

## MID TERM EXAM

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VALIDATION

SUBMITTED TO:ZAIN SHAUKAT

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# **Selenium:**

*What is Selenium?*

*SELENIUM is a free (open-source) automated testing framework accustomed validate web applications across different browsers and platforms.. Testing done using the Selenium tool is sometimes said as Selenium Testing.*

*Selenium Software isn't just one tool but a collection of software, every bit catering to different testing needs of a corporation. Here is that the list of tools*

*Selenium Integrated Development Environment (IDE)*

*Selenium device (RC)*

*Web-Driver*

*Selenium Grid*

**Supporting Languages:**

- *java*
- *C#*
- *Python*
- *Ruby*
- *Perl*
- *.Net*

## *Who developed Selenium?*

*Since Selenium could be a collection of various tools, it had different developers further. Below are the key persons who made notable contributions to the Selenium Project*

## *Introduction to Selenium*

*Primarily, Selenium was created by Jason Huggins in 2004. An engineer at Thought-Works, he was performing on an internet application that required frequent testing. Having realized that the repetitious Manual Testing of their application was becoming more and more inefficient, he created a JavaScript program that might automatically control the browser's actions. He named this program the "JavaScriptTestRunner."*

*Seeing potential during this idea to assist automate other web applications, he made JavaScript-Runner open-source which was later re-named as Selenium Core*

### **Pros:**

- *Very easy to use and install.*
- *No programming experience is required through knowledge of html and DOM are needed.*
- *Has built in help and test result reporting module.*
- *Provides support for extension*
- *Can perform looping and conditional operations.*
- *Can support data driven testing.*
- *Faster execution than IDE.*
- *Communicate directly to the browser.*
- *No need for a separate component such as the RC server.*
- *Has matured and complete API.*

### **Cons:**

- *Available only in fire-fox.*
- *Designed only to create prototypes of tests.*
- *No support for iterations and conditional operations.*
- *Must have programming knowledge.*
- *API contain redundant and confusing commands.*
- *Browser interactions is less realistic.*
- *Slower execution time than web-driver.*
- *Cannot readily support new browsers.*
- *Installation is more complicated than selenium IDE.*
- *Inconsistent results and users java-script.*
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```
1 import mypackage;
2
3 import org.openqa.selenium;
4 import org.openqa.selenium.firefox.firefoxdriver;
5
6 public class myclass{
7     public static void main(String[] args) {
8         WebDriver driver = new FirefoxDriver();
9         String baseUrl = "http://www.newtours.demout.com";
10        driver.get(baseUrl);
11        var = driver.findElement(by.cssSelector("font:contains('password:')")).getText();
12        System.out.println(var);
13        driver.close();
14        System.exit();
15    }
16 }
17
18 }
```

Line number 10 caused an error because the 'contains' keyword is not supported by CSSSelector() in the webDriver.