Sourcecode:

buy_physics_book.feature

```
Feature: Search and Add Product to Cart

Scenario: Add product to cart
    Given Open the browser
    When Navigate to application "https://amazon.in"
    And Type 'physics books' in the search box and then select 3rd option from
the drop-down
    And Select rating 4star and above from left sidebar
    And Click on the first search result
    And Click 'Add to Cart' button
    Then Verify the text - 'Added to Cart' is displayed
    And Click on 'Proceed to Buy' button
    Then Verify user is on the Sign in page
    And Close the browser
```

BuyPhysicsBookSteps.java

```java
package in.amazon.testscripts;

import java.util.ArrayList;

import org.openqa.selenium.edge.EdgeDriver;
import org.testng.Assert;

import in.amazon.testpages.AddToCart;
import in.amazon.testpages.AddedToCart;
import in.amazon.testpages.LandingPage;
import in.amazon.testpages.ProceedToBuy;
import in.amazon.testpages.SelectionPage;
import in.amazon.testpages.SignIn;

import io.cucumber.java.en.Given;
import io.cucumber.java.en.Then;
import io.cucumber.java.en.When;

public class BuyPhysicsBookSteps extends Tools {

    private LandingPage landingPage;
    private SelectionPage selectionPage;
    private AddToCart addToCart;
    private AddedToCart addedToCart;
    private ProceedToBuy proceedToBuy;
    private SignIn signIn;


      @Given("Open the browser")
      public void open_the_browser() {
            driver = new EdgeDriver();
            driver.manage().window().maximize();
```

```java
    }

    @When("Navigate to application {string}")
    public void navigate_to_application(String string) {
        driver.get("https://amazon.in");
    }

    @When("Type {string} in the search box and then select 3rd option from
the drop-down")
    public void
type_in_the_search_box_and_then_select_3rd_option_from_the_drop_down(String
string) throws InterruptedException {
        landingPage = new LandingPage(driver);
          landingPage.searchItem("physics books");


    }

    @When("Select rating 4star and above from left sidebar")
    public void select_rating_4star_and_above_from_left_sidebar() {
        landingPage.selectRatingFilter();
    }

    @When("Click on the first search result")
    public void click_on_the_first_search_result() throws
InterruptedException {
        selectionPage = new SelectionPage(driver);
        selectionPage.clickFirstMobile();
    }

    @When("Click {string} button")
    public void click_button(String string) {
        ArrayList<String> tabs = new ArrayList<>(driver.getWindowHandles());
        driver.switchTo().window(tabs.get(1));
        addToCart = new AddToCart(driver);
        addToCart.clickBuyNowBtn();
    }

    @Then("Verify the text - {string} is displayed")
    public void verify_the_text_is_displayed(String string) {
        addedToCart = new AddedToCart(driver);
        String expectedText = "Added to Cart";
        String actualText = addedToCart.getAddedToCartText();
        Assert.assertEquals(actualText, expectedText);
    }

    @Then("Click on {string} button")
    public void click_on_button(String string) {
        proceedToBuy = new ProceedToBuy(driver);
        proceedToBuy.clickProceedtoBuyBtn();
    }

    @Then("Verify user is on the Sign in page")
    public void verify_user_is_on_the_sign_in_page() {
        signIn = new SignIn(driver);
```

```java
        String expectedText = "Sign in";
        String actualText = signIn.getSignInText();
        Assert.assertEquals(actualText, expectedText);
    }

    @Then("Close the browser")
    public void close_the_browser() {
        driver.quit();
    }
}
```

TestRunner.java

```java
package in.amazon.testscripts;

import io.cucumber.testng.AbstractTestNGCucumberTests;

import io.cucumber.testng.CucumberOptions;


@CucumberOptions(

        features = "Features//buy_physics_book.feature",

        glue = "in.amazon.testscripts"

        )

public class TestRunner extends AbstractTestNGCucumberTests{

}
```

Tools.java

```java
package in.amazon.testscripts;

import org.openqa.selenium.WebDriver;

public class Tools {

    protected static WebDriver driver;

}
```

LandingPage.java

```java
package in.amazon.testpages;

import java.time.Duration;

import org.openqa.selenium.Keys;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.WebElement;

import org.openqa.selenium.interactions.Actions;

import org.openqa.selenium.support.FindBy;

import org.openqa.selenium.support.PageFactory;

import org.openqa.selenium.support.ui.ExpectedConditions;

import org.openqa.selenium.support.ui.WebDriverWait;


public class LandingPage  {
    private WebDriver driver;

        private Actions actions;

        private WebDriverWait wait;


        @FindBy(id = "twotabsearchtextbox")

        private WebElement searchBox;


    public LandingPage(WebDriver driver) {

        this.driver = driver;

        PageFactory.initElements(driver, this);

                actions = new Actions(driver);

                wait = new WebDriverWait(driver, Duration.ofSeconds(60));

    }

    @FindBy(xpath = "//section[@aria-label='4 Stars & Up']")

    private WebElement ratingFilterSectionElement;


        @FindBy(xpath = "//div[contains(@class,'autocomplete-results-container')]")

        private WebElement autoCompleteBox;
```

```java
public void searchItem(String searchQuery) throws InterruptedException {

        searchBox.sendKeys(searchQuery);

        wait.until(ExpectedConditions.visibilityOfAllElements(autoCompleteBox));


        actions.sendKeys(Keys.ARROW_DOWN).sendKeys(Keys.ARROW_DOWN).sendKeys(Keys.ARROW_DOWN).sendKeys(Keys.ENTER).build().perform();
    }
  public void selectRatingFilter() {

    wait.until(ExpectedConditions.elementToBeClickable(ratingFilterSectionElement));

    ratingFilterSectionElement.click();

  }
}
```

SelectionPage.java

```java
package in.amazon.testpages;


import java.time.Duration;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.WebElement;

import org.openqa.selenium.support.FindBy;

import org.openqa.selenium.support.PageFactory;

import org.openqa.selenium.support.ui.ExpectedConditions;

import org.openqa.selenium.support.ui.WebDriverWait;


public class SelectionPage {

    private WebDriver driver;

    private WebDriverWait wait;


    @FindBy(xpath = "(//span[contains(@class,'a-size-medium a-color-base a-text-normal')])[1]")

    private WebElement firstbook;
```

```java
        public SelectionPage(WebDriver driver) {

                PageFactory.initElements(driver, this);

        }

        public void clickFirstMobile() throws InterruptedException {

                Thread.sleep(1000);

                firstbook.click();

        }

}
```

AddToCart.java

```java
package in.amazon.testpages;


import org.openqa.selenium.WebDriver;

import org.openqa.selenium.WebElement;

import org.openqa.selenium.support.FindBy;

import org.openqa.selenium.support.PageFactory;


public class AddToCart {

        @FindBy(id = "add-to-cart-button")

        private WebElement addtocartBtn;


        public AddToCart(WebDriver driver) {

                PageFactory.initElements(driver, this);

        }

        public void clickBuyNowBtn() {

                addtocartBtn.click();

        }

}
```

AddedToCart.java

```java
package in.amazon.testpages;


import org.openqa.selenium.WebDriver;

import org.openqa.selenium.WebElement;

import org.openqa.selenium.support.FindBy;

import org.openqa.selenium.support.PageFactory;


public class AddedToCart {


	@FindBy(xpath = "//span[contains(@class,'a-size-medium-plus a-color-base sw-atc-text a-text-bold')]")

	private WebElement addedToCartText;

	public AddedToCart(WebDriver driver) {

		PageFactory.initElements(driver, this);

	}

	public String getAddedToCartText() {

		String text = addedToCartText.getText();

		return text;

	}

}
```

ProceedToBuy.java

```java
package in.amazon.testpages;


import org.openqa.selenium.WebDriver;

import org.openqa.selenium.WebElement;

import org.openqa.selenium.support.FindBy;

import org.openqa.selenium.support.PageFactory;


public class ProceedToBuy {


        @FindBy(name = "proceedToRetailCheckout")

        private WebElement ProceedBtn;

        public ProceedToBuy(WebDriver driver) {

                PageFactory.initElements(driver, this);

        }

        public void clickProceedtoBuyBtn() {

                ProceedBtn.click();

        }

}
```

SignIn.java

```java
package in.amazon.testpages;


import org.openqa.selenium.WebDriver;

import org.openqa.selenium.WebElement;

import org.openqa.selenium.support.FindBy;

import org.openqa.selenium.support.PageFactory;


public class SignIn {


        @FindBy(xpath = "//h1[contains(@class,'small')]")

        private WebElement signInText;
```

```java
        public SignIn(WebDriver driver) {

                PageFactory.initElements(driver, this);

        }
        public String getSignInText() {

                String text = signInText.getText();

                return text;

        }
}
```


Driver.java

```java
package in.amazon.testscripts;


import in.amazon.testpages.AddToCart;

import in.amazon.testpages.AddedToCart;

import in.amazon.testpages.LandingPage;

import in.amazon.testpages.ProceedToBuy;

import in.amazon.testpages.SelectionPage;

import in.amazon.testpages.SignIn;


public class Driver extends Tools {


        protected static LandingPage landingPage;

        protected static SelectionPage selectionPage;

        protected static AddToCart addToCart;

        protected static AddedToCart addedToCart;

        protected static ProceedToBuy proceedToBuy;

        protected static SignIn signIn;
```

```java
    public static void init() {
landingPage = new LandingPage(driver);

selectionPage = new SelectionPage(driver);

addToCart = new AddToCart(driver);

addedToCart = new AddedToCart(driver);

proceedToBuy = new ProceedToBuy(driver);

signIn = new SignIn(driver);

    }


}
```

BeforeAfter.java

```java
package in.amazon.testscripts;


import io.cucumber.java.After;

import io.cucumber.java.Before;

import io.cucumber.java.Scenario;


public class BeforeAfter extends Tools {
    @Before
    public void setUp(Scenario scenario) {
        Driver.init();
    }
    @After
    public void tearDown() {
        driver.quit();
    }
}
```