**BStackDemo Testing Project Documentation**

**Project Overview**

**Project Name:** BStackDemo System Testing  
**Application URL:** https://bstackdemo.com/  
**Project Duration:** 4 Days  
**Project Type:** Automated Testing Framework Implementation

The BStackDemo System Testing project is a comprehensive 4-day automation testing initiative designed to ensure the reliability, functionality, and user experience of the BStackDemo website. BStackDemo is a sample e-commerce web application developed by BrowserStack to facilitate hands-on practice for UI and automation testing. It features a product catalog, shopping cart, and user authentication, making it ideal for testing frameworks like Selenium, Playwright, and Cypress. Developers and QA engineers use it to simulate real-world user interactions and validate test scripts across various devices and browsers.

## Technology Stack

### **Development & Testing Tools**

* **Programming Language:** Java
* **Build Tool:** Maven
* **Testing Framework:** TestNG
* **Automation tool:**Selenium Webdriver
* **BDD Framework:** Cucumber
* **Version Control:** Git
* **Reporting:** ExtentReports
* **CI/CD:** Jenkins Pipeline

### **Development Environment**

* **IDE:** Eclipse
* **Java Version:** 11 or higher
* **Maven Version:** 3.6+
* **Browser Support:** Chrome, Firefox, Edge

### **Project Scope**

### The project encompasses testing of three core modules of the BstackDemo system:

### Multiple Users login

### Traversing through home page

### User shopping from logging in to checkout

### **Module 1: Multiple Users Login**

#### **Test Scenarios:**

* **Valid Credentials Test:**
  + Verify successful login with correct username/password.
  + Verify redirection to dashboard after successful login.
* **Null/Empty Credentials Test**:
  + Verify validation for empty username field.
  + Verify validation for empty password field.

#### **BDD Scenarios:**

Scenario Outline: Login with valid credentials

Given the user is on the login page

When the user logs in with username "<username>" and password "<password>"

Then the username "<username>" should be visible

Examples:

| username | password |

| demouser | testingisfun99 |

| fav\_user | testingisfun99 |

| image\_not\_loading\_user | testingisfun99 |

| existing\_orders\_user | testingisfun99 |

### **Module 2: Traversing Home Page**

#### **Test Scenarios:**

* **Traversing through all web pages given in Home Page:**
  + Traversing through offers page, allowing location to turn on and checking offers available.
  + Traversing through orders page and check whether previous orders are there or not.
  + Traversing through favourite’s page and check whether favourite marked products are there or not.
* **Filtering products by brands:**
  + Filtering through all brands which are Apple, Samsung, Google and OnePlus.
* **Sorting products by prices:**
  + Sorting products by Lowest to Highest prices.
  + Sorting products by Highest to Lowest prices.

### **Module 3: User Shopping from Logging in to Checkout**

#### **Test Scenarios:**

* **Searching for Samsung Products and selection:**
  + Choosing Samsung in filtering to bring out Samsung products.
  + Marking particular Samsung Product for favourite.
  + Going to favourite’s page and add the marked Product to cart.
* **Searching for Apple Products and selection:**
  + Choosing Apple in filtering to bring out Apple products.
  + Marking particular Apple Product for favourite.
  + Going to favourite’s page and add the marked Product to cart.
* **Checkout and Confirming products:**
  + Increasing quantity of products
  + Filling Checkout form details
  + Confirming products by downloading confirmation file in the form of pdf.
* **Checking orders:**
  + Going to order’s page and confirming the last shopped products.
  + Logging out from website.

## Project Timeline (4 Days)

| **Day** | **Modules covered** | **Deliverable** |
| --- | --- | --- |
| Day 1 | Multiple Users Login | Confirmed different scenarios |
| Day 2 | Homepage traversal | Checked all elements of homepage and traversed through all webpages associated with homepage |
| Day 3 | Executing shopping scenario | Login to selection and adding to cart to checkout and logging out |
| Day 4 | Documentation | Documenting the project and preparing presentation which includes screenshots of testing outputs |

## Technical Implementation

### Project Structure

### bstackdemo

### │

### ├── src

### │ ├── main

### │ │ └── java

### │ │ ├── pages

### │ │ └── utils

### │ │

### │ └── test

### │ ├── java

### │ │ ├── listeners

### │ │ ├── runners

### │ │ ├── stepdefinitions

### │ │ └── tests

### │ │

### │ └── resources

### │ └── features

### │

### ├── screenshots

### ├── target

### ├── test-output

### │

### ├── Jenkinsfile

### ├── pom.xml

### └── testng.xml

### Maven Dependencies (pom.xml)

* Selenium WebDriver
* Cucumber Java
* Cucumber Testng
* gherkin
* ExtentReports
* Cucumber-extent
* WebDriverManager

### Jenkins Pipeline Configuration

* **Source Code Management:** Git repository integration
* **Build Triggers:** Scheduled builds and webhook triggers
* **Build Steps:** Maven clean test
* **Post-build Actions:** ExtentReports publication, Email notifications

### **Git Workflow**

* **Main Branch:** Production-ready code
* **Develop Branch:** Integration branch
* **Feature Branches:** Individual module development
* **Pull Request Process:** Code review before merge

## Quality Assurance Standards

### **Reporting & Metrics**

* **ExtentReports:** Detailed HTML reports with screenshots
* **Jenkins Integration:** Build status and test results
* **Daily Standup Reports:** Progress tracking
* **Coverage Metrics:** Module-wise test coverage