

PROJECT REPORT ON KIA CARS HOME PAGE

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Summery

In this Project whole kia Cars web Page is tested by testers as a team. In this project various test cases are created related to each and every functionality. The features tested by testers are cross browsing, Parallel testing, home, Models, FAQ's, Highlights, search box, search button, social media links (Instagram, Facebook, Twitter, LinkedIn), Contact form, location, and footer section which includes all the links related to contact and other things.

Tester check all the test cases using testNG framework and monitor the functionality of the web page also issue some bug after finding any defect and report to the developer using Jira and also manage them manually.

Introduction:

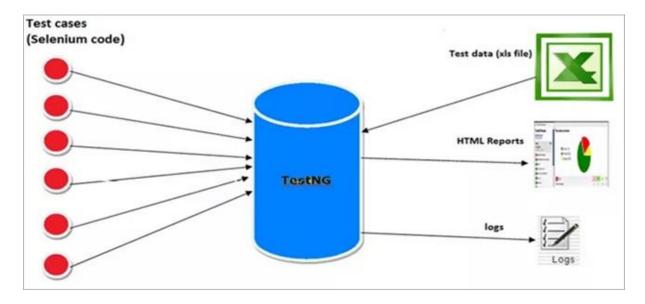
2.1 Introduction to TestNG:

It is a Test Automation Framework for Java, inspired by JUnit and NUnit with new introductory functionalities that make it more powerful and easier to use. NG means Next Generation. It is an open-source and free tool.

It is designed to cover all the categories of testing like Unit Testing, Functional Testing, End to End Testing, Regression Testing, Integration Testing, etc. TestNG supports both Android as well as IOS Applications.

Features of TestNG:

- Annotations: Multiple Annotations that provide powerful mechanisms to aid your automation scripts.
- Support for Data-Driven Testing using @ Data Provider Annotations.
- Supports a no. of Parameters.
- Generation of Automatic Reports which Selenium can't do by itself.
- It can run only the failed test case while there isn't a need to run the whole test suite in case of test failures.
- Supports a variety of tools and plug-Ins like Maven, Jenkins, etc.
- Flexibility in test configurations.
- It provides a powerful execution model.
- Dependent methods are useful for Application server testing.
- Default JDK functions for runtime and logging (no more dependencies).



2.2 Introduction to JIRA:

Jira is developed by the Australian company Atlassian and is used for software testing. It is a bug tracking tool based on agile methodology and by using it we can report issues to our software or mobile apps. Jira provides us with a way to change our workflow according to our needs and helps us to effectively collaborate with our team. It makes it easy for us to release our software's different versions. In manual testing, Jira is the most used testing tool and it is also an open-source tool.

Why we should use JIRA:

There are many reasons for using Jira. Some of them are:

- It helps us to track, organize, and prioritize our work, which makes things faster for us. It has different newly added features and it provides improvement from time to time. In Jira, workflow is well planned. The project is divided into small parts, known as issues, which are of different types like documentation tasks, new features tasks, improvement tasks, or bugs. So it becomes easy for software developers to prioritize which issues to solve first based on date or other parameters. We can say it helps us to manage projects and maintain documentation easily.
- Jira is helpful for organizing and creating our own documentation. It provides us a way
 to group different tasks using component functionalities which makes it easy for us to
 create structured documentation.
- Jira can be used as a source of information for our newly released version of software, since it provides a place for software developers to plan their new features and fixes for new releases. Also, since the status of newly added features can be checked in Jira, it provides help to the QA team to write technical documentation.
- We can specify the due date for the new releases of our documentation. We can also
 configure the Jira tool to show notification of the deadline so that it can be done at the
 right time.
- Jira provides a much easier way to view issues through the confluence pages so that we can see which things are needed for updates, then we can create issues for them.
- We can measure the time spent on documents in Jira with the help of tempo timesheets which come bundled with the Jira tool.

2.3 Introduction to Zephyr:

Zephyr is a testing solution that improves the quality of your software by managing and monitoring end-to-end testing. Its key capabilities include:

- Test-case creation
- Organization of tests by product releases and components
- Assignment of tests to the Quality Assurance team
- Test case automation
- Monitoring of test execution and results.

How Zephyr works:

Zephyr for Jira enables you to manage your tests directly in Jira. You can add **Test** items as tickets to your Jira projects, link them to other Jira issues, plan your testing efforts by using test cycles, and track your testing efforts via metrics and reports.

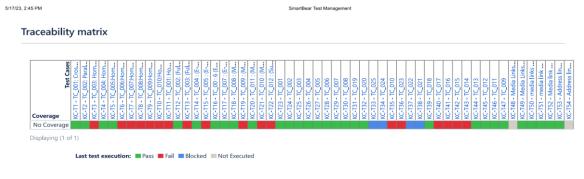
Zephyr simplifies the testing process as test cases are organized under Jira tickets. A user typically adds a test case by setting the ticket type to 'Test'. Once the ticket test is added with the appropriate title, description, and other relevant information, the user has the opportunity to update Actions, Details, and Execution.

Users can execute an added test case or add to the test cycle directly from the test case. In 'Details,' users have the ability to edit/update the test steps. 'Execute' will display all the past executions related to the test case.

Zephyr as a Test management tool:

Additionally, Zephyr helps QA in planning and executing upcoming releases and keeps testing records organized and easily accessible. Completed test executions are searchable and users can search the releases at any given point in time.

Zephyr Reporting helps to create a test summary, test metrics, and traceability matrix for each release, ensuring test coverage and tracking the test results.



Automation Codes

3.1 Automation codes of cross browser, parallel testing, home, models, FAQ's, Highlights, search box, search button, sliders.

• Cross Browser:

```
package kiapkg;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.edge.EdgeDriver;
import org.openqa.selenium.firefox.FirefoxDriver;
import org.testng.annotations.AfterMethod;
import org.testng.annotations.BeforeMethod;
import org.testng.annotations.Parameters;
import org.testng.annotations.Test;
public class cross browser
WebDriver driver;
@Parameters("browser")
@BeforeMethod
public void before(String browser)
if (browser.contains("Chrome"))
driver = new ChromeDriver();
else if(browser.contains("Edge"))
driver=new EdgeDriver();
else if(browser.contains("Firefox"))
driver=new FirefoxDriver();
@Test
public void google()
driver.manage().window().maximize();
driver.get("https://bhaskarab7.github.io/KiaCars/Kia Home.html");
@AfterMethod
public void after() throws InterruptedException
Thread.sleep(3000);
driver.close();
```

• Cross browser XML:

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE suite SYSTEM "https://testng.org/testng-1.0.dtd">
<suite name="Suite">
 <test thread-count="5" name="Test">
        <parameter name="browser" value="Chrome"></parameter>
  <classes>
   <class name="kiapkg.cross browser"/>
  </classes>
 </test> <!-- Test -->
 <test thread-count="5" name="Test1">
        <parameter name="browser" value="Edge"></parameter>
  <classes>
   <class name="kiapkg.cross_browser"/>
  </classes>
 </test> <!-- Test -->
 <test thread-count="5" name="Test2">
        <parameter name="browser" value="Firefox"></parameter>
  <classes>
   <class name="kiapkg.cross browser"/>
  </classes>
 </test> <!-- Test -->
</suite> <!-- Suite -->
```

Parallel Testing :

```
package kiapkg;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;
import org.testng.annotations.AfterMethod;
import org.testng.annotations.BeforeMethod;
import org.testng.annotations.Test;

public class Parallel
{
   WebDriver driver;
     @BeforeMethod
   public void before()
{
     driver = new ChromeDriver();
     driver.manage().window().maximize();
}
     @Test
   public void link()
{
     driver.get("https://bhaskarab7.github.io/KiaCars/Kia_Home.html");
```

```
@Test
public void link2()
{
driver.get("https://bhaskarab7.github.io/KiaCars/Kia_Home.html");
}

@AfterMethod
public void after() throws InterruptedException
{
Thread.sleep(3000);
driver.close();
}
}
```

Parallel testing XML :

Home, Models, FAQ's, Highlight, Search Box, Search button and Slides :

```
package kiapkg;
import java.util.List;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
import org.testng.annotations.AfterMethod;
import org.testng.annotations.BeforeMethod;
import org.testng.annotations.Ignore;
import org.testng.annotations.Test;

public class Home_page
```

```
WebDriver driver;
@BeforeMethod
public void before()
driver = new ChromeDriver();
driver.manage().window().maximize();
driver.get("https://bhaskarab7.github.io/KiaCars/Kia_Home.html");
@Test(priority=1)
public void home()
String home title=driver.getTitle();
driver.findElement(By.xpath("//*[text()='Home']")).click();
if(driver.getTitle().equals(home_title))
System.out.println("Not Navigated to home Page");
else
System.out.println("Navigated to home Page");
@Test(priority=2)
public void dropdown()
driver.findElement(By.linkText("Models")).click();
List<WebElement> drpdwn = driver.findElements(By.xpath("//*[@class='dropdown-item']"));
System.out.println("Dropdown contains");
for(WebElement i : drpdwn)
System.out.println(i.getText());
```

```
}
@Test(priority=3)
public void dropdownselect() throws InterruptedException
String ev title = "Kia EV6 Electric Car Price 2023 | Colors, Images and Features | Book Now";
driver.findElement(By.linkText("Models")).click();
List<WebElement> drp =driver.findElements(By.xpath("//*[@class='dropdown-item']"));
for(WebElement j : drp)
if((j.getText()).contains("Kia EV6"))
j.click();
Thread.sleep(2000);
driver.navigate().back();
if(driver.getTitle().contains(ev_title))
System.out.println("Navigated to Kia EV6");
else
System.out.println("Not Navigated to Kia EV6");
@Test(priority=4)
public void FAQ()
String home title=driver.getTitle();
driver.findElement(By.linkText("FAQs")).click();
```

```
if(driver.getTitle().equals(home_title))
System.out.println("Not Navigated to FAQs Page");
}
else
System.out.println("Navigated to FAQs Page");
@Test(priority=5)
public void Highlight()
String home_title=driver.getTitle();
driver.findElement(By.linkText("Highlights")).click();
if(driver.getTitle().equals(home_title))
System.out.println("Not Navigated to Highlights Page");
}
else
System.out.println("Navigated to Highlights Page");
@Test(priority=6)
public void search() throws InterruptedException
driver.findElement(By.xpath("//*[@class=\"form-control me-2\"]")).sendKeys("Kia");
Thread.sleep(2000);
System.out.println("No Suggestions found");
@Test(priority=7)
```

```
public void search_btn()
String home title=driver.getTitle();
driver.findElement(By.xpath("//*[@class=\"form-control me-2\"]")).sendKeys("Kia EV6");
driver.findElement(By.xpath("//*[text()=\"Search\"]")).click();
if(driver.getTitle().equals(home_title))
System.out.println("Not Navigated to Searched car Page");
else
System.out.println("Navigated to Searched car Page");
@Test(priority=8)
public void slider() throws InterruptedException
for(int i=0; i<8; i++)
driver.findElement(By.xpath("//*[@class='carousel-control-next-icon']")).click();
Thread.sleep(1000);
System.out.println("Next icon arrow is not aligned");
@AfterMethod
public void after() throws InterruptedException
Thread.sleep(3000);
driver.close();
```

3.2 Automation codes of Social Media links:

• Link Navigations:

```
package Shreyashpkg;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;
import org.testng.annotations.AfterMethod;
import org.testng.annotations.BeforeMethod;
import org.testng.annotations.Test;
public class LinkNavigations
WebDriver driver;
@BeforeMethod
public void before()
driver = new ChromeDriver();
driver.manage().window().maximize();
driver.get("https://bhaskarab7.github.io/KiaCars/Kia Home.html");
@Test(priority=1)
public void facebook()
String exp url = "https://www.facebook.com/Kiaworldwideofficial";
driver.findElement(By.xpath("//*[@href=\"https://www.facebook.com/Kiaworldwideofficial\"
]")).click();
String cur url = driver.getCurrentUrl();
if(exp url.contains(cur url))
System.out.println("User navigated to facebook page");
else
```

```
System.out.println("User did not navigate to facebook page");
@Test(priority=2)
public void instagram()
String exp title = "Kia Worldwide (@kia.worldwide) • Instagram photos and videos";
driver.findElement(By.xpath("//*[@href='https://www.instagram.com/kia.worldwide/"")).click
();
String cur_title = driver.getTitle();
if(exp_title.contains(cur_title))
System.out.println("User navigated to Instagram page");
else
System.out.println("User did not navigate to Instagram page");
@Test(priority=3)
public void twitter()
String exp url = "https://twitter.com/Kia Worldwide";
driver.findElement(By.xpath("//*[@href='https://twitter.com/Kia_Worldwide']")).click();
String cur_url = driver.getCurrentUrl();
if(exp_url.contains(cur_url))
System.out.println("User navigated to twitter page");
else
```

```
System.out.println("User did not navigate to twitter page");
@Test(priority=4)
public void linkedin()
String exp_title = "LinkedIn";
driver.findElement(By.xpath("//*[@href='https://www.linkedin.com/company/kiaworldwide/"
")).click();
String cur_title = driver.getTitle();
if(exp_title.contains(cur_title))
System.out.println("User navigated to linkedin page");
else
System.out.println("User did not navigate to linked page");
@AfterMethod
public void after() throws InterruptedException
Thread.sleep(3000);
driver.close();
```

3.3 Automation codes of contact form:

Contact Form:

```
package testng;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;
import org.testng.annotations.AfterMethod;
import org.testng.annotations.BeforeMethod;
import org.testng.annotations.Ignore;
import org.testng.annotations.Test;
public class KiaCars Project2
WebDriver driver;
@BeforeMethod
public void before()
driver = new ChromeDriver();
driver.get("https://bhaskarab7.github.io/KiaCars/Kia Home.html?#");
//Full name field
@Test(priority=-2)
public void method1() throws InterruptedException
driver.findElement(By.id("exampleInputName1")).sendKeys("Neha Sharnagat");
driver.findElement(By.xpath("//input[@type='email']")).sendKeys("nehasharnagat24@gmail.
driver.findElement(By.xpath("//input[@type='mobile']")).sendKeys("9022456578");
driver.findElement(By.xpath("//*[@type='message']")).sendKeys("I like cars. Car No. MH-
456 @$# .");
driver.findElement(By.xpath("//button[@type='submit']")).click();
Thread.sleep(5000);
@Test(priority=-1)
public void method2() throws InterruptedException
driver.findElement(By.id("exampleInputName1")).sendKeys("123456 678 ");
driver.findElement(By.xpath("//input[@type='email']")).sendKeys("#$@@123gail.com");
driver.findElement(By.xpath("//input[@type='mobile']")).sendKeys("902-2A123@4");
driver.findElement(By.xpath("//*[@type='message']")).sendKeys("I like cars. Car No. MH-
456 @$# .");
driver.findElement(By.xpath("//button[@type='submit']")).click();
Thread.sleep(5000);
```

```
@Test(priority=1)
public void method3() throws InterruptedException
driver.findElement(By.id("exampleInputName1")).sendKeys("Neh@ Sharnagat");
driver.findElement(By.xpath("//input[@type='email']")).sendKeys("neha
                                                                                      (a)
                        //show popup
gmail.com");
driver.findElement(By.xpath("//input[@type='mobile']")).sendKeys("90224565789823");
driver.findElement(By.xpath("//*[@type='message']")).sendKeys("I like cars. Car No. MH-
456 @$# .");
driver.findElement(By.xpath("//button[@type='submit']")).click();
Thread.sleep(7000);
@Test(priority=2)
public void method4() throws InterruptedException
driver.findElement(By.id("exampleInputName1")).sendKeys("Neha Sharnagat");
driver.findElement(By.xpath("//input[@type='email']")).sendKeys("nehasharnagat@");
//show popup
driver.findElement(By.xpath("//input[@type='mobile']")).sendKeys("90556478");
driver.findElement(By.xpath("//*[@type='message']")).sendKeys("I like cars. Car No. MH-
456 @$# .");
driver.findElement(By.xpath("//button[@type='submit']")).click();
Thread.sleep(7000);
@AfterMethod
public void afterMethod()
driver.close();
```

3.4 Automation codes of highlights, FAQ's part, connect with us links.

Mouse actions:

```
package kc;
import org.openqa.selenium.By;
import org.openqa.selenium.JavascriptExecutor;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.firefox.FirefoxDriver;
import org.openqa.selenium.interactions.Actions;
public class TC 013
public static void main(String[] args) throws Exception
System.setProperty("webdriver.gecko.driver1", "D:\\ASHAYY\\geckodriver1.exe1");
WebDriver d = new FirefoxDriver();
d.navigate().to("https://bhaskarab7.github.io/KiaCars/Kia Home.html?#");
Thread.sleep(2000);
System.out.println("firefox opened");
JavascriptExecutor js = (JavascriptExecutor) d;
js.executeScript("window.scrollBy(0,2500)");
Thread.sleep(2000);
System.out.println("scrolled down");
Actions ac = new Actions(d);
ac.moveToElement(d.findElement(By.linkText("Scrap my car"))).perform();
System.out.println("performed mouse hover action");
       }
```

• Dropdown of FAQ's:

```
package kc;
import org.openqa.selenium.By;
import org.openqa.selenium.JavascriptExecutor;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.firefox.FirefoxDriver;
public class TC_019
public static void main(String[] args) throws Exception
System.setProperty("webdriver.gecko.driver1", "D:\\ASHAYY\\geckodriver1.exe1");
WebDriver d = new FirefoxDriver();
d.navigate().to("https://bhaskarab7.github.io/KiaCars/Kia_Home.html?#\");
Thread.sleep(2000);
System.out.println("firefox opened");
JavascriptExecutor js = (JavascriptExecutor) d;
js.executeScript("window.scrollBy(0,2500)");
Thread.sleep(2000);
System.out.println("scrolled down");
d.findElement(By.className("accordion-button")).click();
System.out.println("clicked on dropdown");
```

• Highlight of Dropdown:

```
package kc;
import org.openqa.selenium.By;
import org.openqa.selenium.JavascriptExecutor;
import org.openqa.selenium.Keys;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.firefox.FirefoxDriver;
import java.awt.Robot;
import java.awt.event.KeyEvent;
public class TC 020 {
       public static void main(String[] args) throws Exception{
       System.setProperty("webdriver.gecko.driver1", "D:\\ASHAYY\\geckodriver1.exe1");
       WebDriver d = new FirefoxDriver();
       d.navigate().to("https://bhaskarab7.github.io/KiaCars/Kia Home.html?#");
       Thread.sleep(2000);
       System.out.println("firefox opened");
       JavascriptExecutor js = (JavascriptExecutor) d;
       js.executeScript("window.scrollBy(0,2500)");
       Thread.sleep(2000);
       System.out.println("scrolled down");
       d.findElement(By.className("accordion-button")).click();
       System.out.println("clicked on dropdown");
       Thread.sleep(2000);
       Robot r = new Robot();
       r.keyPress(KeyEvent.VK TAB);
       r.keyRelease(KeyEvent.VK TAB);
       System.out.println("dropdown highlighted");
```

3.1 Test Cases and Defect Report.



kia_cars_test_cases_u pdated.xlsx



Defect_report_update dd.xlsx

Conclusion

Automation testing is a critical component of any software development process. It ensures the quality and reliability of applications while reducing the time and effort required to perform manual testing. With the right tools and approach, organizations can improve the speed and accuracy of their testing, catch bugs earlier in the development cycle, and ultimately deliver better products to their customers.

There are many bugs found in the Kia cars home page and bug report is created in excel regarding to all the bug and also assigned in zephyr tool.

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