Hardware Requirements

- System: Laptop / Desktop
  - Processor: Intel i5 or higher
  - RAM: Minimum 8 GB
  - Storage: Minimum 20 GB free space
  - Internet Connection: Stable broadband connection
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## 2. Software Requirements

- **Operating System:**
    - Windows 10 / 11 (64-bit)
  - **Java Development Kit (JDK):**
    - JDK 8 or above
    - Environment variable `JAVA_HOME` configured
  - **IDE:**
    - IntelliJ IDEA / Eclipse
  - **Build Tool:**
    - Maven
  - **Version Control Tool:**
    - Git
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## 3. Automation Tools & Libraries

- **Selenium WebDriver**
- **TestNG** (for test execution and reporting)
- **WebDriverManager** (for browser driver management)
- **Apache POI** (for data-driven testing – if applicable)
- **Extent Reports**

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## 4. Browser Configuration

Supported browsers:

- Google Chrome (Latest version)
- Mozilla Firefox (Latest version)

Browser Drivers:

- ChromeDriver
- GeckoDriver  
(Managed using WebDriverManager)

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## 5. Application Under Test (AUT)

- **Application Name:** ShopperStack
- **Environment Type:** Test / QA
- **Application URL:**  
<https://www.shopperstack.com>
- **Access Type:** Public web application

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## 6. Test Data Setup

- Valid user credentials for:
  - Registered User
  - Admin User (if applicable)
- Test data for:
  - Product search
  - Cart operations
  - Checkout process
- Test data maintained using:
  - Excel / JSON / Properties file

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## 7. Framework Setup Steps

1. Install Java and configure environment variables
2. Install IDE (IntelliJ / Eclipse)

3. Create Maven project
  4. Add required dependencies in `pom.xml`
  5. Configure TestNG
  6. Setup browser drivers
  7. Create base test class
  8. Configure test execution using `testng.xml`
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## 8. Environment Validation

- Verify application URL is accessible
  - Verify login functionality works
  - Verify browser launches successfully
  - Verify framework execution without errors
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## 9. Assumptions

- Test environment is stable and available
  - Required test accounts are active
  - Browsers are updated to the latest version
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