**package** WebmathProject;

**import** org.openqa.selenium.WebDriver;

**import** org.openqa.selenium.WebElement;

**import** org.openqa.selenium.chrome.ChromeDriver;

**import** org.openqa.selenium.chrome.ChromeOptions;

**import** junit.framework.Test;

**public** **class** Webmath\_Project {

**private** **static** **final** String ***Assert*** = **null**;

WebDriver driver;

**public** String Url ="https://www.webmath.com/index.html";

@BeforeTest

**public** **void** lunch() {

System.*setProperty*("webdriver.chrome.driver", "C:\\Users\\abdc\\OneDrive\\Desktop\\selenium\_Jar\\chromedriver.exe");

ChromeOptions co = **new** ChromeOptions();

co.addArguments("--remote-allow-origins=\*");

driver = **new** ChromeDriver(co);

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

driver.get(Url);

}

@Test(priority = 1)

**public** **void** Home() {

driver.manage().timeouts().~~implicitlyWait~~(10,TimeUnit.SECONDS);

driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[2]/div/div/div[1]/a")).click();

String ttl = driver.getTitle();

String Exceptedttl ="WebMath - Solve Your Math Problem";

***Assert***.assertEquals(ttl, Exceptedttl,"Title is not present");

}

@Test(priority = 2)

**public** **void** Homepage() {

driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[2]/div/div/div[1]/a")).click();

WebElement Web1 = driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[3]/div/div[1]/div[1]/div/div[1]/h1"));

WebElement dropbox = driver.findElement(By.name("topicItem"));

WebElement Gobtn = driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[3]/div/div[1]/div[1]/div/div[4]/form/div/a/img"));

***Assert***.assertTrue(Web1.isDisplayed(),"Test failed Welcome to webmath not display");

***Assert***.assertTrue(dropbox.isDisplayed(),"Dropbox not visible");

***Assert***.assertTrue(Gobtn.isDisplayed(),"Go button not present");

***Assert***.assertTrue(dropbox.isEnabled(),"Dropbox not enabled");

***Assert***.assertTrue(Gobtn.isEnabled(),"Go button not enabled");

}

@Test(priority = 3)

**public** **void** Homepageverify() {

driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[2]/div/div/div[1]/a")).click();

driver.findElement(By.name("topicItem")).click();

driver.findElement(By.name("topicItem")).sendKeys("calculus derivatives");

driver.findElement(By.xpath("//\*[@id=\"jumpToPage\"]/div/a/img")).click();

}

@Test(priority = 4)

**public** **void** links() {

driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[2]/div/div/div[1]/a")).click();

WebElement contus = driver.findElement(By.xpath("/html/body/div/div[2]/div[2]/div[1]/a[2]"));

WebElement aboutwebmath = driver.findElement(By.xpath("/html/body/div/div[2]/div[2]/div[1]/a[3]"));

WebElement Whywebmath = driver.findElement(By.xpath("/html/body/div/div[2]/div[2]/div[1]/a[4]"));

WebElement Websitemap = driver.findElement(By.xpath("/html/body/div/div[2]/div[2]/div[1]/a[5]"));

WebElement privacypolicy = driver.findElement(By.xpath("/html/body/div/div[2]/div[2]/div[1]/a[6]"));

***Assert***.assertTrue(contus.isDisplayed(),"contact us not displayed");

***Assert***.assertTrue(aboutwebmath.isDisplayed(),"about math is not displaye");

***Assert***.assertTrue(Whywebmath.isDisplayed(),"Why webmath is not displayed");

***Assert***.assertTrue(Websitemap.isDisplayed(),"Web site map is not displayed");

***Assert***.assertTrue(privacypolicy.isDisplayed(),"privacy policy is not displayed");

***Assert***.assertTrue(contus.isEnabled(),"contact us not enabled");

***Assert***.assertTrue(aboutwebmath.isEnabled(),"about math is not Enabled");

***Assert***.assertTrue(Whywebmath.isEnabled(),"Why webmath is not Enabled");

***Assert***.assertTrue(Websitemap.isEnabled(),"Web site map is not Enabled");

***Assert***.assertTrue(privacypolicy.isEnabled(),"privacy policy is not Enabled");

}

@Test(priority = 5)

**public** **void** verifylinks() {

driver.findElement(By.xpath("/html/body/div/div[2]/div[2]/div[1]/a[2]")).click();

driver.manage().timeouts().~~implicitlyWait~~(5,TimeUnit.SECONDS);

driver.findElement(By.xpath("/html/body/div/div[2]/div[2]/div[1]/a[3]")).click();

driver.manage().timeouts().~~implicitlyWait~~(5,TimeUnit.SECONDS);

driver.findElement(By.xpath("/html/body/div/div[2]/div[2]/div[1]/a[4]")).click();

driver.manage().timeouts().~~implicitlyWait~~(5,TimeUnit.SECONDS);

driver.findElement(By.xpath("/html/body/div/div[2]/div[2]/div[1]/a[5]")).click();

driver.manage().timeouts().~~implicitlyWait~~(5,TimeUnit.SECONDS);

driver.findElement(By.xpath("/html/body/div/div[2]/div[2]/div[1]/a[6]")).click();

driver.get(Url);

}@Test(priority = 6)

**public** **void** otherstuff() {

driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[2]/div/div/div[8]/a")).click();

WebElement tag= driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[3]/div[1]/div[1]/h1"));

WebElement Quik = driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[3]/div[1]/div[2]/div/div[1]/form[2]/div"));

WebElement DropB= driver.findElement(By.name("topicItem"));

WebElement GoBtnn = driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[3]/div[1]/div[2]/div/div[1]/div/a/img"));

WebElement practisemath = driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[3]/div[1]/div[3]/table/tbody/tr/td[1]/font/b"));

WebElement Basicmath = driver.findElement(By.xpath("//\*[@id=\"d-childMainContLeft\"]/div[3]/table/tbody/tr/td[1]/font/font/a[1]"));

WebElement polynomals = driver.findElement(By.xpath("//\*[@id=\"d-childMainContLeft\"]/div[3]/table/tbody/tr/td[1]/font/font/a[2]"));

WebElement Staticalcalculation = driver.findElement(By.xpath("//\*[@id=\"d-childMainContLeft\"]/div[3]/table/tbody/tr/td[1]/font/font/a[3]"));

WebElement sampledata = driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[3]/div[1]/div[3]/table/tbody/tr/td[1]/font/font/a[4]"));

WebElement Handlingrownum = driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[3]/div[1]/div[3]/table/tbody/tr/td[2]/font/b"));

WebElement avrage = driver.findElement(By.xpath("//\*[@id=\"d-childMainContLeft\"]/div[3]/table/tbody/tr/td[2]/font/font/a[1]"));

WebElement Standerddaviation = driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[3]/div[1]/div[3]/table/tbody/tr/td[2]/font/font/a[2]"));

WebElement histograms = driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[3]/div[1]/div[3]/table/tbody/tr/td[2]/font/font/a[3]"));

***Assert***.assertTrue(tag.isDisplayed(),"Other math stuff not avilable");

***Assert***.assertTrue(Quik.isDisplayed(),"Quick i need help with not display");

***Assert***.assertTrue(DropB.isDisplayed(),"dropbox not display");

***Assert***.assertTrue(GoBtnn.isDisplayed(),"Go button not display");

***Assert***.assertTrue(practisemath.isDisplayed(),"practice math is not display");

***Assert***.assertTrue(Basicmath.isDisplayed(),"Basic math is not display");

***Assert***.assertTrue(polynomals.isDisplayed(),"polynomals is not display");

***Assert***.assertTrue(Staticalcalculation.isDisplayed(),"Static calculation is not display");

***Assert***.assertTrue(sampledata.isDisplayed(),"sample data is not display");

***Assert***.assertTrue(Handlingrownum.isDisplayed(),"Handling row number is not display");

***Assert***.assertTrue(avrage.isDisplayed(),"avrage is not display");

***Assert***.assertTrue(Standerddaviation.isDisplayed(),"Standerd daviation is not display");

***Assert***.assertTrue(histograms.isDisplayed(),"histograms is not display");

***Assert***.assertTrue(DropB.isEnabled(),"drop box is not enabled");

***Assert***.assertTrue(GoBtnn.isEnabled(),"go button is not enabled");

***Assert***.assertTrue(Basicmath.isEnabled(),"basic math is not enabled");

***Assert***.assertTrue(polynomals.isEnabled(),"polynomals is not enabled");

***Assert***.assertTrue(Staticalcalculation.isEnabled(),"Statical calculation is not enabled");

***Assert***.assertTrue(sampledata.isEnabled(),"sampledata is not enabled");

***Assert***.assertTrue(avrage.isEnabled(),"avrage is not enabled");

***Assert***.assertTrue(Standerddaviation.isEnabled(),"Standerd daviation is not enabled");

***Assert***.assertTrue(histograms.isEnabled(),"histograms is not enabled");

}

@Test(priority = 7)

**public** **void** otherstuffverify() {

driver.findElement(By.name("topicItem")).click();

driver.findElement(By.name("topicItem")).sendKeys("calculus derivatives");

driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[3]/div[1]/div[2]/div/div[1]/div/a/img")).click();

driver.findElement(By.cssSelector("#navBox-7 > a")).click();

driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[3]/div[1]/div[3]/table/tbody/tr/td[1]/font/font/a[1]")).click();

driver.manage().timeouts().~~implicitlyWait~~(5,TimeUnit.SECONDS);

driver.findElement(By.cssSelector("#navBox-7 > a")).click();

driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[3]/div[1]/div[3]/table/tbody/tr/td[1]/font/font/a[2]")).click();

driver.manage().timeouts().~~implicitlyWait~~(5,TimeUnit.SECONDS);

driver.findElement(By.cssSelector("#navBox-7 > a")).click();

driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[3]/div[1]/div[3]/table/tbody/tr/td[1]/font/font/a[3]")).click();

driver.manage().timeouts().~~implicitlyWait~~(5,TimeUnit.SECONDS);

driver.findElement(By.cssSelector("#navBox-7 > a")).click();

driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[3]/div[1]/div[3]/table/tbody/tr/td[1]/font/font/a[4]")).click();

driver.manage().timeouts().~~implicitlyWait~~(5,TimeUnit.SECONDS);

driver.findElement(By.cssSelector("#navBox-7 > a")).click();

driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[3]/div[1]/div[3]/table/tbody/tr/td[2]/font/font/a[1]")).click();

driver.manage().timeouts().~~implicitlyWait~~(5,TimeUnit.SECONDS);

driver.findElement(By.cssSelector("#navBox-7 > a")).click();

driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[3]/div[1]/div[3]/table/tbody/tr/td[2]/font/font/a[2]")).click();

driver.manage().timeouts().~~implicitlyWait~~(5,TimeUnit.SECONDS);

driver.findElement(By.cssSelector("#navBox-7 > a")).click();

driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[3]/div[1]/div[3]/table/tbody/tr/td[2]/font/font/a[3]")).click();

}

@Test(priority = 8)

**public** **void** Basicmath() {

driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[2]/div/div/div[8]/a")).click();

driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[3]/div[1]/div[3]/table/tbody/tr/td[1]/font/font/a[1]")).click();

WebElement problem = driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[3]/div[1]/div[2]/table/tbody/tr/td[1]/center/table/tbody/tr/td[2]/form/ol/li[1]/select"));

WebElement number = driver.findElement(By.name("ntype"));

WebElement maxnum = driver.findElement(By.name("maxnum"));

WebElement minnumber = driver.findElement(By.name("minnum"));

WebElement yesbox = driver.findElement(By.name("subneg"));

WebElement box = driver.findElement(By.name("dplaces"));

WebElement Yesb = driver.findElement(By.name("mixedn"));

WebElement genbox = driver.findElement(By.name("count"));

WebElement Doitbtn = driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[3]/div[1]/div[2]/table/tbody/tr/td[1]/center/table/tbody/tr/td[2]/form/p/input[1]"));

***Assert***.assertTrue(problem.isDisplayed(),"problem box is not displayed");

***Assert***.assertTrue(number.isDisplayed(),"number box is displayed");

***Assert***.assertTrue(maxnum.isDisplayed(),"maximum number box is displayed");

***Assert***.assertTrue(minnumber.isDisplayed(),"minimum number box is not displayed");

***Assert***.assertTrue(yesbox.isDisplayed(),"yes or no box is not displayed");

***Assert***.assertTrue(box.isDisplayed(),"decimal number box is not displayed");

***Assert***.assertTrue(Yesb.isDisplayed(),"yes or no box is not displayed");

***Assert***.assertTrue(genbox.isDisplayed(),"problems box is not displayed");

***Assert***.assertTrue(Doitbtn.isDisplayed(),"do it button is not display");

***Assert***.assertTrue(problem.isEnabled(),"problem box is not clickable");

***Assert***.assertTrue(number.isEnabled(),"number box is clickable");

***Assert***.assertTrue(maxnum.isEnabled(),"maximum number box is clickable");

***Assert***.assertTrue(minnumber.isEnabled(),"minimum number box is not clickable");

***Assert***.assertTrue(yesbox.isEnabled(),"yes or no box is not clickable");

***Assert***.assertTrue(box.isEnabled(),"decimal number box is not clickable");

***Assert***.assertTrue(Yesb.isEnabled(),"yes or no box is not clickable");

***Assert***.assertTrue(genbox.isEnabled(),"problems box is not clickable");

***Assert***.assertTrue(Doitbtn.isEnabled(),"do it button is not clickable");

}

@Test(priority = 9)

**public** **void** basic\_math\_verification() {

driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[2]/div/div/div[8]/a")).click();

driver.findElement(By.cssSelector("#d-childMainContLeft > div:nth-child(3) > table > tbody > tr > td:nth-child(1) > font > font > a:nth-child(1)")).click();

driver.findElement(By.name("ptype")).sendKeys("Addition problem");

driver.findElement(By.name("ptype")).click();

driver.findElement(By.name("ntype")).click();

driver.findElement(By.name("ntype")).sendKeys("whole numbers");

driver.findElement(By.name("ntype")).click();

driver.findElement(By.name("maxnum")).click();

driver.findElement(By.name("maxnum")).sendKeys("5");

driver.findElement(By.name("minnum")).click();

driver.findElement(By.name("minnum")).sendKeys("1");

driver.findElement(By.name("subneg")).sendKeys("yes");

driver.findElement(By.name("dplaces")).sendKeys("2");

driver.findElement(By.name("mixedn")).sendKeys("yes");

driver.findElement(By.name("count")).sendKeys("5");

driver.findElement(By.xpath("/html/body/div/div[2]/div[1]/div/div[3]/div[1]/div[2]/table/tbody/tr/td[1]/center/table/tbody/tr/td[2]/form/p/input[1]")).click();

}

@Test(priority = 10)

**public** **void** teardown() {

driver.quit();

}