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Object Repository in Automation Framework

- ✓ Object repository is the centralized storage of locators or properties and values of the web elements which we need to interact with at the time of execution.
- ✓ Different tools are having different mechanism to maintain the object repository.
- ✓ Ideally one module can have one object repository to avoid the complexity while reading the information programmatically.
- ✓ In case of selenium web-driver we can maintain the locators in a properties file which will be our object repository.
- ✓ In case of QTP UFT we can create the object repository using the tool and add multiple objects to the repository , repository can be local or shared.
- ✓ In appium we can maintain the object repository in properties file .
- Likewise different tools can have different ways to maintain the object repository.

Why we need to provide the locators in separate file where as we can keep the data directly in code ?

The reason is simple .It will be easier for the tester to handle any changes happening related to the web elements . Directly he or she can identify the element where and what he need to change and go to the repository and change the value or update the new element's info.

This will make the life and task easier.

How to create the object repository in Sleneium ?

We can create a properties file and save the locators information in key and value pair.

Better we need to keep the properties file in a specific folder or source folder under the project.

We need to give the meaningful name for the folder and file to easily identify the same to locate the file for object repository.

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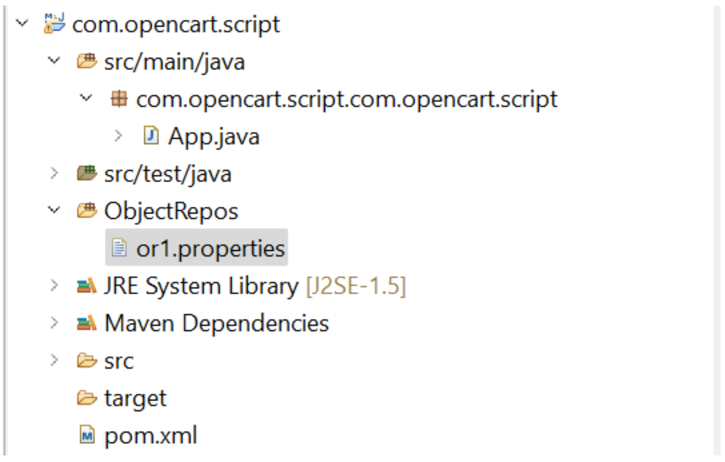
Example of a sample script accessing the locators from properties file :

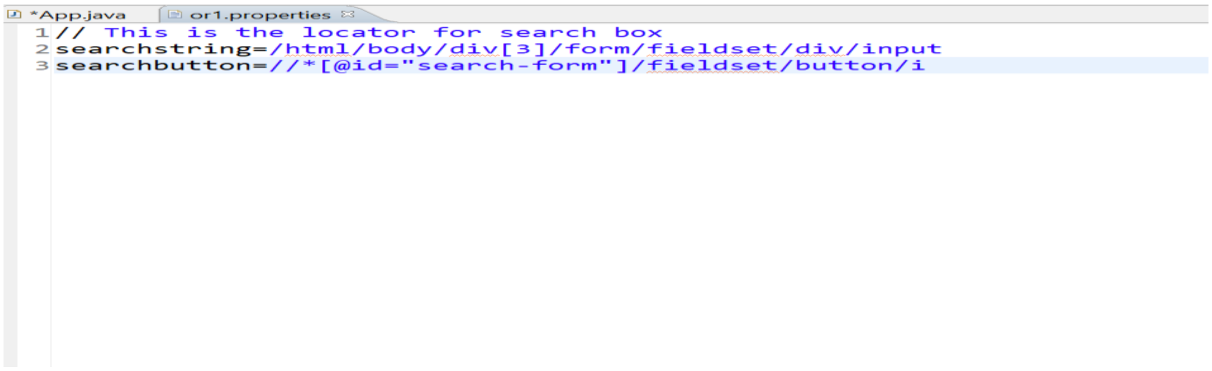
Simple folder structure:



```
com.opencart.script
  src/main/java
    com.opencart.script.com.opencart.script
      App.java
  src/test/java
  ObjectRepos
    or1.properties
  JRE System Library [J2SE-1.5]
  Maven Dependencies
  src
  target
  pom.xml
```

Note : or1 is object repository , App.java is automation script to execute

Content of or1.properties:



```
// This is the locator for search box
searchstring=/html/body/div[3]/form/fieldset/div/input
searchbutton=//*[@id="search-form"]/fieldset/button/i
```

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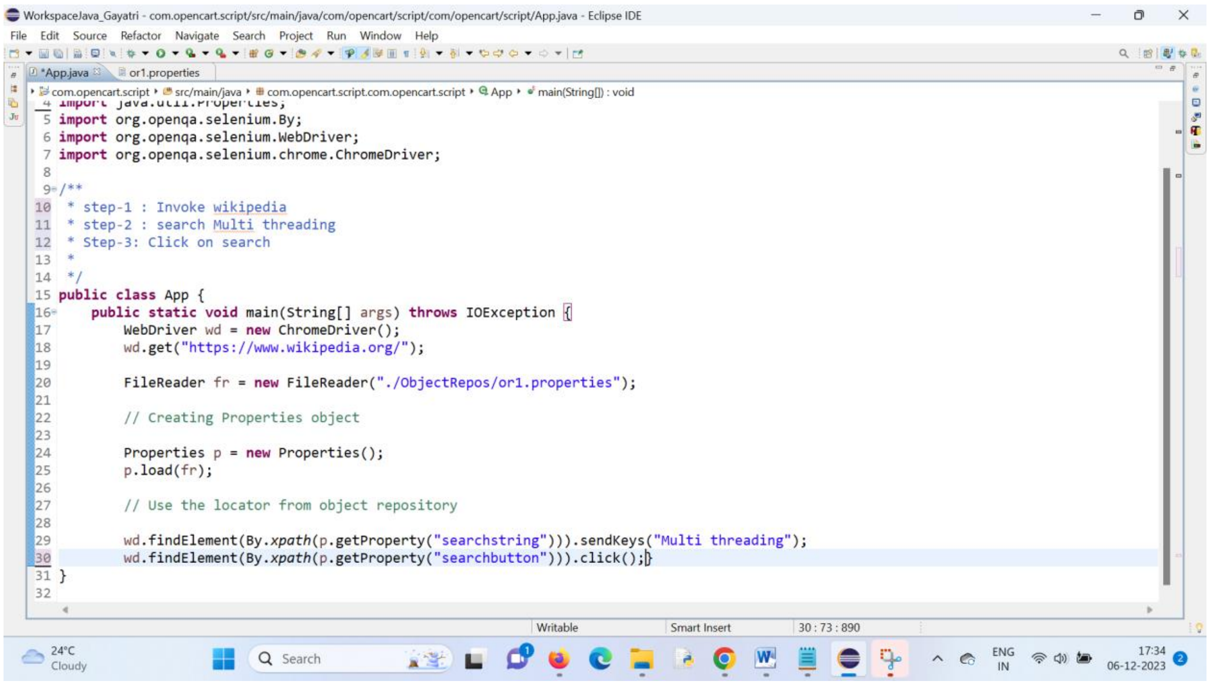
Content of App.java


WorkspaceJava_Gayatri - com.opencart.script/src/main/java/com/opencart/script/com/opencart/script/App.java - Eclipse IDE

*App.java | or1.properties

com.opencart.script › src/main/java › com.opencart.script.com.opencart.script › App › main(String[]) : void

```java
import java.util.Properties;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;

/**
 * step-1 : Invoke wikipedia
 * step-2 : search Multi threading
 * Step-3: Click on search
 *
 */
public class App {
    public static void main(String[] args) throws IOException {
        WebDriver wd = new ChromeDriver();
        wd.get("https://www.wikipedia.org/");

        FileReader fr = new FileReader("./ObjectRepos/or1.properties");

        // Creating Properties object

        Properties p = new Properties();
        p.load(fr);

        // Use the locator from object repository

        wd.findElement(By.xpath(p.getProperty("searchstring"))).sendKeys("Multi threading");
        wd.findElement(By.xpath(p.getProperty("searchbutton"))).click();}
}
```

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Wd.findElement(By.xpath(p.getProperty("searchstring"))).sendKeys("7t7");