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*CS6474: Software Testing Laboratory*  
*(Spring 2022)*

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January 22, 2023

# **CS6474: Software Testing Laboratory 2022**

## **SELENIUM WEBDRIVER**

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# 1 Selenium WebDriver

Selenium WebDriver is the most important component of Selenium Tool's Suite. The latest release "Selenium 2.0" is integrated with WebDriver API which provides a simpler and more concise programming interface.

The following image will give you a fair understanding of Selenium components and the Test Automation Tools.

Selenium WebDriver was first introduced as a part of Selenium v2.0. The initial version of Selenium i.e Selenium v1 consisted of only IDE, WebDriver and Grid. However, with the release of Selenium v3, WebDriver has been deprecated and moved to legacy package.

In WebDriver, test scripts can be developed using any of the supported programming languages and can be run directly in most modern web browsers. Languages supported by WebDriver include C, Java, Perl, PHP, Python and Ruby.

## 1.1 Google Search

Selenium WebDriver Screenshot of Calculator.net website.

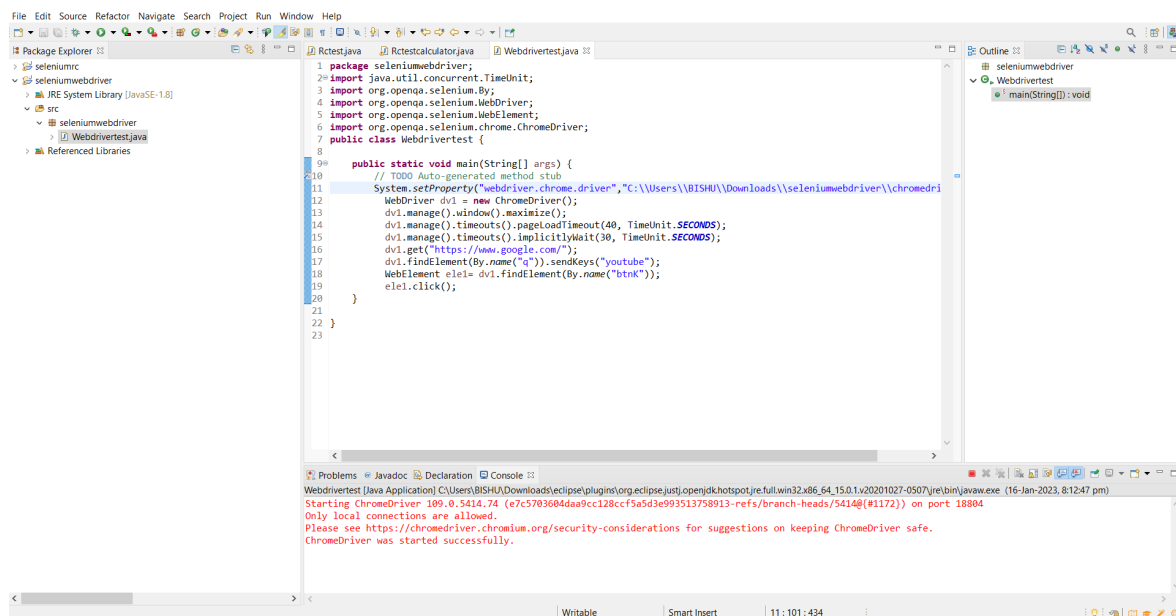


Figure 1: Google search WebDrive

### 1.1.1 Selenium WebDriver google search

```
1 package seleniumwebdriver;
2 import java.util.concurrent.TimeUnit;
3 import org.openqa.selenium.By;
4 import org.openqa.selenium.WebDriver;
```

```

5 import org.openqa.selenium.WebElement;
6 import org.openqa.selenium.chrome.ChromeDriver;
7 public class Webdrivertest {
8
9     public static void main(String[] args) {
10         // TODO Auto-generated method stub
11         System.setProperty("webdriver.chrome.driver", "C:\\Users\\BISHU\\Downloads\\seleniumwebdriver\\chromedriver.exe");
12         WebDriver dv1 = new ChromeDriver();
13         dv1.manage().window().maximize();
14         dv1.manage().timeouts().pageLoadTimeout(40, TimeUnit.SECONDS);
15
16         dv1.manage().timeouts().implicitlyWait(30, TimeUnit.SECONDS);
17         dv1.get("https://www.google.com/");
18         dv1.findElement(By.name("q")).sendKeys("youtube");
19         WebElement ele1= dv1.findElement(By.name("btnK"));
20         ele1.click();
21     }
}

```

## 1.2 Calculator.net

Selenium WebDriver Screenshot of Calculator.net website.

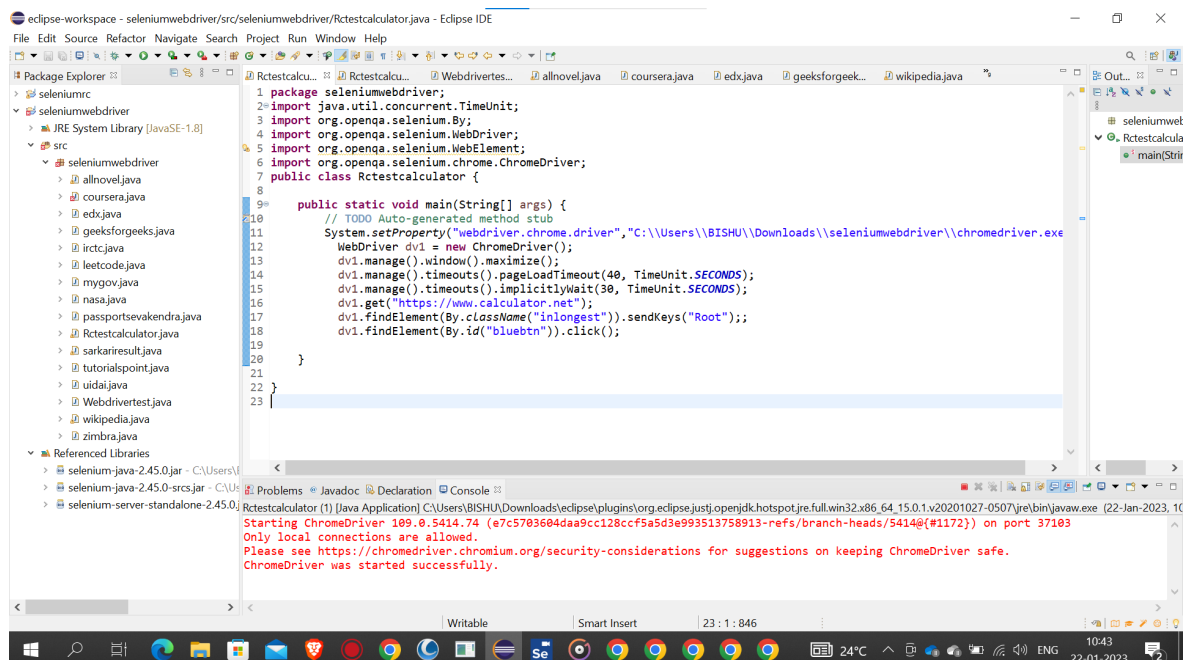


Figure 2: Selenium WebDriver for Calculator.net Website

### 1.2.1 Selenium WebDriver calculator

```

1 package seleniumwebdriver;
2 import java.util.concurrent.TimeUnit;
3 import org.openqa.selenium.By;
4 import org.openqa.selenium.WebDriver;
5 import org.openqa.selenium.WebElement;
6 import org.openqa.selenium.chrome.ChromeDriver;
7 public class calculator {
8
9     public static void main(String[] args) {
10         // TODO Auto-generated method stub
11         System.setProperty("webdriver.chrome.driver","C:\\Users\\BISHU
            \\Downloads\\seleniumwebdriver\\chromedriver.exe");
12         WebDriver dv1 = new ChromeDriver();
13         dv1.manage().window().maximize();
14         dv1.manage().timeouts().pageLoadTimeout(40, TimeUnit.SECONDS)
            ;
15         dv1.manage().timeouts().implicitlyWait(30, TimeUnit.SECONDS);
16         dv1.get("https://www.calculator.net");
17         dv1.findElement(By.className("inlongest")).sendKeys("Root");;
18         dv1.findElement(By.id("bluebtn")).click();
19
20     }
21
22 }

```

## 1.3 Coursera

Selenium WebDriver Screenshot of Coursera website.

### 1.3.1 Selenium WebDriver Coursera

```

1 package seleniumwebdriver;
2 import java.util.concurrent.TimeUnit;
3 import org.openqa.selenium.By;
4 import org.openqa.selenium.WebDriver;
5 import org.openqa.selenium.WebElement;
6 import org.openqa.selenium.chrome.ChromeDriver;
7
8 public class coursera {
9
10     public static void main(String[] args) {
11         // TODO Auto-generated method stub
12         System.setProperty("webdriver.chrome.driver","C:\\Users\\BISHU
            \\Downloads\\seleniumwebdriver\\chromedriver.exe");
13         WebDriver dv1 = new ChromeDriver();
14         dv1.manage().window().maximize();

```

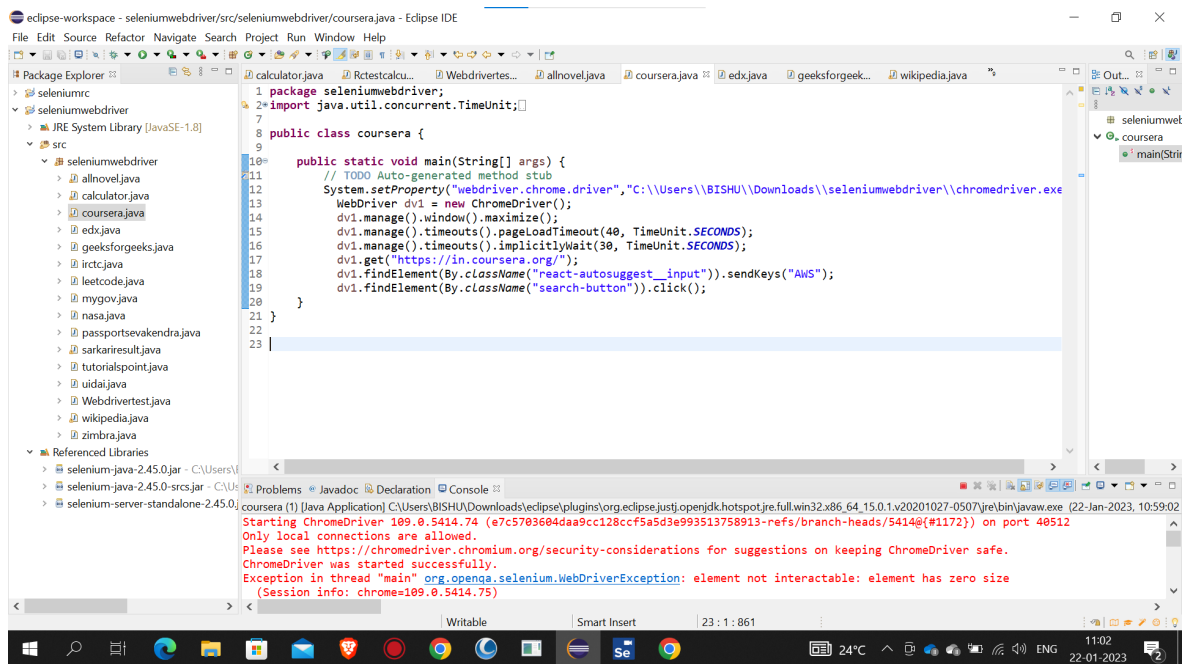


Figure 3: Selenium WebDriver for Coursera Website

```

15     dv1.manage().timeouts().pageLoadTimeout(40, TimeUnit.SECONDS);
16     ;
17     dv1.manage().timeouts().implicitlyWait(30, TimeUnit.SECONDS);
18     dv1.get("https://in.coursera.org/");
19     dv1.findElement(By.className("react-autosuggest__input")).
20         sendKeys("AWS");
21     dv1.findElement(By.className("search-button")).click();
22 }
23 }

```

## 1.4 IRCTC

Selenium WebDriver Screenshot of IRCTC website.

### 1.4.1 Selenium WebDriver IRCTC

```

1 package seleniumwebdriver;
2 import java.util.concurrent.TimeUnit;
3 import org.openqa.selenium.By;
4 import org.openqa.selenium.WebDriver;
5 import org.openqa.selenium.WebElement;
6 import org.openqa.selenium.chrome.ChromeDriver;
7
8 public class irctc {
9
10     public static void main(String[] args) {

```

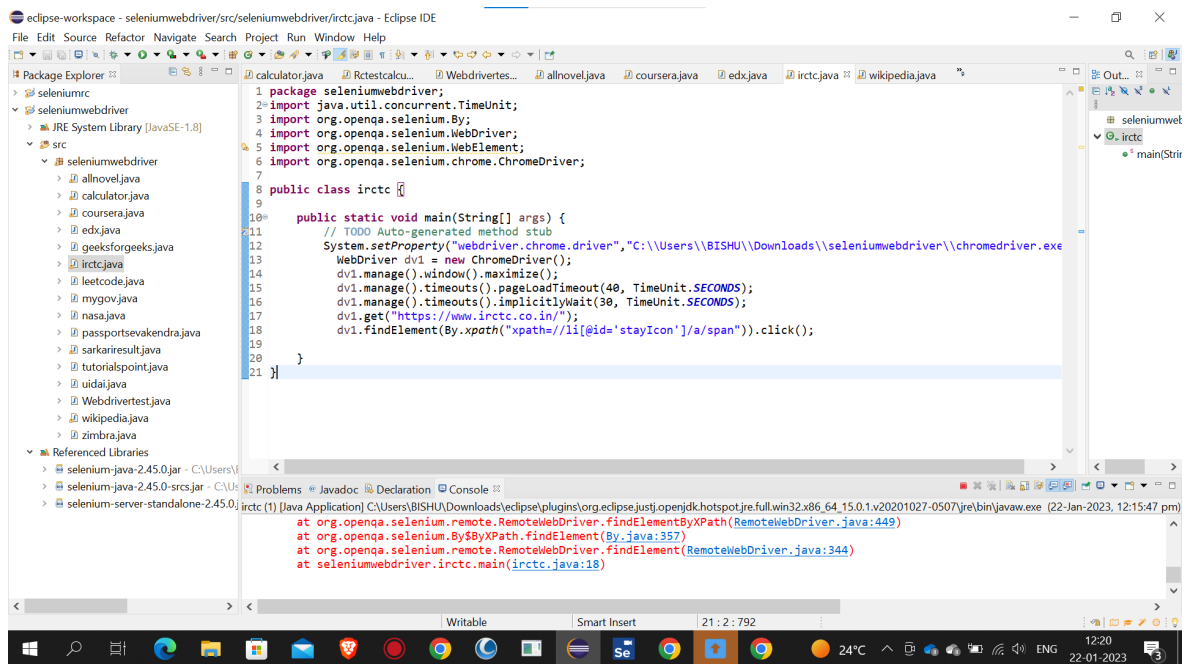


Figure 4: Selenium WebDriver for IRCTC Website

```

11 // TODO Auto-generated method stub
12 System.setProperty("webdriver.chrome.driver", "C:\\Users\\BISHU\\Downloads\\seleniumwebdriver\\chromedriver.exe");
13 WebDriver dv1 = new ChromeDriver();
14 dv1.manage().window().maximize();
15 dv1.manage().timeouts().pageLoadTimeout(40, TimeUnit.SECONDS);
16 dv1.manage().timeouts().implicitlyWait(30, TimeUnit.SECONDS);
17 dv1.get("https://www.irctc.co.in/");
18 dv1.findElement(By.xpath("xpath=//li[@id='stayIcon']/a/span"))
19     .click();
20 }
21 }

```

## 1.5 Allnovel

Selenium WebDriver Screenshot of Allnovel website.

### 1.5.1 Selenium WebDriver Allnovel

```

1 package seleniumwebdriver;
2 import java.util.concurrent.TimeUnit;
3 import org.openqa.selenium.By;
4 import org.openqa.selenium.WebDriver;
5 import org.openqa.selenium.WebElement;

```



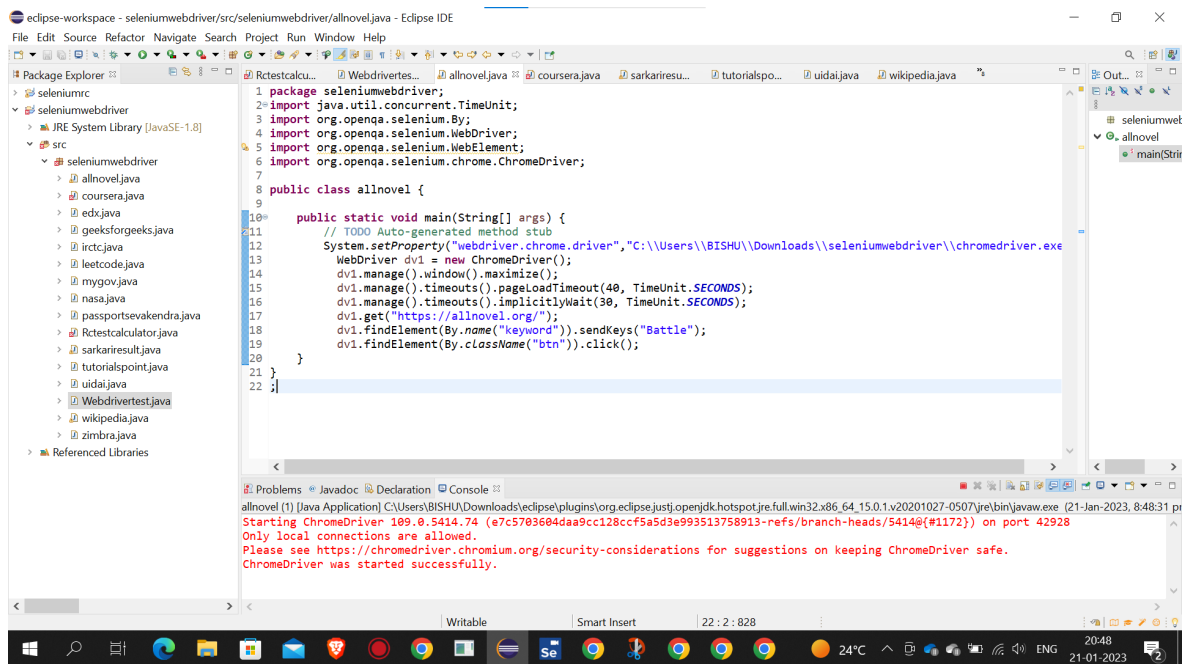


Figure 5: Selenium WebDriver for Allnovel Website

```

6 import org.openqa.selenium.chrome.ChromeDriver;
7 public class allnovel {
8     public static void main(String[] args) {
9         // TODO Auto-generated method stub
10        System.setProperty("webdriver.chrome.driver", "C:\\Users\\BISHU\\Downloads\\seleniumwebdriver\\chromedriver.exe");
11        WebDriver dv1 = new ChromeDriver();
12        dv1.manage().window().maximize();
13        dv1.manage().timeouts().pageLoadTimeout(40, TimeUnit.SECONDS);
14        dv1.manage().timeouts().implicitlyWait(30, TimeUnit.SECONDS);
15        dv1.get("https://allnovel.org/");
16        dv1.findElement(By.name("keyword")).sendKeys("Battle");
17        dv1.findElement(By.className("btn")).click();
18    }
19 }

```

## 1.6 EDX

Selenium WebDriver Screenshot of EDX website.

### 1.6.1 Selenium WebDriver EDX

```

1 package seleniumwebdriver;
2 import java.util.concurrent.TimeUnit;

```

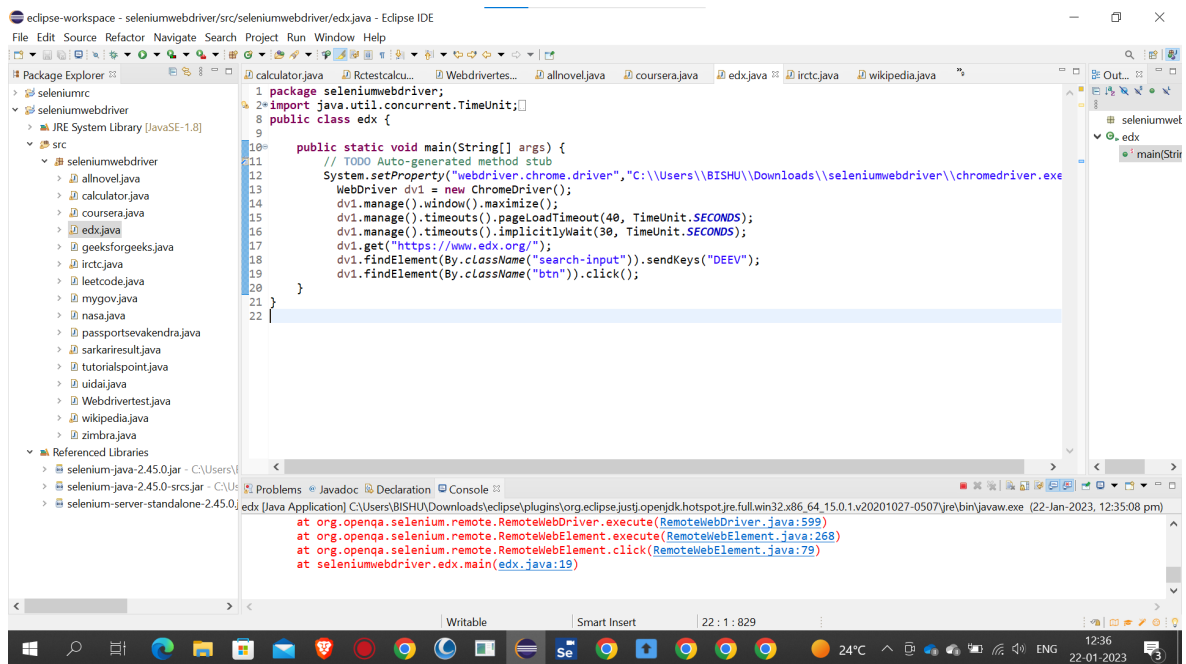


Figure 6: Selenium WebDriver for EDX Website

```

3
4 import org.openqa.selenium.By;
5 import org.openqa.selenium.WebDriver;
6 import org.openqa.selenium.WebElement;
7 import org.openqa.selenium.chrome.ChromeDriver;
8 public class edx {
9
10 public static void main(String[] args) {
11     // TODO Auto-generated method stub
12     System.setProperty("webdriver.chrome.driver", "C:\\Users\\BISHU\\Downloads\\seleniumwebdriver\\chromedriver.exe");
13     WebDriver dv1 = new ChromeDriver();
14     dv1.manage().window().maximize();
15     dv1.manage().timeouts().pageLoadTimeout(40, TimeUnit.SECONDS);
16     dv1.manage().timeouts().implicitlyWait(30, TimeUnit.SECONDS);
17     dv1.get("https://www.edx.org/");
18     dv1.findElement(By.className("search-input")).sendKeys("DEEV");
19     dv1.findElement(By.className("btn")).click();
20 }
21 }

```

## 1.7 Geeksforgeeks

Selenium WebDriver Screenshot of Geeksforgeeks website.

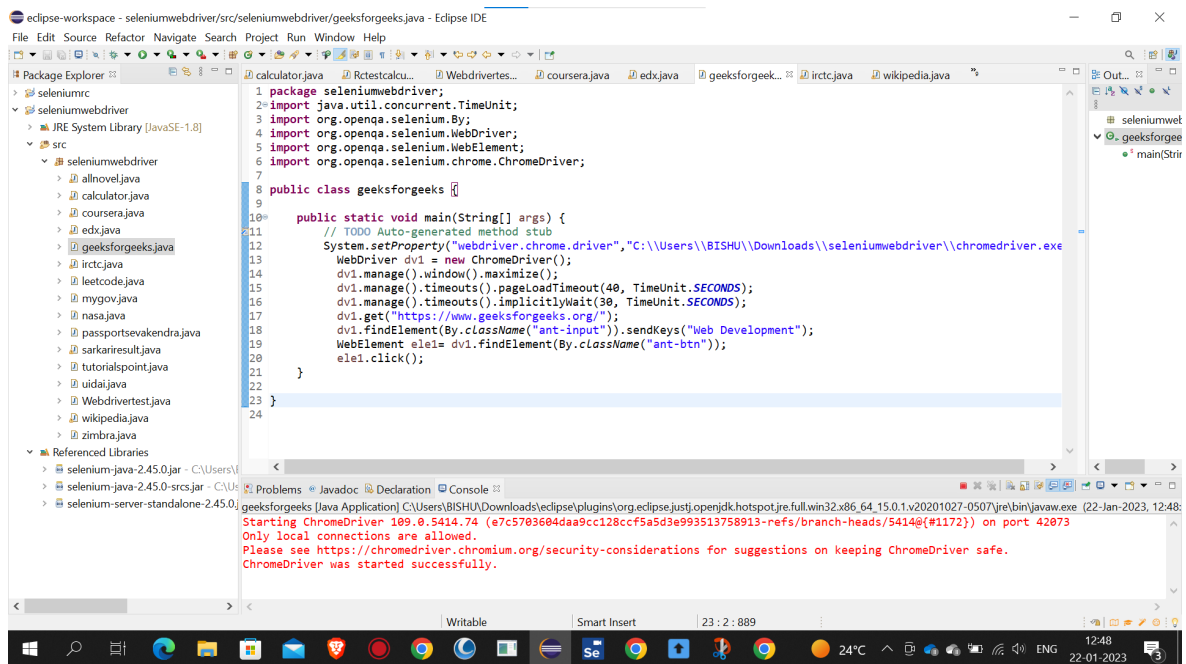


Figure 7: Selenium WebDriver for Geeksforgeeks Website

### 1.7.1 Selenium WebDriver Geeksforgeeks

```

1 package seleniumwebdriver;
2 import java.util.concurrent.TimeUnit;
3 import org.openqa.selenium.By;
4 import org.openqa.selenium.WebDriver;
5 import org.openqa.selenium.WebElement;
6 import org.openqa.selenium.chrome.ChromeDriver;
7
8 public class geeksforgewebs {
9
10     public static void main(String[] args) {
11         // TODO Auto-generated method stub
12         System.setProperty("webdriver.chrome.driver", "C:\\Users\\BISHU
13             \\Downloads\\seleniumwebdriver\\chromedriver.exe");
14         WebDriver dv1 = new ChromeDriver();
15         dv1.manage().window().maximize();
16         dv1.manage().timeouts().pageLoadTimeout(40, TimeUnit.SECONDS);
17         dv1.manage().timeouts().implicitlyWait(30, TimeUnit.SECONDS);
18         dv1.get("https://www.geeksforgewebs.org/");
19         dv1.findElement(By.className("ant-input")).sendKeys("Web
20             Development");
21         WebElement ele1= dv1.findElement(By.className("ant-btn"));
22         ele1.click();
23     }
24 }

```

## 1.8 Youtube

Selenium WebDriver Screenshot of Youtube website.

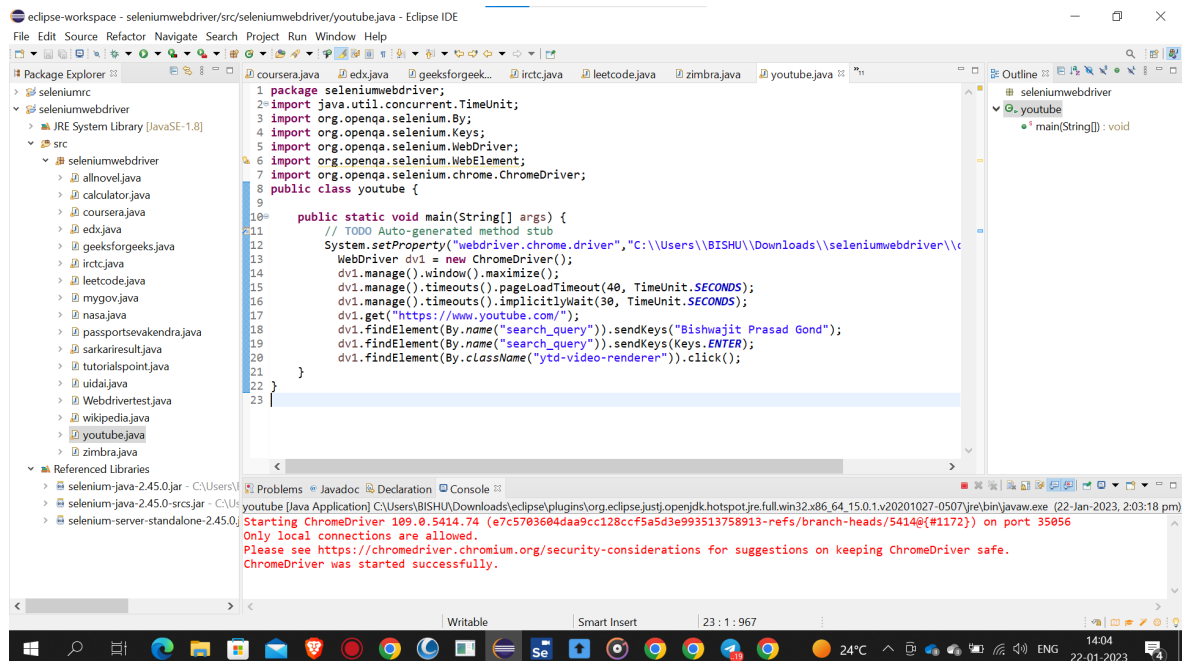


Figure 8: Selenium WebDriver for Youtube Website

### 1.8.1 Selenium WebDriver Youtube

```
1 package seleniumwebdriver;
2 import java.util.concurrent.TimeUnit;
3 import org.openqa.selenium.By;
4 import org.openqa.selenium.Keys;
5 import org.openqa.selenium.WebDriver;
6 import org.openqa.selenium.WebElement;
7 import org.openqa.selenium.chrome.ChromeDriver;
8 public class youtube {
9
10     public static void main(String[] args) {
11         // TODO Auto-generated method stub
12         System.setProperty("webdriver.chrome.driver", "C:\\Users\\BISHU\\Downloads\\seleniumwebdriver\\chromedriver.exe");
13         WebDriver dv1 = new ChromeDriver();
14         dv1.manage().window().maximize();
15         dv1.manage().timeouts().pageLoadTimeout(40, TimeUnit.SECONDS);
16
17         dv1.manage().timeouts().implicitlyWait(30, TimeUnit.SECONDS);
18         dv1.get("https://www.youtube.com/");
19         dv1.findElement(By.name("search_query")).sendKeys("Bishwajit Prasad Gond");
20     }
21 }
```

```

19     dv1.findElement(By.name("search_query")).sendKeys(Keys.ENTER)
20     ;
21     dv1.findElement(By.className("ytd-video-renderer")).click
22     ();
23 }
24 }

```

## 1.9 Indgovtjobs

Selenium WebDriver Screenshot of indgovtjobs website.

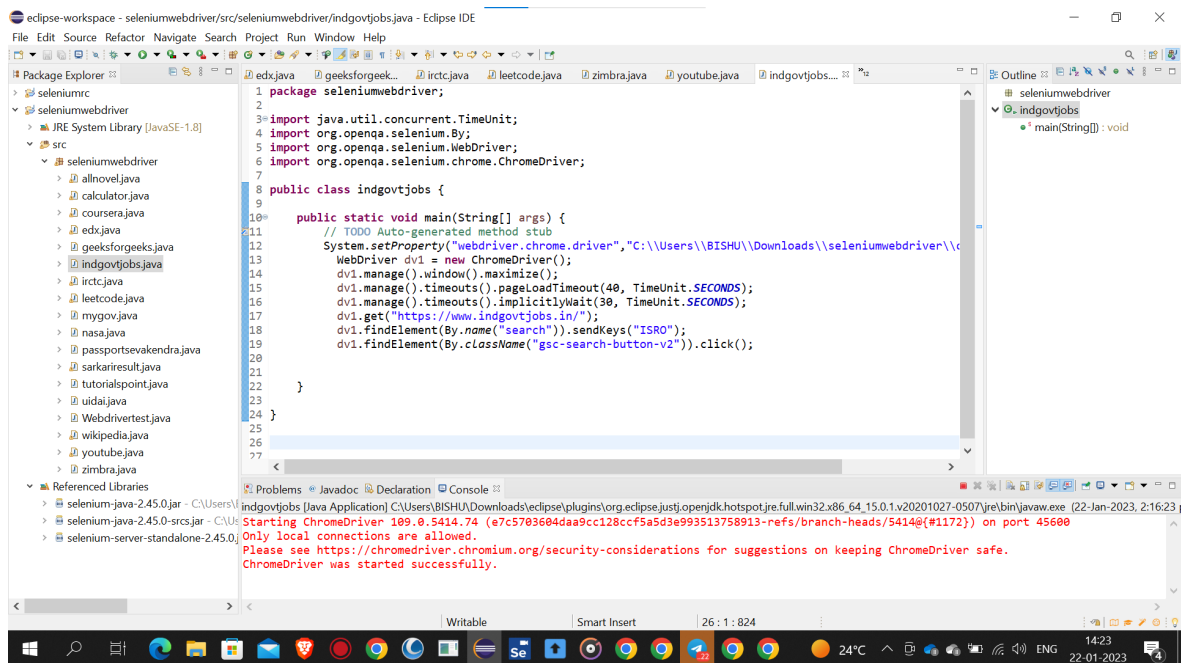


Figure 9: Selenium WebDriver for indgovtjobs Website

### 1.9.1 Selenium WebDriver indgovtjobs

```

1 package seleniumwebdriver;
2
3 import java.util.concurrent.TimeUnit;
4 import org.openqa.selenium.By;
5 import org.openqa.selenium.WebDriver;
6 import org.openqa.selenium.chrome.ChromeDriver;
7
8 public class indgovtjobs {
9
10     public static void main(String[] args) {
11         // TODO Auto-generated method stub
12         System.setProperty("webdriver.chrome.driver", "C:\\Users\\BISHU\\Downloads\\seleniumwebdriver\\chromedriver.exe");

```

```

13     WebDriver dv1 = new ChromeDriver();
14     dv1.manage().window().maximize();
15     dv1.manage().timeouts().pageLoadTimeout(40, TimeUnit.SECONDS)
        ;
16     dv1.manage().timeouts().implicitlyWait(30, TimeUnit.SECONDS);
17     dv1.get("https://www.indgovtjobs.in/");
18     dv1.findElement(By.name("search")).sendKeys("ISRO");
19     dv1.findElement(By.className("gsc-search-button-v2")).click()
        ;
20
21
22 }
23
24 }

```

## 1.10 MyGov

Selenium WebDriver Screenshot of MyGov website.

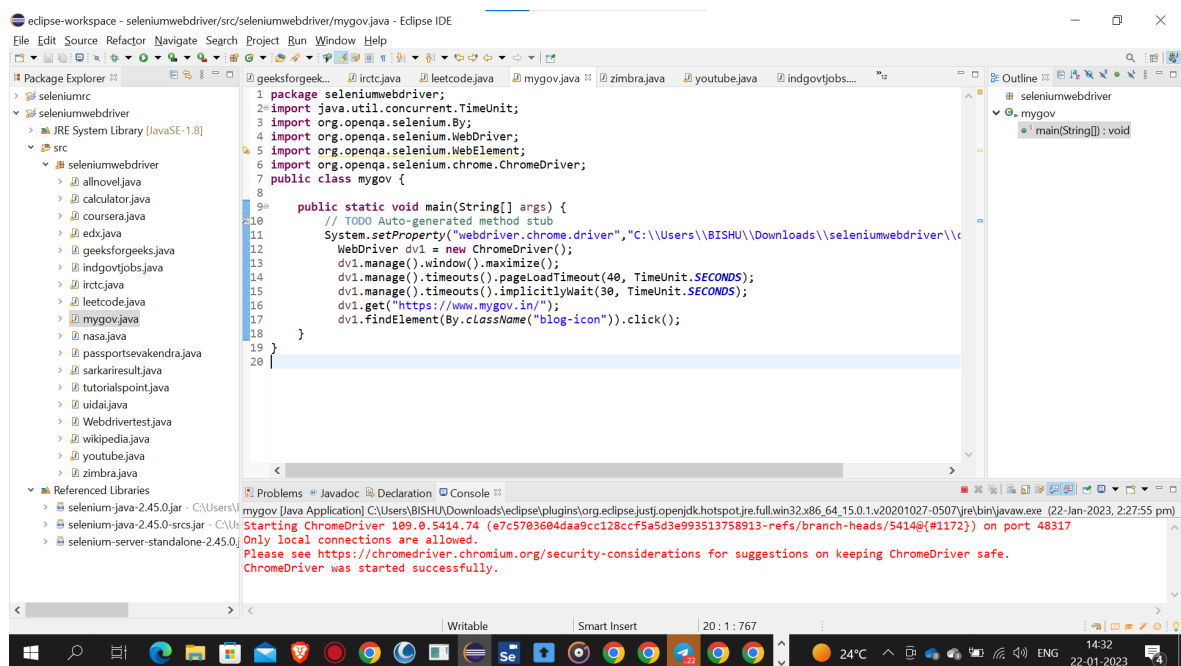


Figure 10: Selenium WebDriver for MyGov Website

### 1.10.1 Selenium WebDriver MyGov

```

1 package seleniumwebdriver;
2 import java.util.concurrent.TimeUnit;
3 import org.openqa.selenium.By;
4 import org.openqa.selenium.WebDriver;
5 import org.openqa.selenium.WebElement;

```

```

6 import org.openqa.selenium.chrome.ChromeDriver;
7 public class mygov {
8
9     public static void main(String[] args) {
10         // TODO Auto-generated method stub
11         System.setProperty("webdriver.chrome.driver", "C:\\\\Users\\BISHU
            \\Downloads\\seleniumwebdriver\\chromedriver.exe");
12         WebDriver dv1 = new ChromeDriver();
13         dv1.manage().window().maximize();
14         dv1.manage().timeouts().pageLoadTimeout(40, TimeUnit.SECONDS)
            ;
15         dv1.manage().timeouts().implicitlyWait(30, TimeUnit.SECONDS);
16         dv1.get("https://www.mycgov.in/");
17         dv1.findElement(By.className("blog-icon")).click();
18     }
19 }

```

## 1.11 PassportIndia

Selenium WebDriver Screenshot of PassportIndia website.

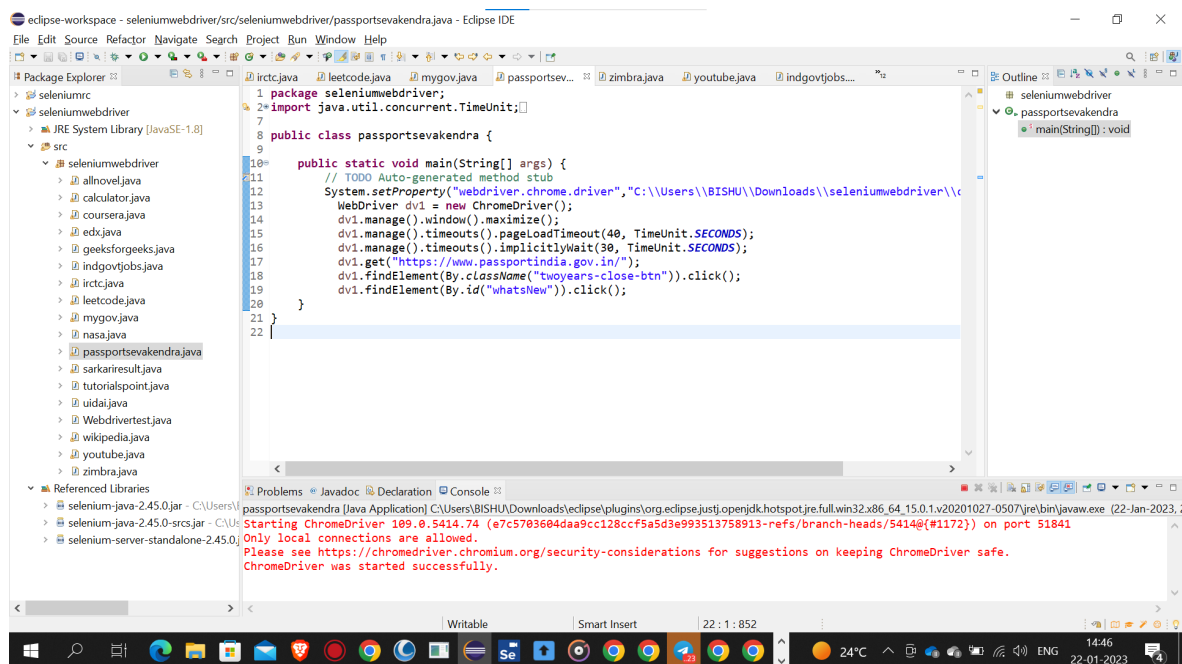


Figure 11: Selenium WebDriver for PassportIndia Website

### 1.11.1 Selenium WebDriver PassportIndia

```

1 package seleniumwebdriver;
2 import java.util.concurrent.TimeUnit;
3 import org.openqa.selenium.By;

```



```

4 import org.openqa.selenium.WebDriver;
5 import org.openqa.selenium.WebElement;
6 import org.openqa.selenium.chrome.ChromeDriver;
7
8 public class passportsevakendra {
9
10 public static void main(String[] args) {
11     // TODO Auto-generated method stub
12     System.setProperty("webdriver.chrome.driver", "C:\\Users\\BISHU\\Downloads\\seleniumwebdriver\\chromedriver.exe");
13     WebDriver dv1 = new ChromeDriver();
14     dv1.manage().window().maximize();
15     dv1.manage().timeouts().pageLoadTimeout(40, TimeUnit.SECONDS);
16     dv1.manage().timeouts().implicitlyWait(30, TimeUnit.SECONDS);
17     dv1.get("https://www.passportindia.gov.in/");
18     dv1.findElement(By.className("twoyears-close-btn")).click();
19     dv1.findElement(By.id("whatsNew")).click();
20 }
21 }

```

## 1.12 Wikipedia

Selenium WebDriver Screenshot of wikipedia website.

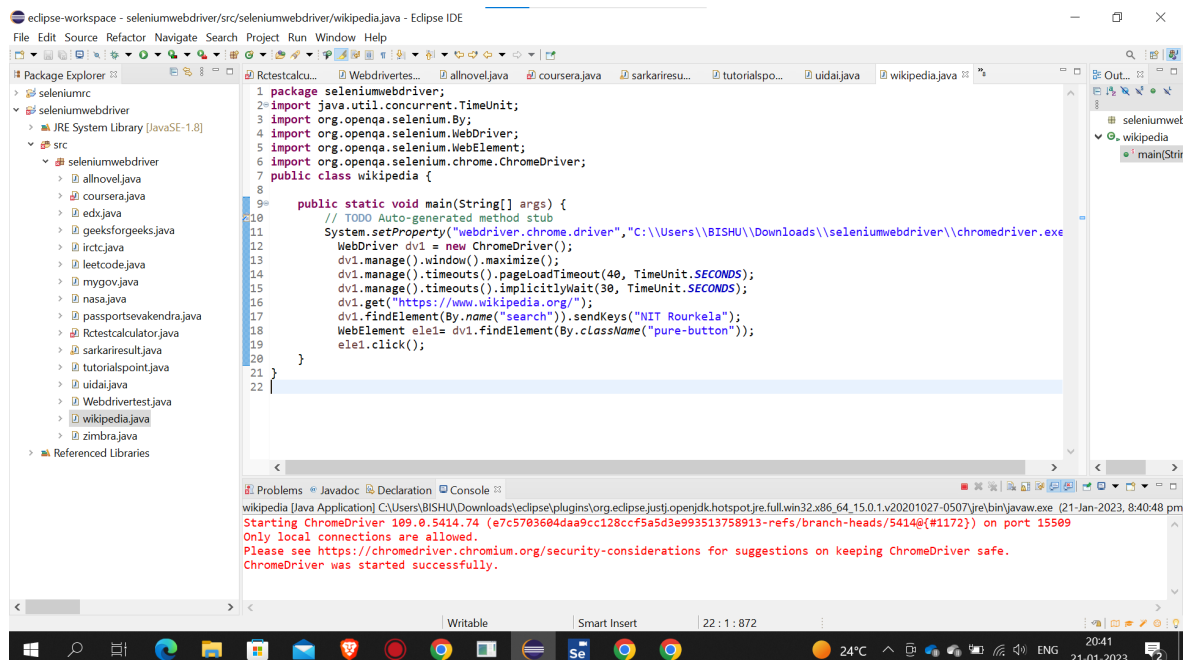


Figure 12: Selenium WebDriver for wikipedia Website

### 1.12.1 Selenium WebDriver wikipedia



```

1 package seleniumWebDriver;
2
3 import com.thoughtworks.selenium.DefaultSelenium;
4 import com.thoughtworks.selenium.Selenium;
5
6 public class wikipedia {
7
8     public static void main(String[] args) {
9         // TODO Auto-generated method stub
10        System.setProperty("webdriver.chrome.driver","C:\\Users\\BISHU
            \\Downloads\\seleniumwebdriver\\chromedriver.exe");
11        WebDriver dv1 = new ChromeDriver();
12        dv1.manage().window().maximize();
13        dv1.manage().timeouts().pageLoadTimeout(40, TimeUnit.SECONDS)
            ;
14        dv1.manage().timeouts().implicitlyWait(30, TimeUnit.SECONDS);
15        dv1.get("https://www.wikipedia.org/");
16        dv1.findElement(By.name("search")).sendKeys("NIT Rourkela");
17        dv1.findElement(By.className("pure-button")).click();
18    }
19
20 }

```

## 1.13 UIDAI

Selenium WebDriver Screenshot of UIDAI website.

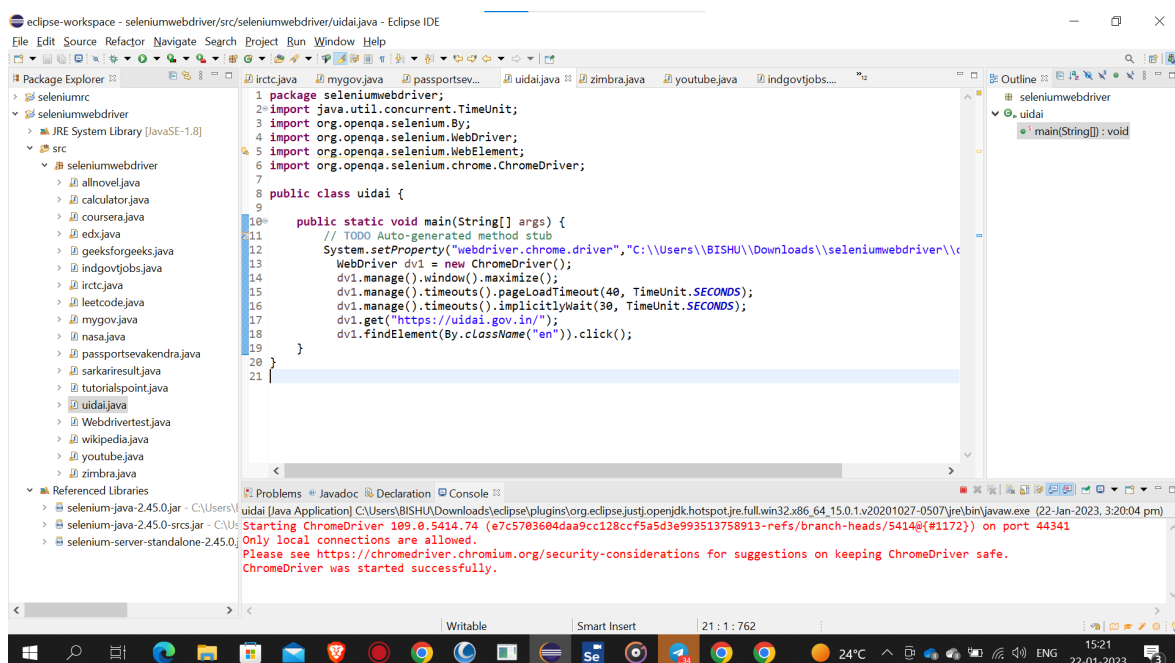


Figure 13: Selenium WebDriver for UIDAI Website

### 1.13.1 Selenium WebDriver UIDAI

```
1 package seleniumwebdriver;
2 import java.util.concurrent.TimeUnit;
3 import org.openqa.selenium.By;
4 import org.openqa.selenium.WebDriver;
5 import org.openqa.selenium.WebElement;
6 import org.openqa.selenium.chrome.ChromeDriver;
7
8 public class uidai {
9
10 public static void main(String[] args) {
11     // TODO Auto-generated method stub
12     System.setProperty("webdriver.chrome.driver","C:\\Users\\BISHU
13         \\Downloads\\seleniumwebdriver\\chromedriver.exe");
14     WebDriver dv1 = new ChromeDriver();
15     dv1.manage().window().maximize();
16     dv1.manage().timeouts().pageLoadTimeout(40, TimeUnit.SECONDS)
17         ;
18     dv1.manage().timeouts().implicitlyWait(30, TimeUnit.SECONDS);
19     dv1.get("https://uidai.gov.in/");
20     dv1.findElement(By.className("en")).click();
21 }
```

## 1.14 Zimbra

Selenium WebDriver Screenshot of Zimbra website.

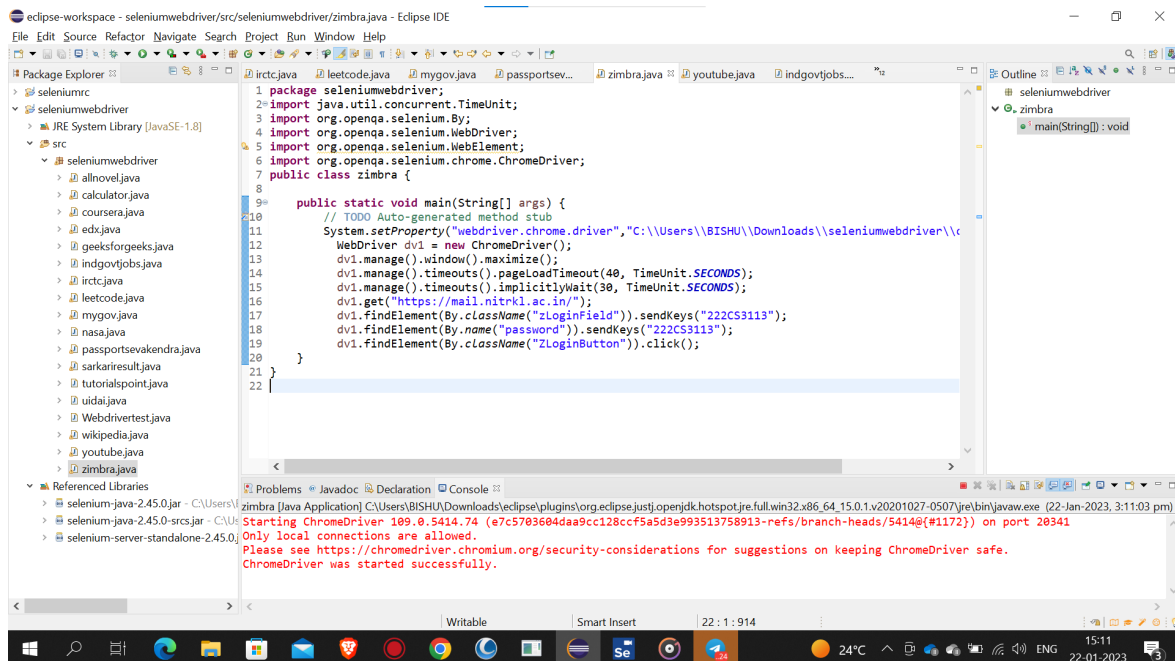


Figure 14: Selenium WebDriver for Zimbra Website

### 1.14.1 Selenium WebDriver Zimbra

```
1 package seleniumwebdriver;
2 import java.util.concurrent.TimeUnit;
3 import org.openqa.selenium.By;
4 import org.openqa.selenium.WebDriver;
5 import org.openqa.selenium.WebElement;
6 import org.openqa.selenium.chrome.ChromeDriver;
7 public class zimbra {
8
9     public static void main(String[] args) {
10         // TODO Auto-generated method stub
11         System.setProperty("webdriver.chrome.driver", "C:\\Users\\BISHU\\Downloads\\seleniumwebdriver\\chromedriver.exe");
12         WebDriver dv1 = new ChromeDriver();
13         dv1.manage().window().maximize();
14         dv1.manage().timeouts().pageLoadTimeout(40, TimeUnit.SECONDS);
15         dv1.manage().timeouts().implicitlyWait(30, TimeUnit.SECONDS);
16         dv1.get("https://mail.nitrkl.ac.in/");
17         dv1.findElement(By.className("zLoginField")).sendKeys("222CS3113");
18         dv1.findElement(By.name("password")).sendKeys("222CS3113");
19         dv1.findElement(By.className("ZLoginButton")).click();
20     }
21 }
22 }
```

```

19     dv1.findElement(By.className("ZLoginButton")).click();
20 }
21 }

```

## 1.15 Maxdroid

Selenium WebDriver Screenshot of Maxdroid website.

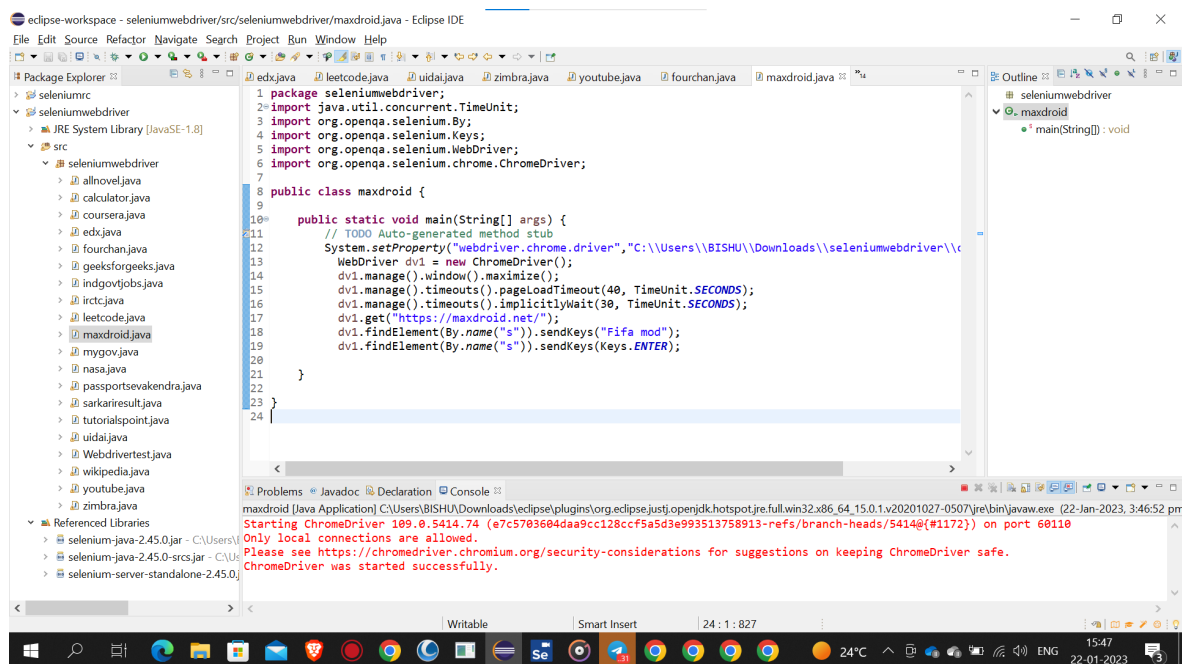


Figure 15: Selenium WebDriver for Maxdroid Website

### 1.15.1 Selenium WebDriver Maxdroid

```

1 package seleniumwebdriver;
2 import java.util.concurrent.TimeUnit;
3 import org.openqa.selenium.By;
4 import org.openqa.selenium.Keys;
5 import org.openqa.selenium.WebDriver;
6 import org.openqa.selenium.chrome.ChromeDriver;
7
8 public class maxdroid {
9
10     public static void main(String[] args) {
11         // TODO Auto-generated method stub
12         System.setProperty("webdriver.chrome.driver", "C:\\Users\\BISHU\\Downloads\\seleniumwebdriver\\chromedriver.exe");
13         WebDriver dv1 = new ChromeDriver();
14         dv1.manage().window().maximize();

```

```
15     dv1.manage().timeouts().pageLoadTimeout(40, TimeUnit.SECONDS)
16         ;
17     dv1.manage().timeouts().implicitlyWait(30, TimeUnit.SECONDS);
18     dv1.get("https://maxdroid.net/");
19     dv1.findElement(By.name("s")).sendKeys("Fifa mod");
20     dv1.findElement(By.name("s")).sendKeys(Keys.ENTER);
21 }
22
23 }
```