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**Software Quality and Testing**

Title: Assignment on Automated Testing Tool

Section: A Session: Fall (2022-23)

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# Introduction

# This assignment's main objective is to familiarize with the Selenium auto-testing tool. For this reason, we have to test any of our previous projects here and observe how they work. So we need to download and set an environment for work. Need to download 1. Selenium for java 2. Chrome Driver 3. Java Development Kit (JDK) 4. Eclipse.

# Download and Install

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| Figure 1: Selenium download for java language |

**Figure-1:** At first download Selenium for Java language from Selenium website like above figure.

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| Figure 2: Check Chrome browser Version |

**Figure-2:** For downloading the chrome driver need to check your machine's chrome version. For that open chrome then go to the 3 dotted symbol then click help then about chrome to get the version.

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| Figure 3: Download Chrome Driver |

**Figure-3:** After check the version according to it download the chrome driver.

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| Figure 4: Download JDK |

**Figure-4:** To execute Java, one must download the JDK and set up the necessary environment on own computer.

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| Figure 5: Create Environment for java |

**Figure-5:** Create the necessary environments to run the Java project after downloading JDK.

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| Figure 6: Download Eclipse |

**Figure-6:** Eclipse needs to be downloaded as it is used for creating and executing java project.

# Set up & testing:

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| Figure 7: New Java Project Create |

**Figure-7:** In eclipse, create a new project so that click new Project java project as shown in above figure.

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| Figure 8: Create Project process-2 |

Figure-8: Name the Java project. We should adhere to the Camel case convention when naming the thing. We always use JavaSe-11, it is also mandatory.

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| Figure 9: Project Create Process-3 |

Figure-9: After creating the project, sub folder src is created once the project is created. We should construct a class in src. For it named the class and also mark public static void main function for ready main function.

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| Figure 10: Adding Selenium Library |

Figure-10: After Creating Project we select root project folder and include selenium jars file which we already downloaded and extract.

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| Figure 11: Adding Chrome Driver to the created project |

Figure-11: Copying the downloaded chrome driver and paste it to the root project folder to add chrome driver. By adding it automated tested is happen in chrome browser automatically.

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| Figure 12: Test Code for login page |

Figure-12: After creating class need to write code to instruct for automated testing of login module. At first create object for Chrome driver class then call get function to call current webpage URL, then call find element to find which field or which element we need to insert data. For login we use username and password for that using two times find element function. And for login button we use button’s xpath because in development time don’t use id for button. Then use getcurrenturl because if successfully login complete then show which web page for the path using it. Run the code as a java application mode after completing the test in console shows testing complete.

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| Figure 13: Finding Id from Inspect |

Figure-13: For finding the elements id, go to the web page and select the specific input element or button then go inspect to get the id as shown in above figure.

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| Figure 14: Finding XPath for button |

Figure-14: Which element don’t have id for those finding xpth , go to the web page and select the specific input element or button then go inspect and copy the select element’s xpath as shown in above figure.

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| Figure 15: Testing got error |

Figure-15: Get error message because automated testing is not successfully complete for giving wrong password.

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| Figure 16: Test code for order with login |

Figure-16: For order table we are doing automated testing and get successful test complete message.

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| Figure 17: Test code for Information Edit |

Figure-17: For profile information edit we are used automated testing and get success.

# The End