ASSIGNMENT – 6

Application Development and Maintenance

Web Application used   :   Blood Bank & Donor

Management System

Testing tool used   :   Selenium

Group members

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WEB APPLICATION

Blood Bank & Donor Management System

Blood Bank Management System (BBMS) is a Web-based application that is designed to store, process, retrieve and analyse information concerned with the administrative and inventory management within a blood bank.

Project Name   : Blood Bank & Donor Management System
Language Used   : PHP
Database   : My SQL
User Interface Design   : HTML, AJAX,JQUERY,JAVASCRIPT
Web Browser   : Mozilla, Google Chrome, IE8,OPERA
Software   : XAMPP Server Blood Bank & Donor

Management System motive at maintaining all the information related to blood donors, different blood groups available in each blood bank and help them manage in a better way.

Visitor Feature's (Front end):

- Responsive Template, Mobile Friendly
- Easy to use
- Blood Donor Registration System
- Blood Group and location-based search engine
- Donor Details Information
- Contact us Inquiry

Admin Feature's (Administration Section):

- Manage Blood Group(add, delete)
- Add and Delete Donor Information
- Enable and Disable Donors
- Manage Website Pages
- Manage to Contact us Queries
- Update the contact us Info
- Admin Dashboard

AUTOMATION TESTING

Automation testing is a Software testing technique to test and compare the actual outcome with the expected outcome. This can be achieved by writing test scripts or using any automation testing tool. Test automation is used to automate repetitive tasks and other testing tasks which are difficult to perform manually.

Manual software testing is performed by a human sitting in front of a computer carefully going through application screens, trying various usage and input combinations, comparing the results to the expected behaviour and recording their observations. Manual tests are repeated often during development cycles for source code changes and other situations like multiple operating environments and hardware configurations.

Automated software testing has long been considered critical for big software development organizations but is often thought to be too expensive or difficult for smaller companies to implement. Smart Bear's Tools are affordable enough for single developer shops and yet powerful enough that our customer list includes some of the largest and most respected companies in the world.

SELENIUM

Selenium is a free (open-source) automated testing framework used to validate web applications across different browsers and platforms. You can use multiple programming languages like Java, C#, Python etc to create Selenium Test Scripts. Testing done using the Selenium tool is usually referred to as Selenium Testing.

Selenium Software is not just a single tool but a suite of software, each piece catering to different testing needs of an organization. Here is the list of tools

- Selenium Integrated Development Environment (IDE)
- Selenium Remote Control (RC)
- Web Driver
- Selenium Grid
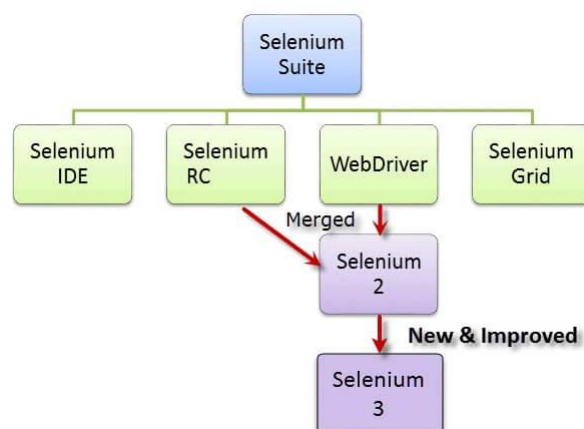
Advantages of Selenium

➢ Selenium is an Open Source Software.
➢ Selenium supports various programming languages to write programs (Test scripts)
➢ Selenium supports various operating systems (MS Windows, Linux, Macintosh etc...)
➢ Selenium supports various Browsers (Mozilla Firefox, Google Chrome, IE, Opera, Safari etc...)
➢ Selenium supports Parallel Test Execution.
➢ Selenium uses less Hardware resources.

Steps to install selenium WebDriver for windows.

Step 1) Install java on windows machine (JDK)

First verify whether java is already installed on your machine or not go to command prompt and type command "java -version" and press enter.
if java is already installed on your machine then system will give you output like this
java version "1.8.0_73"
Java(TM) SE Runtime Environment (build 1.8.0_73-b02)
Java HotSpot(TM) 64-Bit Server VM (build 25.73-b02, mixed mode) ….
If java is not installed then system will give you output like this.
'java' is not recognized as an internal or external command,
operable program or batch file.
If you get above message then click Install JAVA/JDK here
After navigating to above site click on JDK download link as mentioned below.
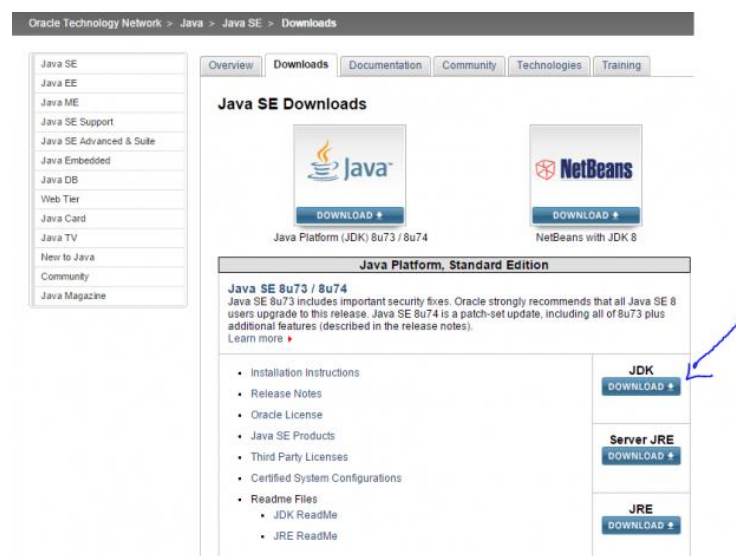
Then click on Radio Button "Accept License Agreement"

Java SE Development Kit 8u73

You must accept the Oracle Binary Code License Agreement for Java SE to download this software.

○ Accept License Agreement   ● Decline License Agreement

Product / File Description	File Size	Download
Linux ARM 32 Hard Float ABI	77.73 MB	jdk-8u73-linux-arm32-vfp-hflt.tar.gz
Linux ARM 64 Hard Float ABI	74.68 MB	jdk-8u73-linux-arm64-vfp-hflt.tar.gz
Linux x86	154.75 MB	jdk-8u73-linux-i586.rpm
Linux x86	174.91 MB	jdk-8u73-linux-i586.tar.gz
Linux x64	152.73 MB	jdk-8u73-linux-x64.rpm
Linux x64	172.91 MB	jdk-8u73-linux-x64.tar.gz
Mac OS X x64	227.25 MB	jdk-8u73-macosx-x64.dmg
Solaris SPARC 64-bit (SVR4 package)	139.7 MB	jdk-8u73-solaris-sparcv9.tar.Z
Solaris SPARC 64-bit	99.08 MB	jdk-8u73-solaris-sparcv9.tar.gz
Solaris x64 (SVR4 package)	140.36 MB	jdk-8u73-solaris-x64.tar.Z
Solaris x64	96.78 MB	jdk-8u73-solaris-x64.tar.gz
Windows x86	181.5 MB	jdk-8u73-windows-i586.exe
Windows x64	186.84 MB	jdk-8u73-windows-x64.exe

If your operating system is 32 bit then click on exe file for "Windows x86" , download it and Run.

if your operating system is 64 bit then click on exe file for "Windows x64" , download it and Run.

Step 2) Download ECLIPSE IDE from here.

Note : Please select appropriate version like 32 or 64 bit which support your windows.

Eclipse IDE for Java EE Developers

276 MB   219,676 DOWNLOADS

Tools for Java developers creating Java EE and Web applications, including a Java IDE, tools for Java EE, JPA, JSF, Mylyn...

Windows
32 bit | 64 bit

Now extract the downloaded zip file to C or D drive or wherever you want.

Step 3) Download selenium java client driver from here

Here we are creating the test scripts in java hence we require language specific drivers. select download link for java as mentioned below

Language	Client Version	Release Date			
Java	2.52.0	2016-02-11	Download	Change log	Javadoc
C#	2.52.0	2016-02-12	Download	Change log	API docs
Ruby	2.52.0	2016-02-12	Download	Change log	API docs
Python	2.52.0	2016-02-11	Download	Change log	API docs
Javascript (Node)	2.52.0	2016-02-11	Download	Change log	API docs

Now extract the downloaded zip file on C or D drive or wherever you want.
For maintenance purpose it is preferable if you placed all your installable or unzip file at one drive.

Step 4) Install Internet Explorer Driver Server from here

If application is running on internet explore then we need internet explorer driver.

The Internet Explorer Driver Server

This is required if you want to make use of the latest and greatest features of the WebDriver InternetExplorerDriver. Please make sure that this is available on your $PATH (or %PATH% on Windows) in order for the IE Driver to work as expected.

Download version 2.52.1 for (recommended) 32 bit Windows IE or 64 bit Windows IE
CHANGELOG

Selenium Client & WebDriver Language Bindings

Extract the downloaded zip file to C or D driver or wherever you want.

Step 5) Configure IDE (Eclipse) with Web Driver

Open the Extracted folder of Eclipse folder (Check Step 2) , Now launch Eclipse.exe

Name	Date modified	Type	Size
.eclipseextension	3/7/2016 1:32 PM	File folder	
configuration	3/7/2016 1:32 PM	File folder	
dropins	2/18/2016 3:43 AM	File folder	
features	3/4/2016 6:15 PM	File folder	
p2	3/7/2016 1:32 PM	File folder	
plugins	3/4/2016 6:15 PM	File folder	
readme	3/4/2016 6:15 PM	File folder	
.eclipseproduct	3/4/2016 6:04 PM	ECLIPSEPRODUCT...	1 KB
artifacts.xml	3/4/2016 6:04 PM	XML File	271 KB
eclipse.exe	3/4/2016 6:04 PM	Application	313 KB
eclipse.ini	3/4/2016 6:04 PM	Configuration sett...	1 KB
eclipsec.exe	3/4/2016 6:04 PM	Application	25 KB

This PC ▶ Local Disk (C:) ▶ Eclipse ▶ eclipse

After launching eclipse.exe system will show pop up asking about selecting work space , keep default or select the folder where you want store all your projects. Click on Ok Button You will receive below screen now **Right Click** on project and select **"Properties"** available under project explorer window shown below.
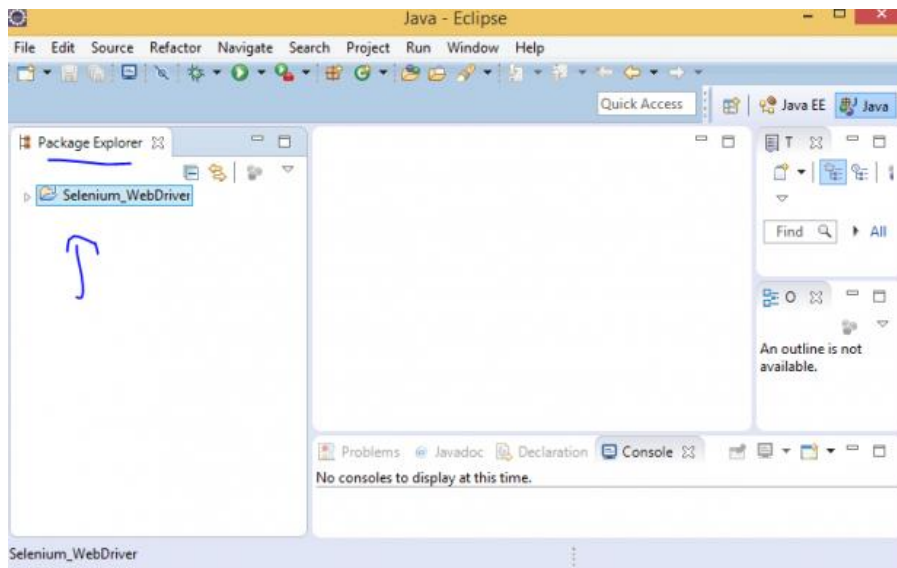
After clicking on properties system will display project property window as shown below
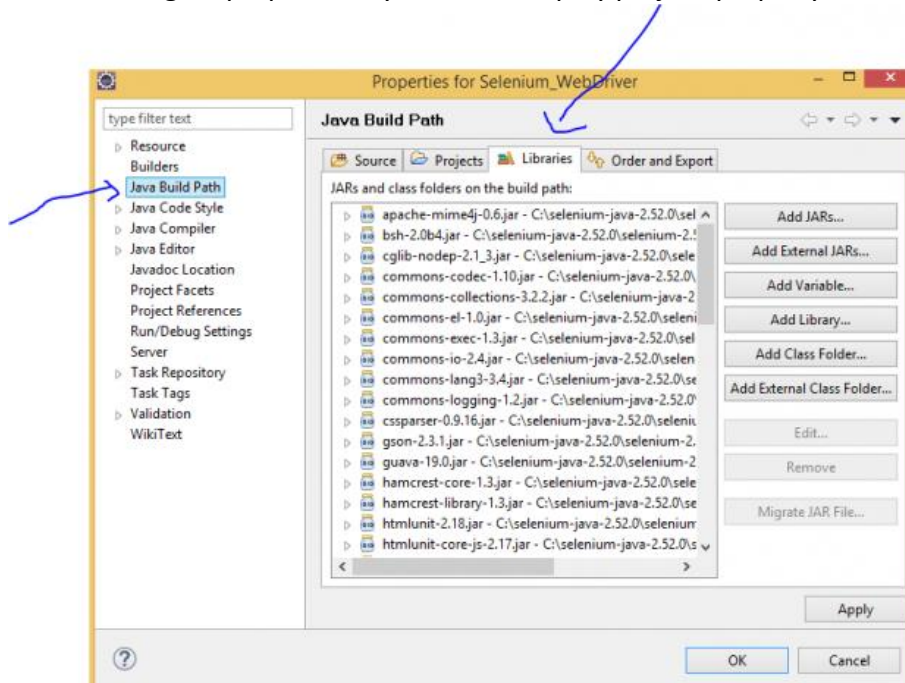
Click on Java Build path -> Select Tab "Libraries" ... Then Click on Add External JARs
And open extracted folder of selenium java drivers (Refer step 3) ...
Now select all JAR file inside and out side lib folder.
click on Apply and Ok...
Now you are ready to use Eclipse to automate application running on Internet
Explorer using selenium WebDriver.

TEST SCRIPTS AND SCREENSHOTS

REGISTERING A NEW DONOR

```
package bloodBank;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

public class doner {

        public static void main(String[] args) {

                System.setProperty("webdriver.chrome.driver",
"C:\\Users\\Lenovo\\Desktop\\New

 folder\\chromedriver_win32\\chromedriver.exe");

                WebDriver driver = new ChromeDriver();

driver.get("http://localhost/bloodbank%20and%20donar%20management%

20system/bbdms/become-donar.php");

                driver.manage().window().maximize();

                driver.findElement(By.id("fname")).sendKeys("mm");

                driver.findElement(By.id("mob")).sendKeys("9876543210");

                driver.findElement(By.id("mail")).sendKeys("manjima@gmail.com");

                driver.findElement(By.id("age")).sendKeys("25");

                driver.findElement(By.id("add")).sendKeys("Noorumparayil");

                driver.findElement(By.id("msg")).sendKeys("none");

                driver.findElement(By.id("gn")).sendKeys("Female");

                driver.findElement(By.id("bg")).sendKeys("A+");

                driver.findElement(By.id("btn")).click();

                String e= driver.findElement(By.className("succWrap")).getText();
```

```java
        String f= "SUCCESS:Your info submitted successfully";

        if(e.equalsIgnoreCase(f))

        {

                System.out.println("Doner  Submit Test Succesfully Completed");

        }

        else

        {

                System.out.println("Test  Not  Successfull");

        }

        //driver.close();

    }

}
```
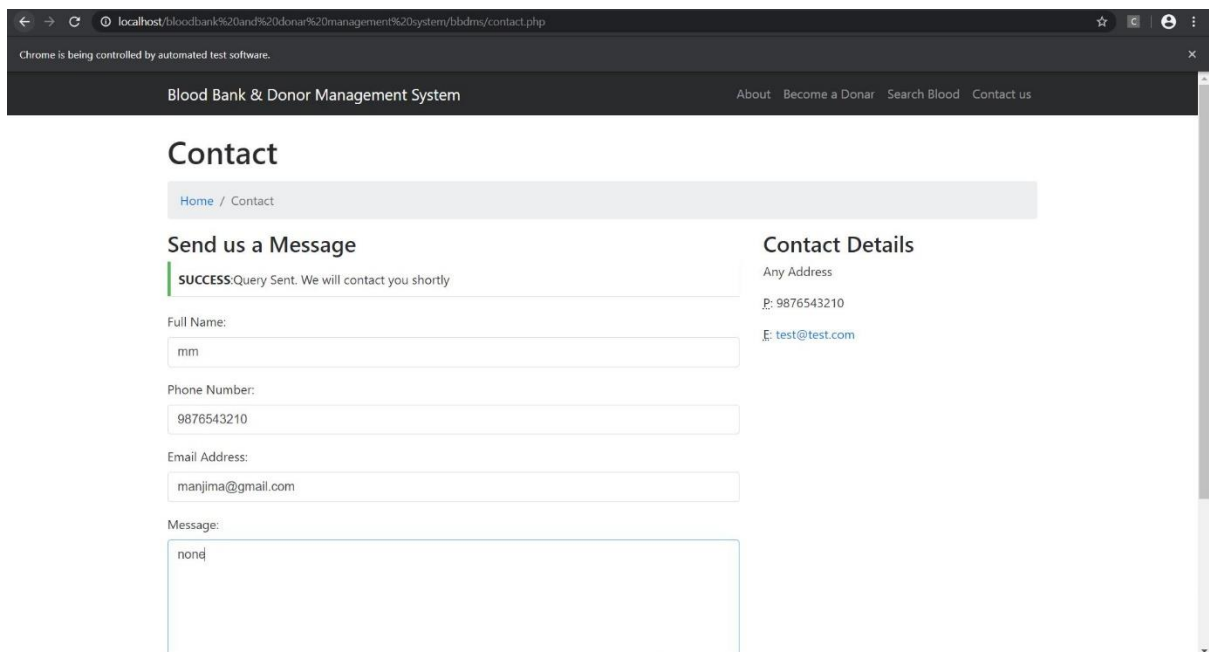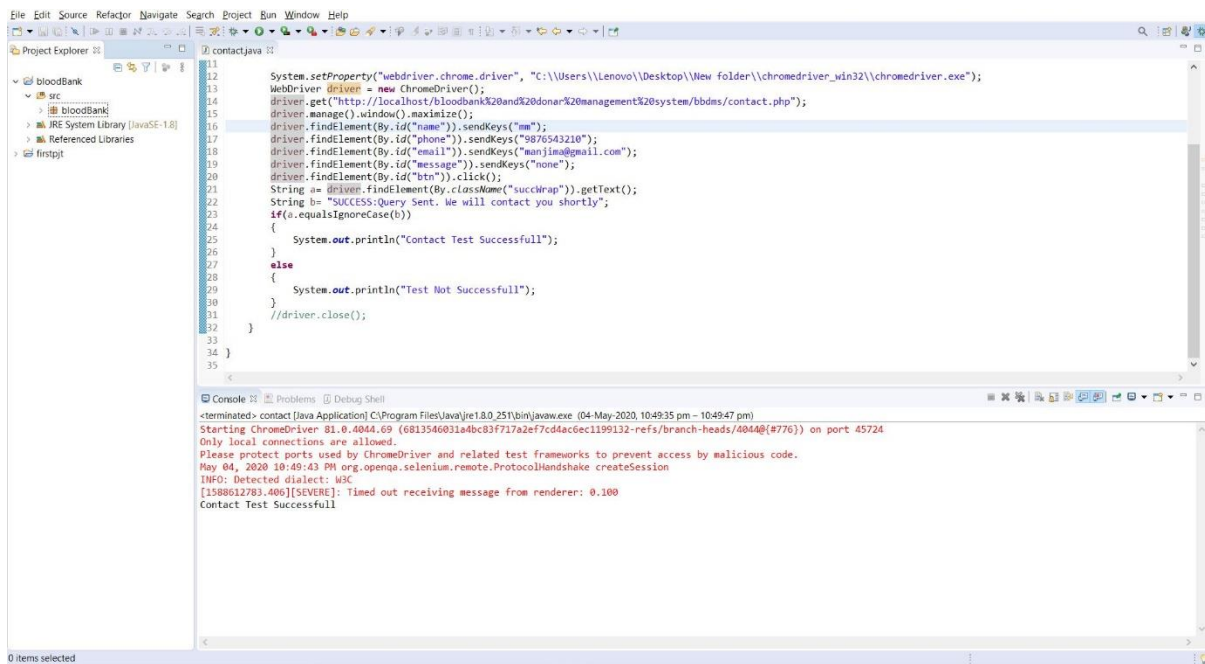
SEARCH BLOOD

package bloodBank;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

public class search {

      public static void main(String[] args) {

          System.setProperty("webdriver.chrome.driver",
"C:\\Users\\Lenovo\\Desktop\\New

folder\\chromedriver_win32\\chromedriver.exe");

          WebDriver driver = new ChromeDriver();

driver.get("http://localhost/bloodbank%20and%20donar%20management%

20system/bbdms/search-donor.php");

          driver.manage().window().maximize();

          driver.findElement(By.id("opt")).sendKeys("A+");

          driver.findElement(By.id("btn")).click();

          String e=driver.findElement(By.id("row1")).getText();

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```java
String f= "No Record Found";

if(e.equalsIgnoreCase(f))

{

        System.out.println("Test  Not Successfull");

}

else

{       System.out.println("Search  Test Succesfully Completed");


}

//driver.close();

    }

}
```
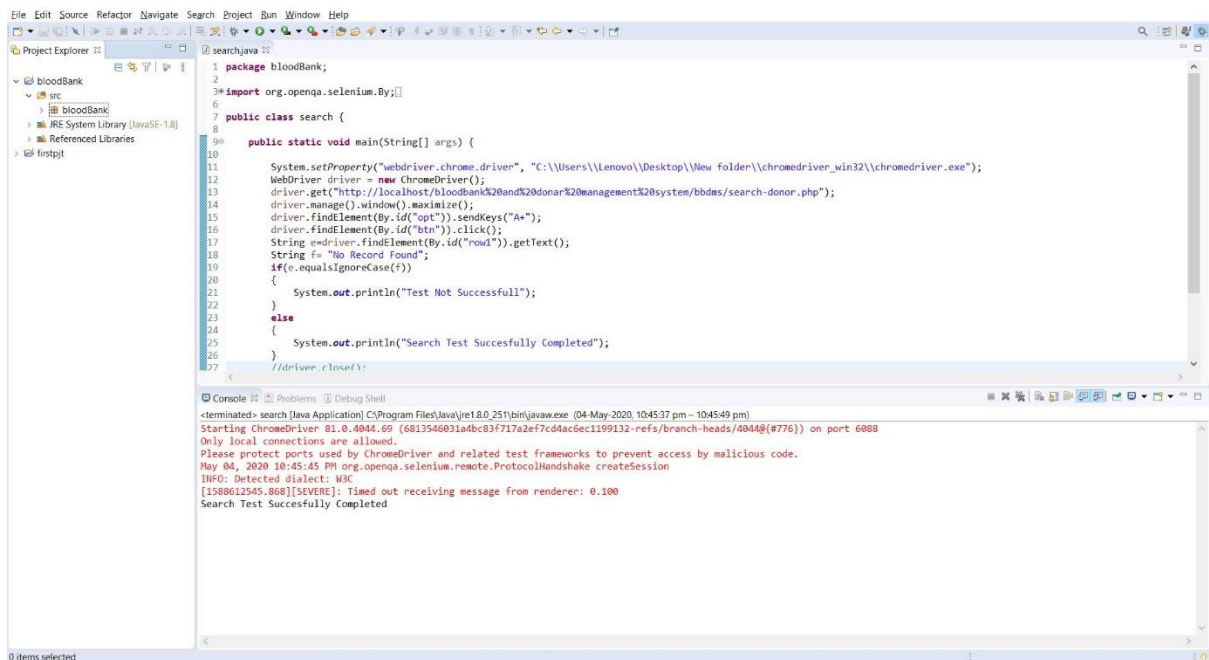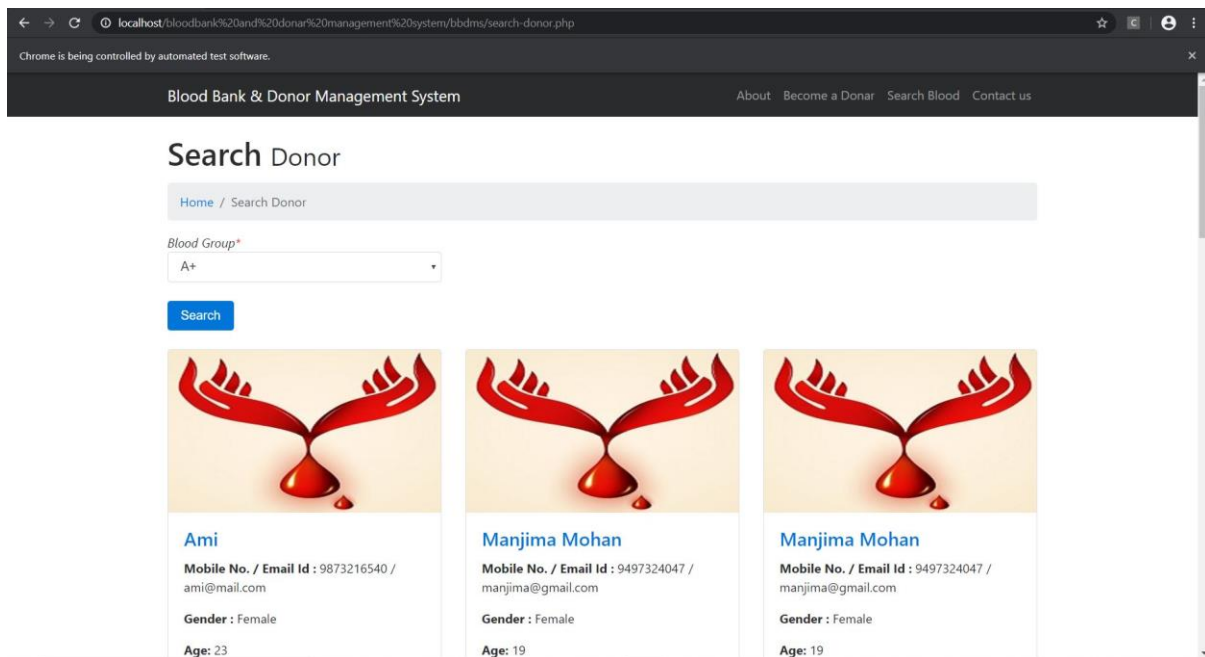
CONTACT TESTING

package bloodBank;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

public class contact {

      public static void main(String[] args) {

          System.setProperty("webdriver.chrome.driver",
"C:\\Users\\Lenovo\\Desktop\\New

folder\\chromedriver_win32\\chromedriver.exe");

          WebDriver driver = new ChromeDriver();

driver.get("http://localhost/bloodbank%20and%20donar%20management%

20system/bbdms/contact.php");

          driver.manage().window().maximize();

          driver.findElement(By.id("name")).sendKeys("mm");

          driver.findElement(By.id("phone")).sendKeys("9876543210");

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```
driver.findElement(By.id("email")).sendKeys("manjima@gmail.com");

driver.findElement(By.id("message")).sendKeys("none");

driver.findElement(By.id("btn")).click();

String a= driver.findElement(By.className("succWrap")).getText();

String b= "SUCCESS:Query Sent. We will contact you shortly";

if(a.equalsIgnoreCase(b))

{       System.out.println("Contact  Test Successfull");

}

else

{

        System.out.println("Test  Not Successfull");

}

driver.close();

    }

}
```
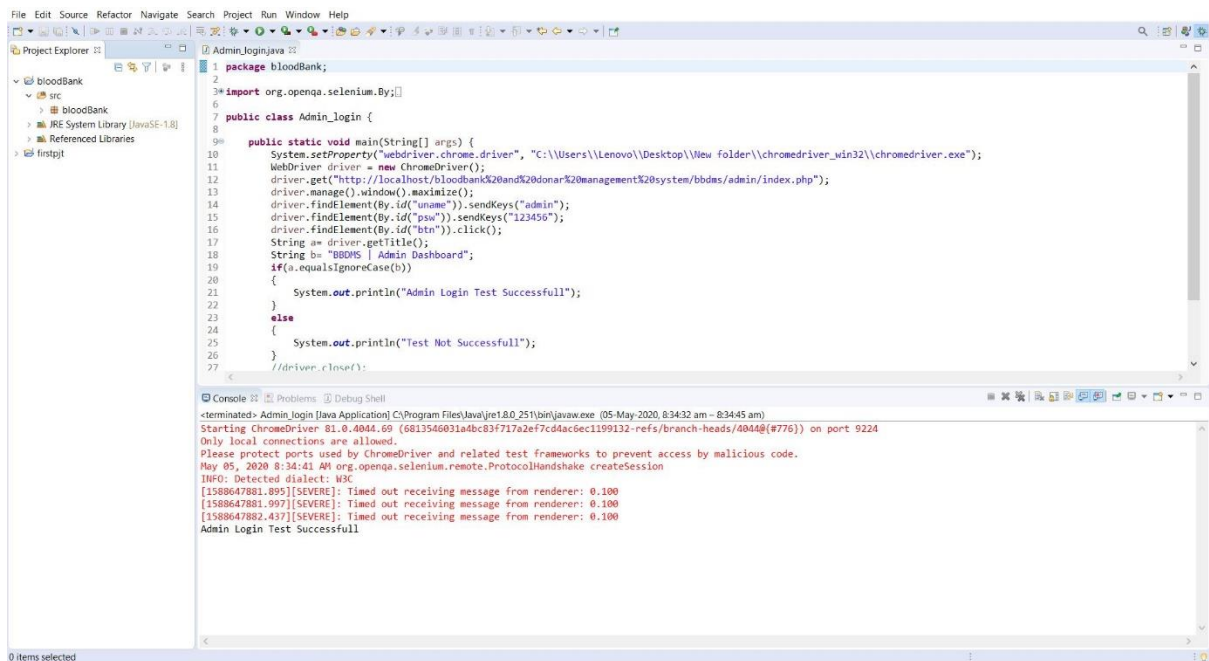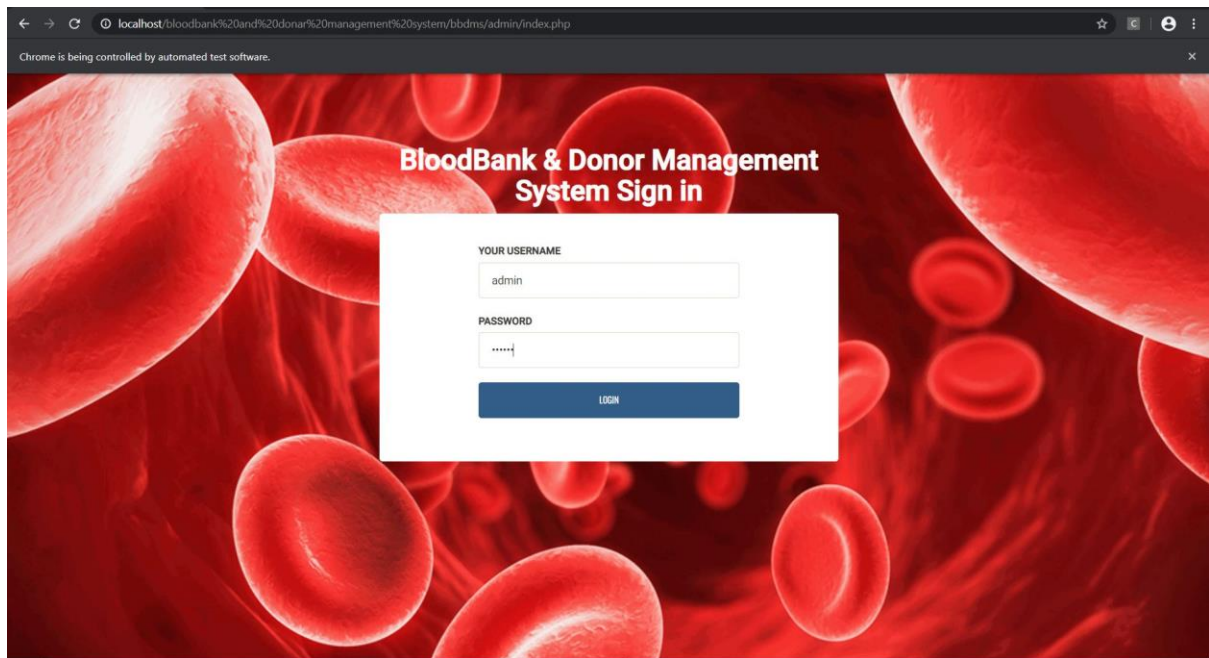
ADMIN LOGIN TEST

package bloodBank;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

public class Admin_login {

    public static void main(String[] args) {

    System.setProperty("webdriver.chrome.driver","C:\\Users\\Lenovo\\Desktop\\

        New
        folder\\chromedriver_win32\\chromedriver.exe");

    WebDriver driver = new ChromeDriver();

    driver.get("http://localhost/bloodbank%20and%20donar%20management%

```
                                    20system/bbdms/admin/index.php");

        driver.manage().window().maximize();

        driver.findElement(By.id("uname")).sendKeys("admin");

        driver.findElement(By.id("psw")).sendKeys("123456");

        driver.findElement(By.id("btn")).click();

        String a= driver.getTitle();

        String b= "BBDMS | Admin Dashboard";

        if(a.equalsIgnoreCase(b))

        {

                System.out.println("Admin  Login Test Successfull");

        }

        else

        {

                System.out.println("Test  Not Successfull");

        }

        //driver.close();


    }

}
```
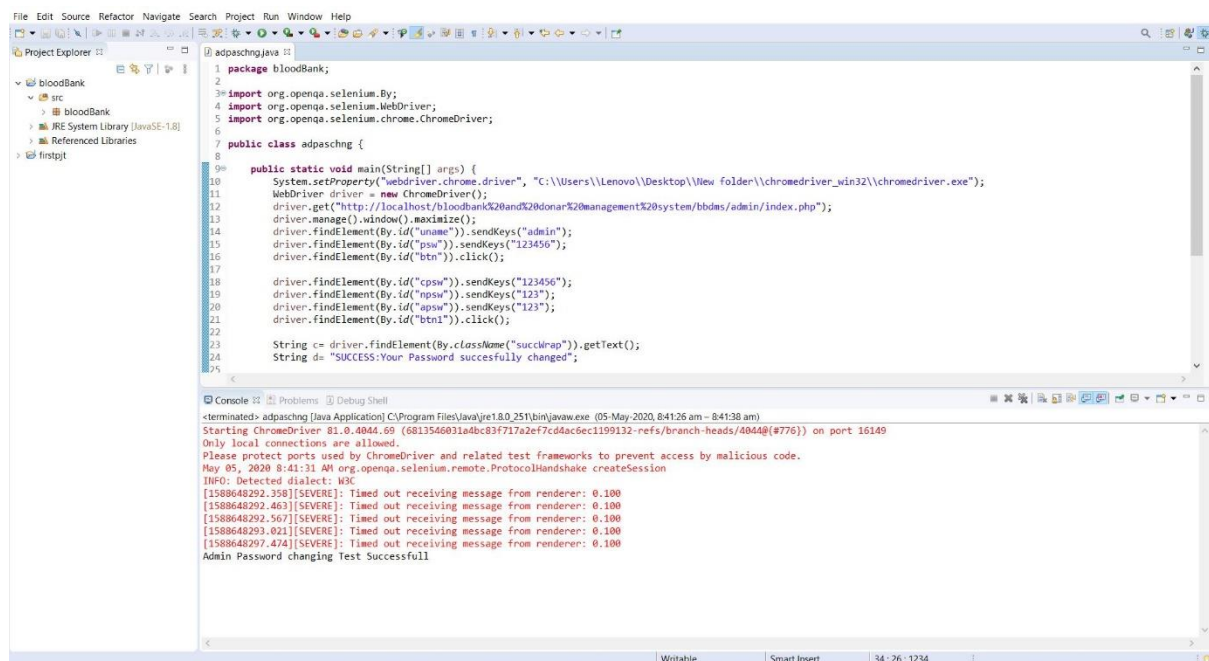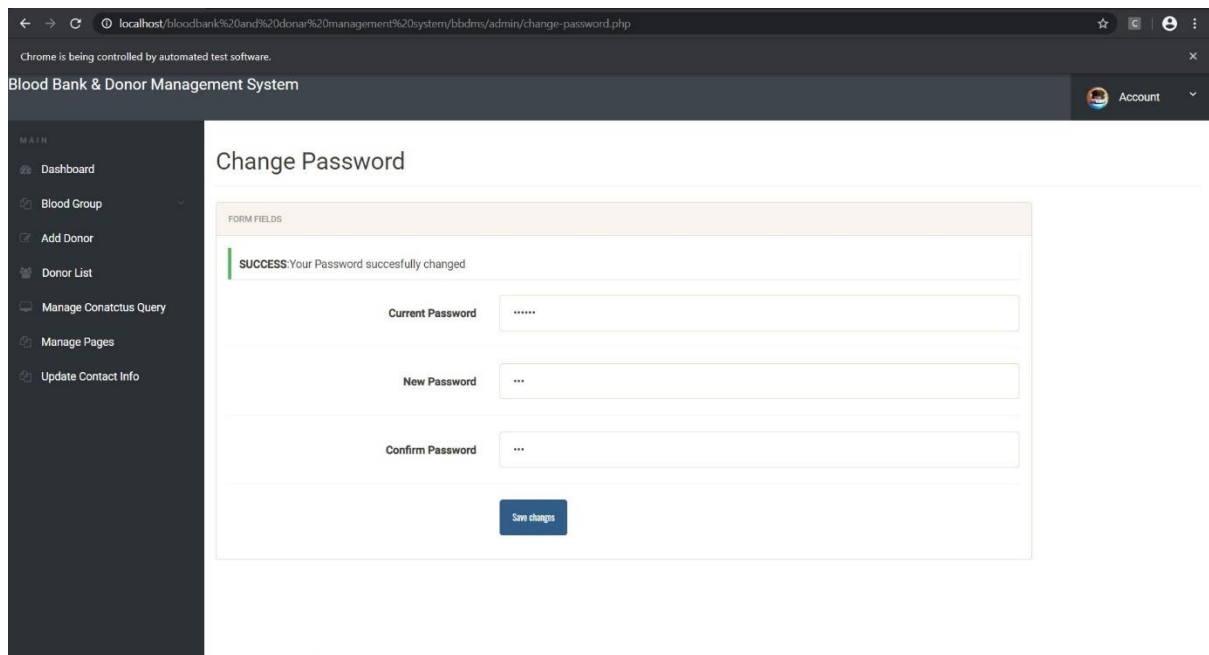
ADMIN CHANGE PASSWORD

package bloodBank;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

public class adpaschng {

```java
public static void main(String[] args) {

    System.setProperty("webdriver.chrome.driver","C:\\Users\\Lenovo\\Desktop\\
    New folder\\chromedriver_win32\\chromedriver.exe");
            WebDriver driver = new ChromeDriver();
    driver.get("http://localhost/bloodbank%20and%20donar%20management%
    20system/bbdms/admin/index.php");
            driver.manage().window().maximize();
            driver.findElement(By.id("uname")).sendKeys("admin");
            driver.findElement(By.id("psw")).sendKeys("123456");
            driver.findElement(By.id("btn")).click();
            driver.findElement(By.id("cpsw")).sendKeys("123456");
            driver.findElement(By.id("npsw")).sendKeys("123");
            driver.findElement(By.id("apsw")).sendKeys("123");
            driver.findElement(By.id("btn1")).click();
            String c= driver.findElement(By.className("succWrap")).getText();
            String d= "SUCCESS:Your Password succesfully changed";
            if(c.equalsIgnoreCase(d))
            {
                    System.out.println("Admin  Password changing Test Successfull");
            }
            else
            {
                    System.out.println("Test  Not Successfull");
            }
```

```
                //driver.close();


        }


}
```

DASHBOARD

```java
package bloodBank;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

public class dash {

        public static void main(String[] args) {

                System.setProperty("webdriver.chrome.driver",
"C:\\Users\\Lenovo\\Desktop\\

New folder\\chromedriver_win32\\chromedriver.exe");

                WebDriver driver = new ChromeDriver();

driver.get("http://localhost/bloodbank%20and%20donar%20management%

20system/bbdms/admin/index.php");

                driver.manage().window().maximize();

                driver.findElement(By.id("uname")).sendKeys("admin");

                driver.findElement(By.id("psw")).sendKeys("123456");

                driver.findElement(By.id("btn")).click();

                driver.findElement(By.id("dash")).click();

                String e= driver.getTitle();

                String f= "BBDMS | Admin Dashboard";

                //driver.close();

                if(e.equalsIgnoreCase(f))

                {

                        System.out.println("Test admin dashboard Successfull");

                }

                else
```

```java
{
        System.out.println("Test  Not Successfull");

}

driver.findElement(By.id("dash")).click();

driver.findElement(By.id("lbg")).click();

String a= driver.getTitle();

String b= "BBDMS | Admin Manage Blood groups";

if(a.equalsIgnoreCase(b))

{
        System.out.println("Test  List of RBG Successfull");

}

else

{
        System.out.println("Test  Not Successfull");

}

driver.findElement(By.id("dash")).click();

driver.findElement(By.id("rgb")).click();

String c= driver.getTitle();

String d= "BBDMS |Admin Manage Queries";

if(c.equalsIgnoreCase(d))

{
        System.out.println("Test  List of RBG Successfull");

}

else

{
        System.out.println("Test  Not Successfull");
```
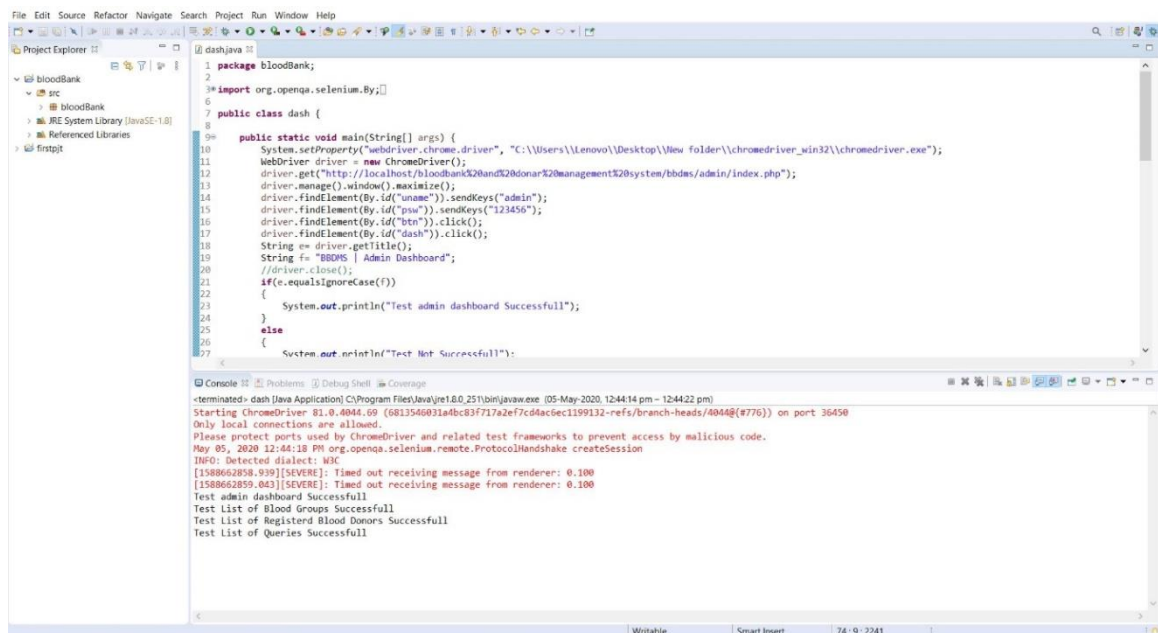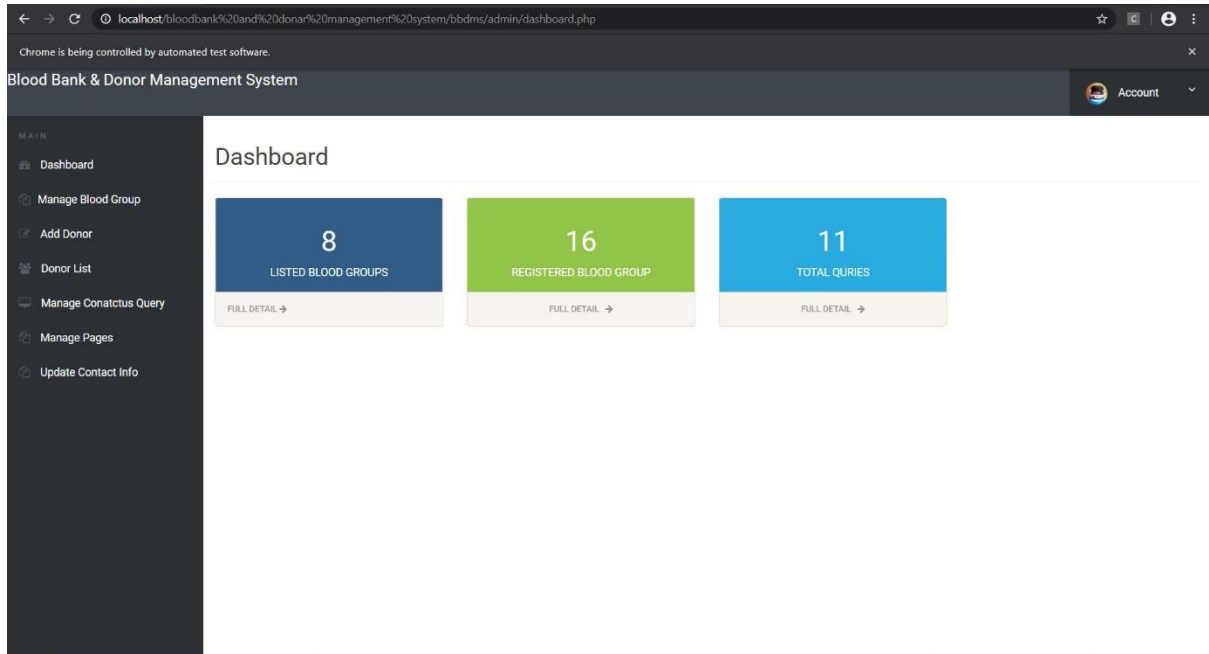
```java
        }

        driver.findElement(By.id("dash")).click();

        driver.findElement(By.id("total")).click();

        String g= driver.getTitle();

        String h= "BBDMS |Admin Manage Queries";

        if(g.equalsIgnoreCase(h))

        {

                System.out.println("Test List of Queries Successfull");

        }

        else

        {

                System.out.println("Test Not Successfull");

        }

        driver.close();

    }

}
```

MANAGE BLOOD GROUPS

package bloodBank;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

public class manage {

```
public static void main(String[] args) {

    System.setProperty("webdriver.chrome.driver","C:\\Users\\Lenovo\\Desktop\\
```

New folder\\chromedriver_win32\\chromedriver.exe");

```
        WebDriver driver = new ChromeDriver();
```

driver.get("http://localhost/bloodbank%20and%20donar%20management%

20system/bbdms/admin/dashboard.php");

```
        driver.manage().window().maximize();

        driver.findElement(By.id("uname")).sendKeys("admin");
```

```
driver.findElement(By.id("psw")).sendKeys("123456");

driver.findElement(By.id("btn")).click();

driver.findElement(By.id("man")).click();

String a= driver.getTitle();

String b= "BBDMS | Admin Manage Blood groups";

if(a.equalsIgnoreCase(b))

{

        System.out.println("Test  List of Blood Groups Successfull");

}

else

{

        System.out.println("Test  Not Successfull");

}


driver.close();

    }

}
```
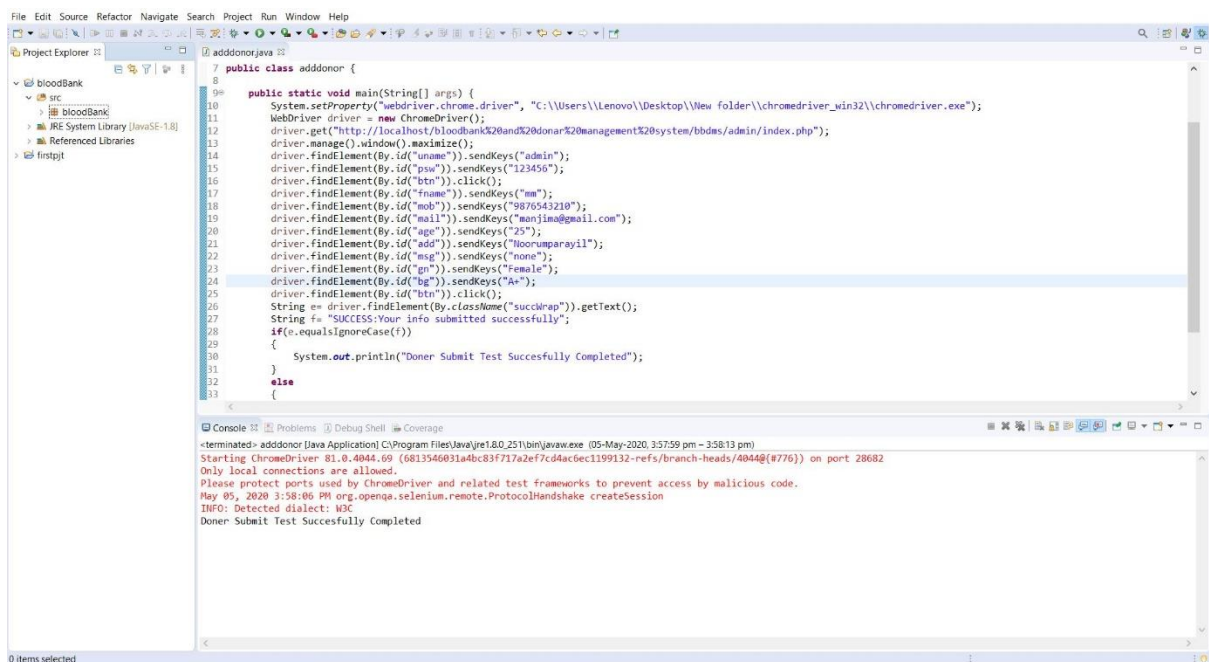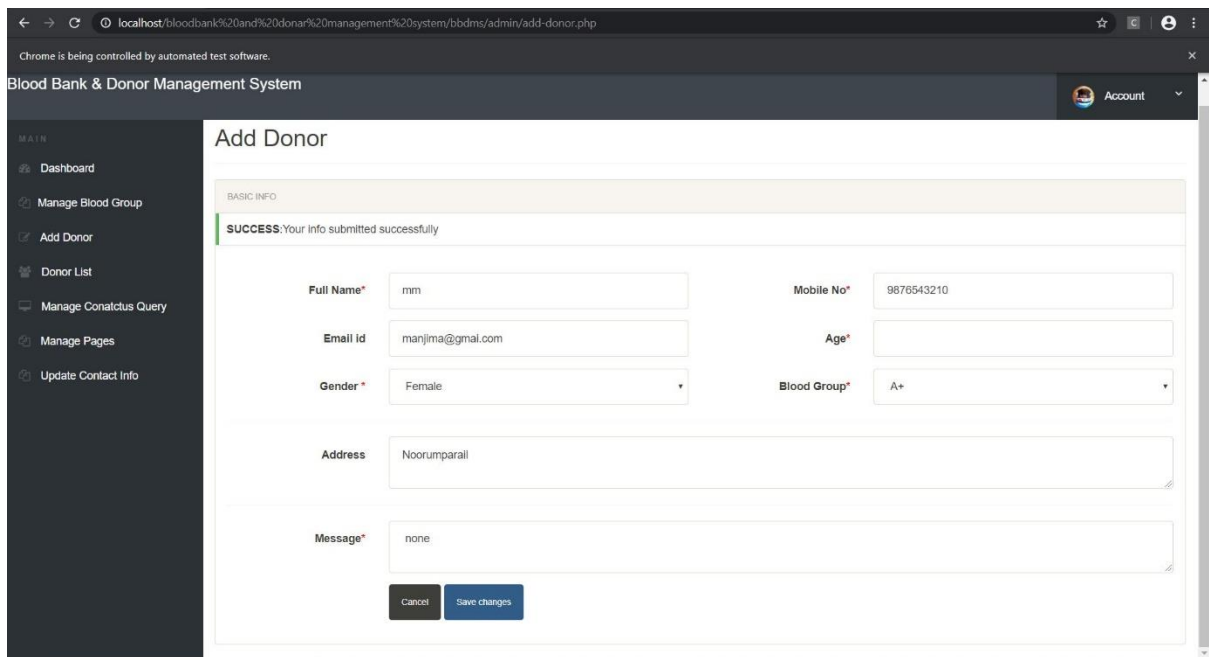
ADD DONOR

package bloodBank;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

public class adddonor {

  public static void main(String[] args) {

    System.setProperty("webdriver.chrome.driver",

"C:\\Users\\Lenovo\\Desktop\\

New folder\\chromedriver_win32\\chromedriver.exe");

    WebDriver driver = new ChromeDriver();

driver.get("http://localhost/bloodbank%20and%20donar%20management%20system

/bbdms/admin/index.php");

    driver.manage().window().maximize();

    driver.findElement(By.id("uname")).sendKeys("admin");

```java
driver.findElement(By.id("psw")).sendKeys("123456");

driver.findElement(By.id("btn")).click();

driver.findElement(By.id("fname")).sendKeys("mm");

driver.findElement(By.id("mob")).sendKeys("9876543210");

driver.findElement(By.id("mail")).sendKeys("manjima@gmail.com");

driver.findElement(By.id("age")).sendKeys("25");

driver.findElement(By.id("add")).sendKeys("Noorumparayil");

driver.findElement(By.id("msg")).sendKeys("none");

driver.findElement(By.id("gn")).sendKeys("Female");

driver.findElement(By.id("bg")).sendKeys("A+");

driver.findElement(By.id("btn")).click();

String e= driver.findElement(By.className("succWrap")).getText();

String f= "SUCCESS:Your info submitted successfully";

if(e.equalsIgnoreCase(f))

{

        System.out.println("Doner  Submit Test Succesfully Completed");

}

else

{

        System.out.println("Test  Not Successfull");

}


        //driver.close();

    }

}
```

DONOR LIST

package bloodBank;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

public class donorlist {

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```java
        public static void main(String[] args) {

                System.setProperty("webdriver.chrome.driver",
"C:\\Users\\Lenovo\\Desktop\\

New folder\\chromedriver_win32\\chromedriver.exe");

                WebDriver driver = new ChromeDriver();

driver.get("http://localhost/bloodbank%20and%20donar%20management%

20system/bbdms/admin/index.php");

                driver.manage().window().maximize();

                driver.findElement(By.id("uname")).sendKeys("admin");

                driver.findElement(By.id("psw")).sendKeys("123456");

                driver.findElement(By.id("btn")).click();

                driver.findElement(By.id("do")).click();

                String e= driver.getTitle();

                String f= "BBDMS | Donor List";

                //driver.close();

                if(e.equalsIgnoreCase(f))

                {

                        System.out.println("Test Donor List Successfull");

                }

                else

                {

                        System.out.println("Test Not Successfull");

                }

        }


}
```
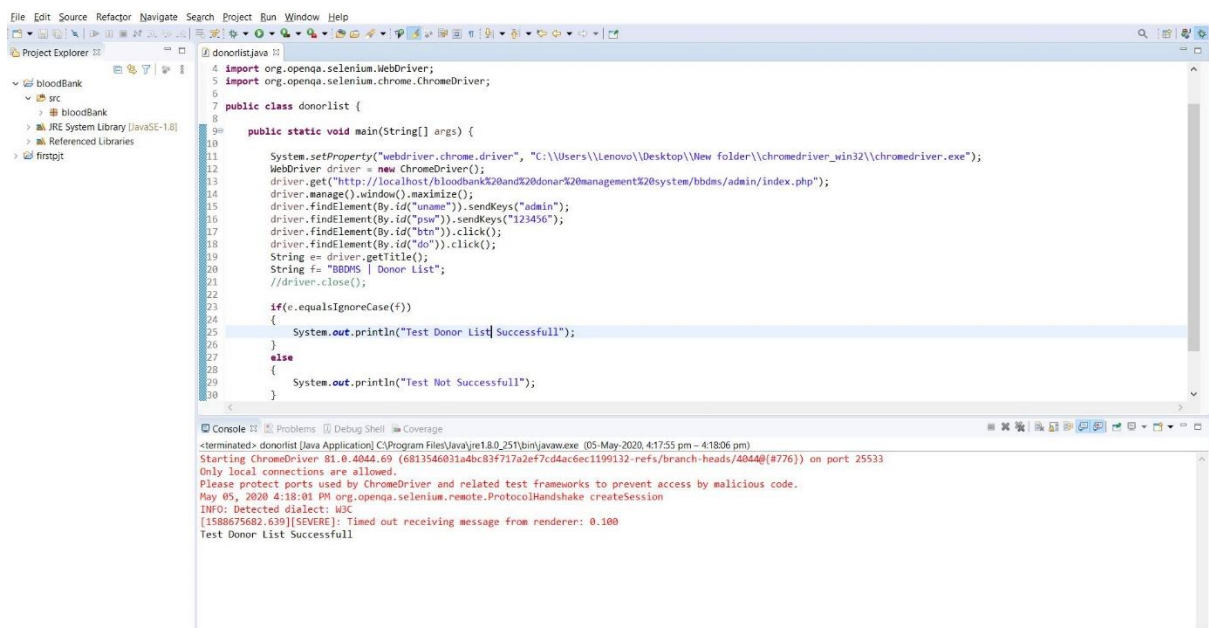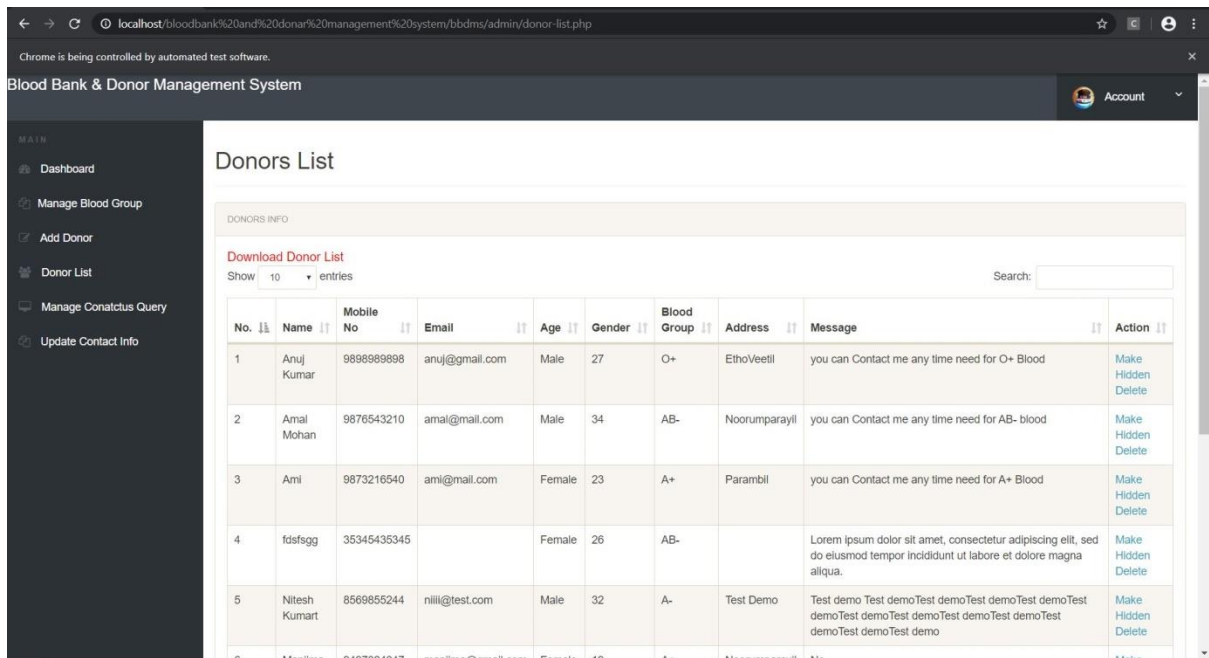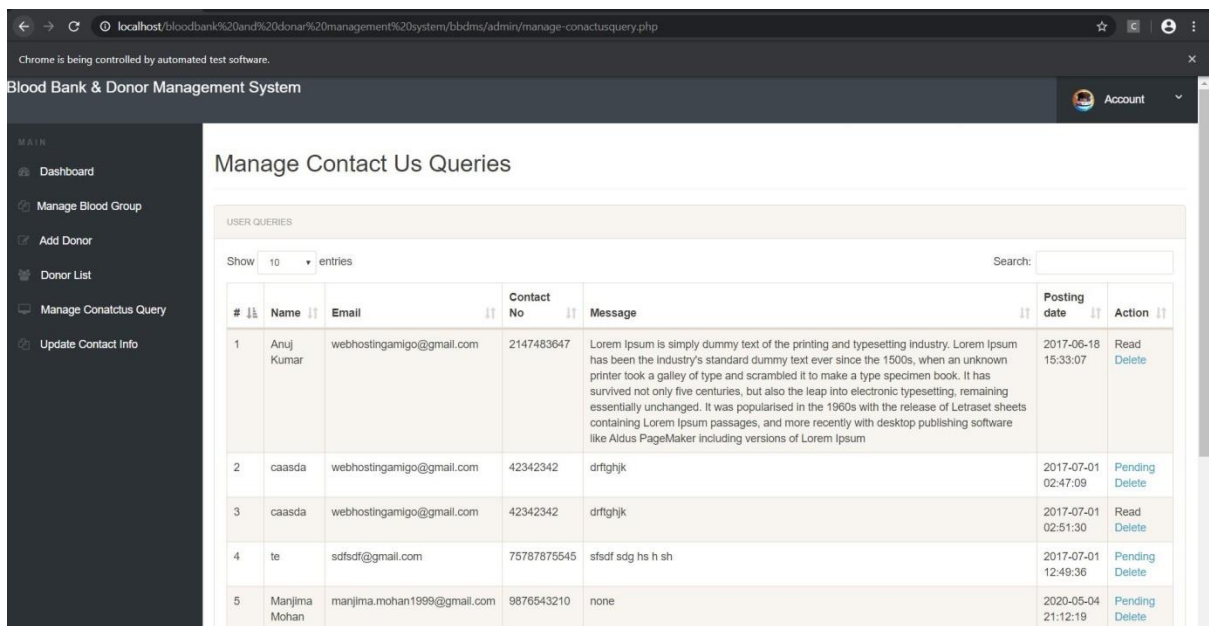
MANAGE QUERIES

package bloodBank;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

public class mngcnt {

```java
public static void main(String[] args) {

        System.setProperty("webdriver.chrome.driver",
"C:\\Users\\Lenovo\\Desktop\\

New folder\\chromedriver_win32\\chromedriver.exe");

        WebDriver driver = new ChromeDriver();

driver.get("http://localhost/bloodbank%20and%20donar%20management%
20system/bbdms/admin/index.php");

        driver.manage().window().maximize();

        driver.findElement(By.id("uname")).sendKeys("admin");

        driver.findElement(By.id("psw")).sendKeys("123456");

        driver.findElement(By.id("btn")).click();

        driver.findElement(By.id("con")).click();

        String e= driver.getTitle();

        String f= "BBDMS |Admin Manage Queries";

        //driver.close();


        if(e.equalsIgnoreCase(f))

        {

                System.out.println("Test Manage Queries Successfull");

        }

        else

        {

                System.out.println("Test Not Successfull");

        }

    }}
```

UPDATE CONTACT

package bloodBank;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

public class update {

```java
    public static void main(String[] args) {

            System.setProperty("webdriver.chrome.driver",
"C:\\Users\\Lenovo\\Desktop\\

New folder\\chromedriver_win32\\chromedriver.exe");

            WebDriver driver = new ChromeDriver();

driver.get("http://localhost/bloodbank%20and%20donar%20management%20system/

bbdms/admin/index.php");

            driver.manage().window().maximize();

            driver.findElement(By.id("uname")).sendKeys("admin");

            driver.findElement(By.id("psw")).sendKeys("123456");

            driver.findElement(By.id("btn")).click();

            driver.findElement(By.id("up")).click();

            driver.findElement(By.id("address")).clear();

            driver.findElement(By.id("email")).clear();

            driver.findElement(By.id("contactno")).clear();

            driver.findElement(By.id("address")).sendKeys("Noorumparayil");

            driver.findElement(By.id("email")).sendKeys("manjima@gmail.com");

            driver.findElement(By.id("contactno")).sendKeys("9207857719");

            driver.findElement(By.id("btn")).click();

            String e= driver.findElement(By.className("succWrap")).getText();

            String f= "SUCCESS:Info Updateed succesfully";

            if(e.equalsIgnoreCase(f))

            {

                    System.out.println("Contact  Update Test Succesfully Completed");

            }

            else
```

```
                {
                        System.out.println("Test  Not Successfull");

                }

        }

}
```