# Java AT E-Commerce Project

**Title:** Automated Testing of the Best Buy E-Commerce Website

**Test objective**: The goal of this project is to build a system that can automatically test the functionality of the Best Buy e-commerce website (https://www.bestbuy.com/). The system will use Selenium, a tool for automating web browsers, to navigate through the website and perform various actions, such as adding items to the shopping cart and checking out. The system will then verify that the website is functioning correctly by checking the resulting web pages for expected content and behavior.

**Precondition**: The user has logged in to the application and has access to the booking feature.

Test cases should  contain all **Positive** and **Negative** scenarios.

**Demo URL**: You can use the following URL for testing

: "https://www.bestbuy.com/"

**Task Description:**
Set up a **Selenium project** in your preferred programming language (Java, Python, etc.).

1. Write code to open a web browser and navigate to the Best Buy e-commerce website (https://www.bestbuy.com/).
2. Write a code to validate if the given URL Link is broken.
3. Write a code to do Sign-Up and Login functionality.
4. Write a code for navigation of all Menu and validation of title in each page.
5. Write a code to validate the bottom links on the homepage.
6. Write code to search for and add an item to the shopping cart.
7. Write a code to select and add an item from (Menu à Shop by Department).
8. Write a code to select and add an item from (Menu à Brands à Select Any Brand).
9. Write code to navigate to the checkout page and fill out the form with dummy payment information.
10. Write code to verify that the order was placed successfully by checking the resulting web page for the order confirmation message.
11. Write code to close the web browser when testing is complete.
12. Write code to run the test suite automatically on a regular basis (e.g., once per day).
13. Additional Tasks (optional):
14. Use a testing framework (e.g., JUnit, TestNG) to organize and run your tests.

15. Use a continuous integration tool (e.g., Jenkins) to automatically run your tests when new code is pushed to your repository.
16. Write tests to cover as much of the functionality of the Best Buy e-commerce website as possible, including searching for items, filtering search results, and creating an account.
17. Use a headless browser (e.g., PhantomJS, Headless Chrome) to run tests without opening a graphical web browser.
18. Write code to take screenshots of the Best Buy e-commerce website during testing to help debug any issues that arise.

**Notes:**

● This project should be able to handle any errors that may occur during the booking process (such as an invalid product/input or payment information), and should be able to successfully buy multiple products and payment when all of the required information is provided correctly.

● The project should cover Selenium workflows like Action Classes, Window Handles , Frames,Alerts and Dynamic Xpath handling.

● The Project should handle Cross Browser Testing(Same Scripts works for all browsers like ( Chrome and Firefox).

**Expected Result**:
The system should be able to successfully complete an end-to-end test of the Best Buy e-commerce website, including adding an item to the shopping cart and checking out. The system should also be able to verify that the order was placed successfully by checking the resulting web page for the order confirmation message.

**Any Basic hints to solve?**
● Selenium
● A web browser
● A programming language of your choice (Java, Python, etc.)
● A testing framework (e.g., JUnit, TestNG)
● A continuous integration tool (e.g., Jenkins, TravisCI)
● A headless browser (e.g., PhantomJS, Headless Chrome)