

```

String browser = "chrome";

if (browser.equalsIgnoreCase("chrome")) {
    driver = new ChromeDriver();
} else if (browser.equalsIgnoreCase("edge")) {
    driver = new EdgeDriver();
} else if (browser.equalsIgnoreCase("firefox")) {
    driver = new FirefoxDriver();
} else {
    System.out.println("Browser not supported : " + browser);
    return;
}

```

Method channing remove karanawa tc ekan

```

PageObjectModel_Learning_YouTube D:\PageObjectModel_
> .idea
> src
  > main
    > java
      > functions
        < NewtoursCommonFunctions
      > pages
        < HomePageUpdated
        < RegisterPageUpdated
        < RegisterSuccessPageUpdated
    > resources
  > test
    > java
      > testCases
        < TC001_RegisterUserTestUpdated
    > resources
> target
> test-output
> xmlPlans
  < QA_Reg_ModuleA_Plan1.xml
  .gitignore
  pom.xml
External Libraries
Scratches and Consoles

PageObjectModel_Learning_YouTube D:\PageObjectModel_
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@BeforeMethod
public void openPage(){
    driver = new ChromeDriver();
    driver.manage().window().maximize();
    driver.manage().timeouts().implicitlyWait(Duration.ofSeconds(10));
    driver.get("https://demo.guru99.com/test/newtours/index.php");
}

@Test
public void TC001(){

    HomePageUpdated homePage = new HomePageUpdated(driver);
    homePage.selectRegisterMenu();

    RegisterPageUpdated registerPage = new RegisterPageUpdated(driver);
    System.out.println("1");
    registerPage.setFirstName("Mohamed");
    registerPage.setLastName("Hashir");
    registerPage.setEmail("hashirhasmy11@gmail.com");
    registerPage.selectCountry();
    registerPage.setUserName("Mhashir");
    registerPage.setPassword("test123");
    registerPage.setConfirmPassword("test123");
    registerPage.submit();

    RegisterSuccessPageUpdated registerSuccessPage = new RegisterSuccessPageUpdated(driver);
    String ActualText = registerSuccessPage.registerSuccessText();
    Assert.assertTrue(ActualText.contains("Dear"), message: "Registration Attempt failed");
}

@AfterMethod
public void closeBrowser(){
    driver.quit();
}

```

eth thama pages wala me

changing ekan return karana ewa teyenawa.

Ape lap eke teyenawa memory space ekak.eke eda yanawa object create karana ganata.

New key word ekan thamai object hadanne

Ethakota methana object 3kak haduna nisa space 3k use kara.

```

public void openPage(){
    driver = new ChromeDriver();
    driver.manage().window().maximize();
    driver.manage().timeouts().implicitlyWait(Duration.ofSeconds(10));
    driver.get("https://demo.guru99.com/test/newtours/index.php");
}

@Test
public void TC001(){

    HomePageUpdated homePage = new HomePageUpdated(driver); ①
    homePage.selectRegisterMenu();

    RegisterPageUpdated registerPage = new RegisterPageUpdated(driver); ②
    registerPage.setFirstName("Mohamed");
    registerPage.setLastName("Hashir");
    registerPage.setEmail("hashirhasmy11@gmail.com");
    registerPage.selectCountry();
    registerPage.setUserName("Mhashir");
    registerPage.setPassword("test123");
    registerPage.setConfirmPassword("test123");
    registerPage.submit();

    RegisterSuccessPageUpdated registerSuccessPage = new RegisterSuccessPageUpdated(driver); ③
    String ActualText = registerSuccessPage.registerSuccessText();
    Assert.assertTrue(ActualText.contains("Dear"), message: "Registration Attempt failed");
}

@AfterMethod
public void closeBrowser(){
    driver.quit();
}

```

Meka below homepageupdate class ekath new object ekak hadila teyenawa. Eka nisa object count +1 wenawa.

Number 1 ekath object ekak hadala teyenawa . eta passe number 2 ekath homepageupdate eke Picture 2 eke teyenawa wage thawa object ekak hadala teyenawa.ekata thawa memerry space eka enawa .(Object 4)

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PageObjectModel_Learning_YouTube D:\PageObjectModel_1
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```

8 usages  
WebDriver driver;

@BeforeMethod  
public void openPage(){  
 driver = new ChromeDriver();  
 driver.manage().window().maximize();  
 driver.manage().timeouts().implicitlyWait(Duration.ofSeconds(10));  
 driver.get("https://demo.guru99.com/test/newtours/index.php");  
}

@Test  
public void TC001(){  
  
 HomePageUpdated homePage = new HomePageUpdated(driver);  
 homePage.selectRegisterMenu(); ②  
  
 RegisterPageUpdated registerPage = new RegisterPageUpdated(driver);  
 registerPage.setFirstName("Mohamed"); ①  
 registerPage.setLastName("Hashir");  
 registerPage.setEmail("hashirhashmy111@gmail.com");  
 registerPage.selectCountry();  
 registerPage.setUserName("Mhashir");  
 registerPage.setPassword("test123");  
 registerPage.setConfirmPassword("test123");  
 registerPage.submit();  
  
 RegisterSuccessPageUpdated registerSuccessPage = new RegisterSuccessPageUpdated(driver);  
 String ActualText = registerSuccessPage.registerSuccessText();  
 Assert.assertTrue(ActualText.contains("Dear"), message: "Registration Attempt failed");  
}  
  
@AfterMethod  
public void closeBrowser(){  
 driver.quit();  
}

Picture 2

```

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```

5 usages  
public class HomePageUpdated {  
  
 2 usages  
 WebDriver driver;  
  
 2 usages  
 public HomePageUpdated(WebDriver driver){  
 this.driver = driver;  
 PageFactory.initElements(driver, page: this); //mandatory  
 }  
  
 //1st way  
 // @FindBy(how = How.LINK\_TEXT, using ="REGISTER")  
 // public WebElement registerBtn\_ele;  
  
 //2nd way  
 2 usages  
 @FindBy(linkText = "REGISTER")  
 public WebElement registerBtn\_ele;  
  
 1 usage  
 public RegisterPageUpdated selectRegisterMenu(){ ①  
 registerBtn\_ele.click(); ②  
 return new RegisterPageUpdated(driver); ③  
 }  
}

Below red highlight thana new object ekak haduve na habai me class return karanna keyala teyenawa.this ekn keyanne e create karapu object ekama return karanna keyala .

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```

java  
functions  
NewtoursCommonFunctions

Pages  
HomePageUpdated  
RegisterPageUpdated  
RegisterSuccessPageUpdated

test  
TC001\_RegisterUserTestUpdated

@FindBy(xpath = "//input[@id='userName']")  
WebElement email\_ele;

1 usage  
@FindBy(xpath = "//select[@name='country']")  
WebElement countrySelect\_ele;

1 usage  
@FindBy(xpath = "//input[@id='email']")  
WebElement userName\_ele;

1 usage  
@FindBy(name = "password")  
WebElement password\_ele;

1 usage  
@FindBy(xpath = "//input[@name='confirmPassword']")  
WebElement confirmPassword\_ele;

1 usage  
@FindBy(xpath = "//input[@name='submit']")  
WebElement submitBtn\_ele;

2 usages  
public RegisterPageUpdated setFirstName(String firstName){  
 firstName\_ele.sendKeys(firstName);  
 return this; ①  
}  
  
2 usages  
public RegisterPageUpdated setLastName(String lastName){  
 lastName\_ele.sendKeys(lastName);  
 return this; ②  
}

2 usages

## Below submit button eka click karama

```
driver.manage().timeouts().implicitlyWait(Duration.ofSeconds(10));
driver.get("https://demo.guru99.com/test/newtours/index.php");

@Test
public void TC001(){
    HomePageUpdated homePage = new HomePageUpdated(driver);
    homePage.selectRegisterMenu();

    RegisterPageUpdated registerPage = new RegisterPageUpdated(driver);
    registerPage.setName("Mohamed");
    registerPage.setLastName("Hashim");
    registerPage.setCountry("UAE");
    registerPage.setUserName("Mohashim");
    registerPage.setPassword("test123");
    registerPage.setConfirmPassword("test123");
    registerPage.click(); // Clicked here

    RegisterSuccessPageUpdated registerSuccessPage = new RegisterSuccessPageUpdated(driver);
    String ActualText = registerSuccessPage.registerSuccessText();
    Assert.assertTrue(ActualText.contains("Dear"), message: "Registration Attempt failed");

    @AfterMethod
    public void closeBrowser(){
        driver.quit();
    }
}
```

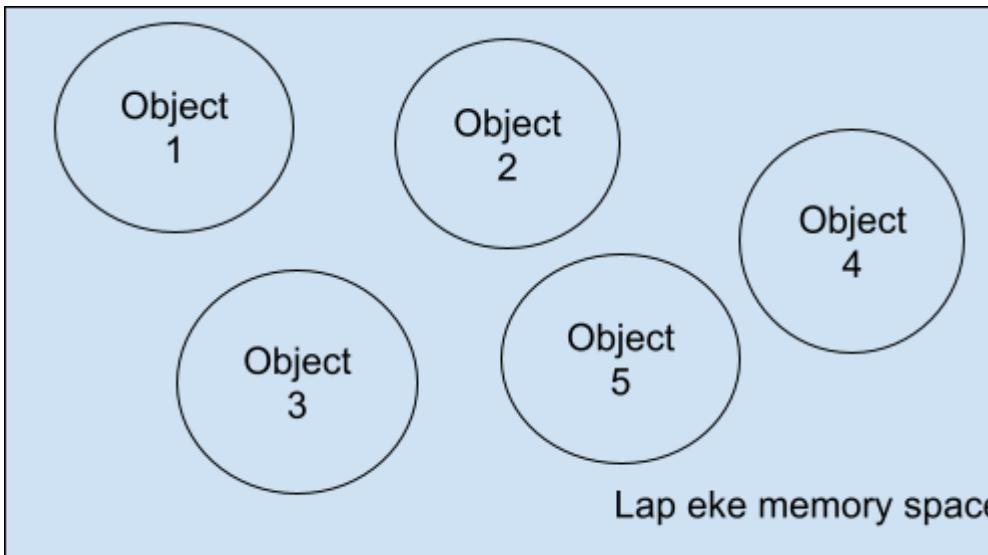
Aith object ekak hadanna keyanwa neh

```
public RegisterPageUpdated setPassword(String password){
    password_ele.sendKeys(password);
    return this;
}

public RegisterPageUpdated setConfirmPassword(String confirmPassword){
    confirmPassword_ele.sendKeys(confirmPassword);
    return this;
}

public RegisterSuccessPageUpdated submit(){
    submitBtn_ele.click();
    return new RegisterSuccessPageUpdated(driver);
}
```

Ekata thawa space ekak enawa . object 5 in picture



Dan hugak objects hadila teyana nisa hugak space gehen teyenawa neh .performance walain awlka wanna puluwan.

Dan lap hoda nisa meka awlk panne na .habai best eka make nawe.

Eka karanne below wage .

```
public HomePageUpdated(WebDriver driver){
    this.driver = driver;
    PageFactory.initElements(driver, page: this); //mandatory
}

//1st way
@FindBy(how = How.LINK_TEXT, using = "REGISTER")
public WebElement registerBtn_ele;

//2nd way
@FindBy(linkText = "REGISTER")
public WebElement registerBtn_ele;

public void selectRegisterMenu(){
    registerBtn_ele.click();
    return new RegisterPageUpdated(driver); //X
}
```

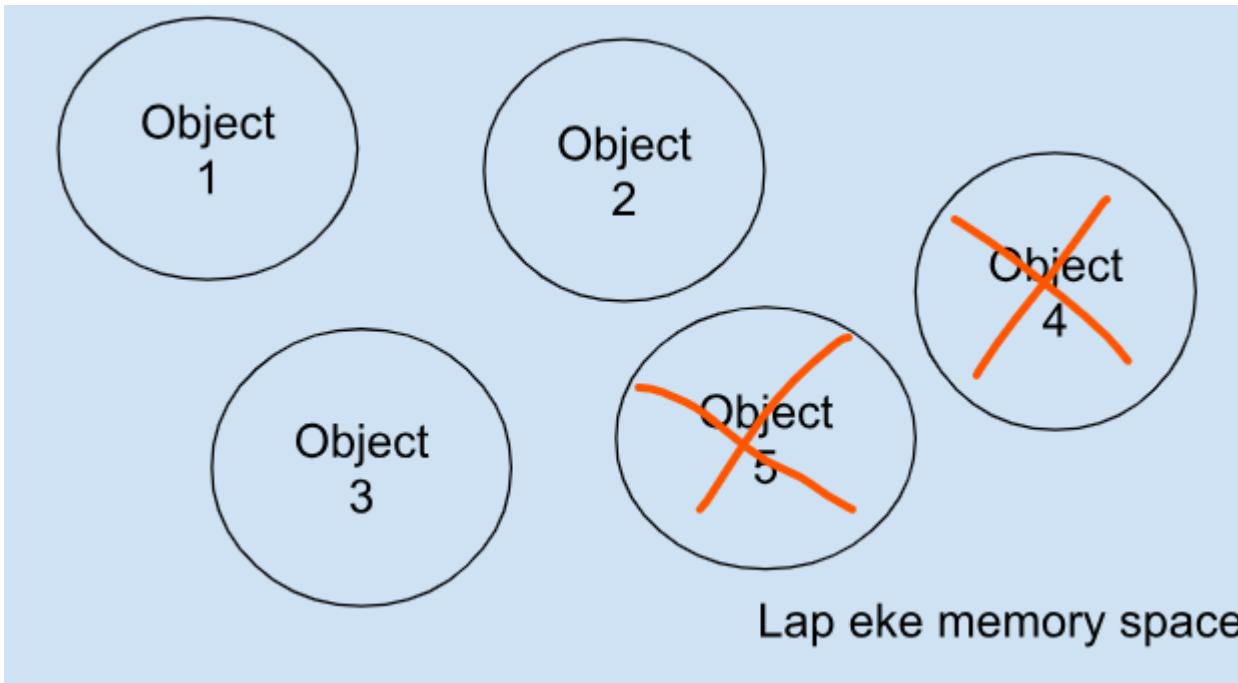
Void keyala dala. Object eka hadapu eka remove karanawa.return karanna ba dan.

Me wage return teka galawala void keyala dagana yanawa.

The screenshot shows a Java code editor with a sidebar containing project files. The code editor displays a method with several usage highlights. A specific line of code, `submitBtn\_ele.click();`, is highlighted with a yellow background and has a mouse cursor hovering over it. The code is as follows:

```
51     2 usages
52     public void setEmail(String email){
53         email_ele.sendKeys(email);
54     }
55     2 usages
56     public void selectCountry(){
57         Select dropDownCountry = new Select(countrySelect_ele);
58         dropDownCountry.selectByIndex(2);
59     }
60     2 usages
61     public void setUserName(String userName){
62         userName_ele.sendKeys(userName);
63     }
64     2 usages
65     public void setPassword(String password){
66         password_ele.sendKeys(password);
67     }
68     2 usages
69     public void setConfirmPassword(String confirmPassword){
70         confirmPassword_ele.sendKeys(confirmPassword);
71     }
72     2 usages
73     public void submit(){
74         submitBtn_ele.click();
75     }
76
77
78
79
```

Dan method chaning eka remove kara.



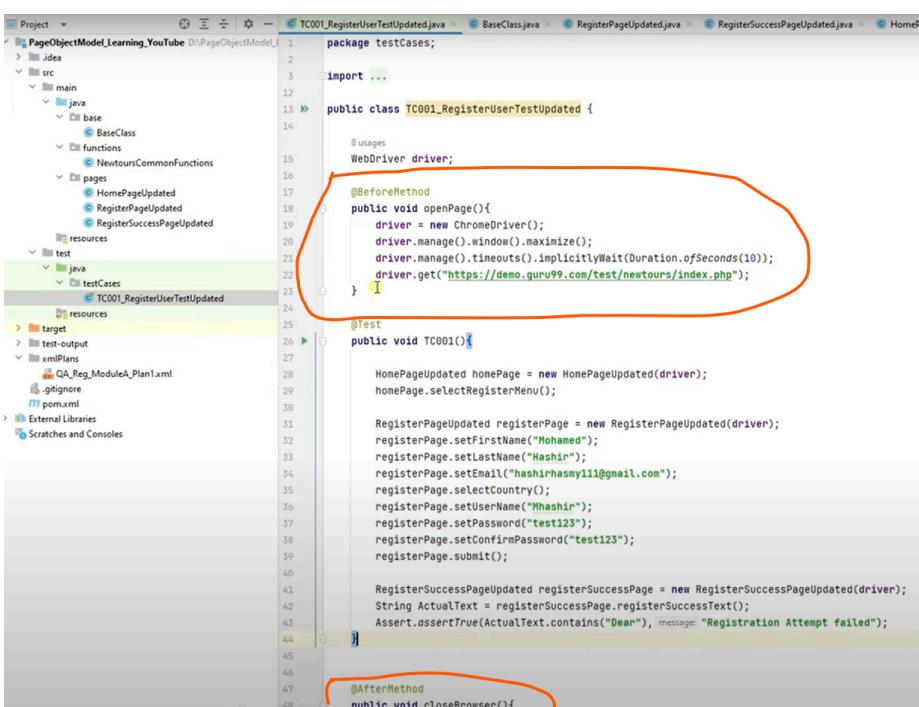
Dan teyanne object 3nai.

# Cross Browser Testing

Src -Main - java - new package - base - eke class ekak hadanna - BaseClass.java

Java wala concept ekak teyenawa inheritance keyala . me baseclass inherit karanawa me test class eke edala .

Beforemethod ekai Aftermethod ekai baseclass ekata danawa.



```
package testCases;

import ...

public class TC001_RegisterUserTestUpdated {

    WebDriver driver;

    @BeforeMethod
    public void openPage(){
        driver = new ChromeDriver();
        driver.manage().window().maximize();
        driver.manage().timeouts().implicitlyWait(Duration.ofSeconds(10));
        driver.get("https://demo.guru99.com/test/newtours/index.php");
    }

    @Test
    public void TC001(){

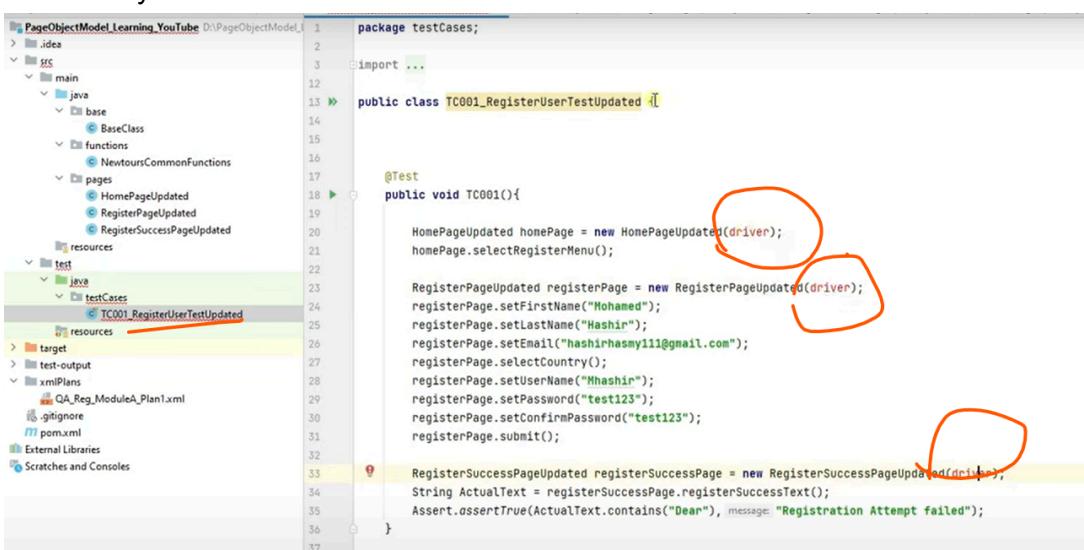
        HomePageUpdated homePage = new HomePageUpdated(driver);
        homePage.selectRegisterMenu();

        RegisterPageUpdated registerPage = new RegisterPageUpdated(driver);
        registerPage.setFirstName("Mohamed");
        registerPage.setLastName("Hashir");
        registerPage.setEmail("hashirhashmy11@gmail.com");
        registerPage.selectCountry();
        registerPage.setUserName("Mhashir");
        registerPage.setPassword("test123");
        registerPage.setConfirmPassword("test123");
        registerPage.submit();

        RegisterSuccessPageUpdated registerSuccessPage = new RegisterSuccessPageUpdated(driver);
        String ActualText = registerSuccessPage.registerSuccessText();
        Assert.assertTrue(ActualText.contains("Dear"), message: "Registration Attempt failed");
    }

    @AfterMethod
    public void closeBrowser(){
    }
}
```

Dan testcase ekata enne. Dan error ekak enawa driver eka na keyala. Driver eka initiate karanne natuwa driver eka pass karala hariyanne na neh.



```
package testCases;

import ...

public class TC001_RegisterUserTestUpdated {

    WebDriver driver;

    @Test
    public void TC001(){

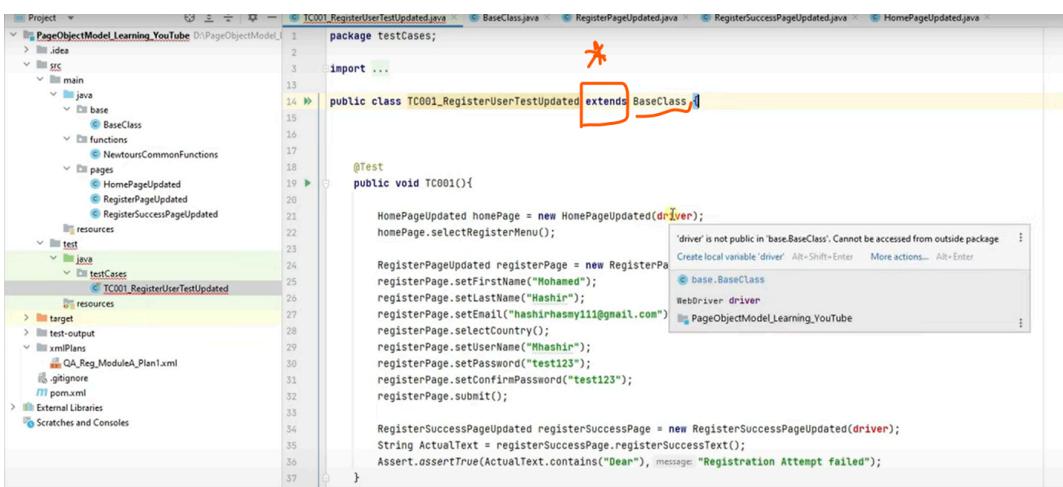
        HomePageUpdated homePage = new HomePageUpdated(driver);
        homePage.selectRegisterMenu();

        RegisterPageUpdated registerPage = new RegisterPageUpdated(driver);
        registerPage.setFirstName("Mohamed");
        registerPage.setLastName("Hashir");
        registerPage.setEmail("hashirhashmy11@gmail.com");
        registerPage.selectCountry();
        registerPage.setUserName("Mhashir");
        registerPage.setPassword("test123");
        registerPage.setConfirmPassword("test123");
        registerPage.submit();

        RegisterSuccessPageUpdated registerSuccessPage = new RegisterSuccessPageUpdated(driver);
        String ActualText = registerSuccessPage.registerSuccessText();
        Assert.assertTrue(ActualText.contains("Dear"), message: "Registration Attempt failed");
    }

    @AfterMethod
    public void closeBrowser(){
    }
}
```

Me driver eke testcase ekata gannanam **extend** keyana java key word eka danna ona. BaseClass eka danna (Import karanna



```
package testCases;

import ...

public class TC001_RegisterUserTestUpdated extends BaseClass {

    @Test
    public void TC001(){

        HomePageUpdated homePage = new HomePageUpdated(driver);
        homePage.selectRegisterMenu();

        RegisterPageUpdated registerPage = new RegisterPageUpdated(driver);
        registerPage.setFirstName("Mohamed");
        registerPage.setLastName("Hashir");
        registerPage.setEmail("hashirhashmy11@gmail.com");
        registerPage.selectCountry();
        registerPage.setUserName("Mhashir");
        registerPage.setPassword("test123");
        registerPage.setConfirmPassword("test123");
        registerPage.submit();

        RegisterSuccessPageUpdated registerSuccessPage = new RegisterSuccessPageUpdated(driver);
        String ActualText = registerSuccessPage.registerSuccessText();
        Assert.assertTrue(ActualText.contains("Dear"), message: "Registration Attempt failed");
    }
}
```

WebDriver driver eka access modifier ekak wana public keyala dala public karanna ona hamatama pana widiyata.

```

package base;

import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;
import org.testng.annotations.AfterMethod;
import org.testng.annotations.BeforeMethod;

import java.time.Duration;

public class BaseClass {
    public WebDriver driver;

    @BeforeMethod
    public void openPage(){
        driver = new ChromeDriver();
        driver.manage().window().maximize();
        driver.manage().timeouts().implicitlyWait(Duration.ofSeconds(10));
        driver.get("https://demo.guru99.com/test/newtours/index.php");
    }

    @AfterMethod
    public void closeBrowser(){
        driver.quit();
    }
}

```

Below driver eka keyanne base class eke teyana driver eka

```

package testCases;

import base.BaseClass;

public class TC001_RegisterUserTestUpdated extends BaseClass {

    @Test
    public void TC001(){

        HomePageUpdated homePage = new HomePageUpdated(driver);
        homePage.selectRegisterMenu();

        RegisterPageUpdated registerPage = new RegisterPageUpdated(driver);
        registerPage.setFirstName("Mohamed");
        registerPage.setLastName("Hashim");
        registerPage.setEmail("hashirhasmy111@gmail.com");
        registerPage.selectCountry();
        registerPage.setUserName("Mhashir");
        registerPage.setPassword("test123");
        registerPage.setConfirmPassword("test123");
        registerPage.submit();

        RegisterSuccessPageUpdated registerSuccessPage = new RegisterSuccessPageUpdated(driver);
        String ActualText = registerSuccessPage.registerSuccessText();
        Assert.assertTrue(ActualText.contains("Dear"), message: "Registration Attempt failed");
    }
}

```

BaseClass eke teyana variables , methods aithi wenawa baseclass ekan extend karapu child class(Tc class ) eka aithi wenawa.

BaseClass - parent

Tc class - child

Dan cross browser eka danna yanne.

```

public class BaseClass {
    public WebDriver driver;

    @BeforeMethod
    public void openPage(){

        String browser = "chrome";

        driver = new ChromeDriver();
        driver.manage().window().maximize();
        driver.manage().timeouts().implicitlyWait(Duration.ofSeconds(10));
        driver.get("https://demo.guru99.com/test/newtours/index.php");
    }

    @AfterMethod
    public void closeBrowser(){
        driver.quit();
    }
}

```

driver=new ChromeDriver(); meka ain karala String browser ="chrome"; danna

If dala ganne below wage

```
1 package base;
2
3 import org.openqa.selenium.WebDriver;
4 import org.openqa.selenium.chrome.ChromeDriver;
5 import org.openqa.selenium.edge.EdgeDriver;
6 import org.openqa.selenium.firefox.FirefoxDriver;
7 import org.testng.annotations.AfterMethod;
8 import org.testng.annotations.BeforeMethod;
9
10 import java.time.Duration;
11
12 public class BaseClass {
13
14     public WebDriver driver;
15
16     @BeforeMethod
17     public void openPage(){
18
19         String browser = "chrome";
20
21         if (browser.equalsIgnoreCase(anotherString: "chrome")) {
22             driver = new ChromeDriver();
23         } else if (browser.equalsIgnoreCase(anotherString: "edge")) {
24             driver = new EdgeDriver();
25         } else if (browser.equalsIgnoreCase(anotherString: "firefox")) {
26             driver = new FirefoxDriver();
27         } else {
28             System.out.println("Browser not supported : " + browser);
29             return;
30         }
31     }
32 }
```

Kawruhari string browser = cHrome keyala dunnoth eka ignore karanan thamai meka danne

Meka string browser = chrome123 wage unoth else eke SOut eka console eke wadinawa.

Last eke return keyala dila teyanne- me execution eka makata passe wenna epa.

Prasnyak enawa method(openpage) void teyanwa neh . ethakota kohomada return damme keyala. Void tebunoth return ekata passe values use karann ba.nkn return danna puluwan execution eka nawaththinna

-----  
Switch case eka dala

Switch keyala dala(caital simple hada ganna)

```
14 public WebDriver driver;
15
16 @BeforeMethod
17 public void openPage(){
18
19     String browser = "Chrome";
20
21     switch (browser.toLowerCase()){
22         case "chrome" :
23             driver = new ChromeDriver();
24     }
25
26
27     driver.manage().window().maximize();
28     driver.manage().timeouts().implicitlyWait(Duration.ofSeconds(10));
29     driver.get("https://demo.guru99.com/test/newtours/index.php");
30
31
32     @AfterMethod
33     public void closeBrowser(){
34         driver.quit();
35     }
36
37
38
39
40 }
```

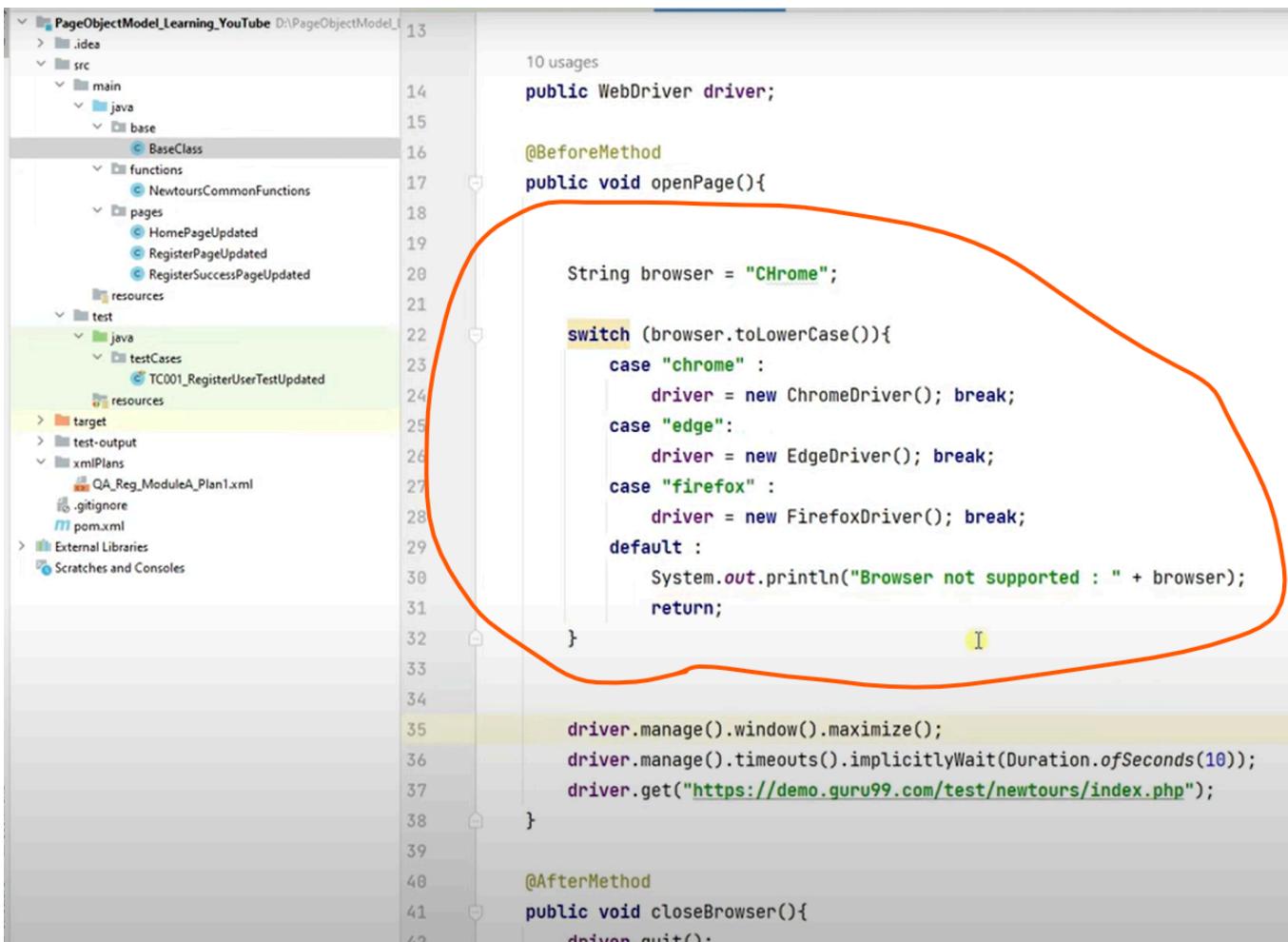
browser.toLowerCase() mekata ena value eka chrome nama : driver = new ChromeDriver() ekak hadanna.

Switch yanawa nama anewaranm java wala concept ekak wana **break** danna ona.(mandatory)

Break eka nathtm ethuru case execute wenwa .

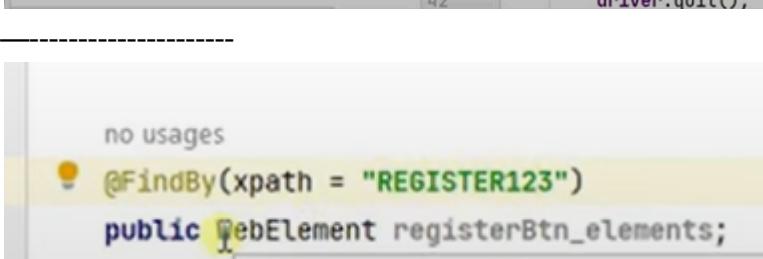
Switch eke antemata default : keya word eka danna.

Return eka danan methane stop wanna execution eka



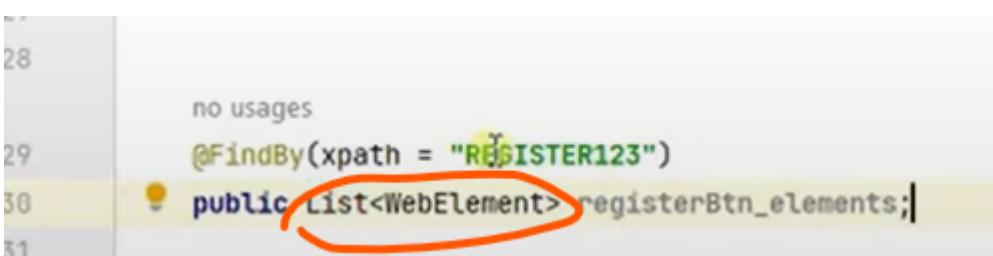
```
13      10 usages
14      public WebDriver driver;
15
16      @BeforeMethod
17      public void openPage(){
18
19          String browser = "CHROME";
20
21          switch (browser.toLowerCase()){
22              case "chrome" :
23                  driver = new ChromeDriver(); break;
24              case "edge":
25                  driver = new EdgeDriver(); break;
26              case "firefox" :
27                  driver = new FirefoxDriver(); break;
28              default :
29                  System.out.println("Browser not supported : " + browser);
30                  return;
31          }
32
33          driver.manage().window().maximize();
34          driver.manage().timeouts().implicitlyWait(Duration.ofSeconds(10));
35          driver.get("https://demo.guru99.com/test/newtours/index.php");
36
37      }
38
39      @AfterMethod
40      public void closeBrowser(){
41          driver.quit();
42      }

```



```
no usages
@FindBy(xpath = "REGISTER123")
public WebElement registerBtn_elements;
```

Me Register123 keyana ekan hugak elements locate wenwa . eka store kara ganna puluwan below wage.  
driver.findElementS dammaa api eka store kare list eke neh . e wage danna puluwan.



```
28
29      no usages
30      @FindBy(xpath = "REGISTER123")
31      public List<WebElement> registerBtn_elements;
```

Me xpath ekan elements 100 awath e 10 store kara ganna puluwan .adala element eka action eka(click) kara ganna puluwan.