

Properties file with Java in Selenium | prop.getProperty()

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Properties files in Selenium

Properties files stores simple parameters as key-value pairs, outside of compiled code. Key and Values are separated using '=' sign

Most of the time, properties files are used to store URL, username, password, environment, etc..

E.g.:

Key=Value

Desert=hot

Rules about properties files

Entries are generally expected to be a single line of the form, one of the following:

Output :

```
propertyName=propertyValue
```

```
propertyName:propertyValue
```

White space that appears between the property name and property value is ignored, so the following are equivalent.

Output :

```
name=cherchertech
```

```
name = cherchertech
```

White space at the beginning of the line is also ignored.

Lines that start with the comment characters ! or # are ignored. Blank lines are also ignored.

The property value is generally terminated by the end of the line. White space following the property value is not ignored and is treated as part of the property value.

A property value can span several lines if each line is terminated by a backslash (\) character. For example:

Output :

```
targetCities=
```

```
    Detroit,
```

```
    Chicago,
```

```
    Los Angeles
```

This is equivalent to targetCities=Detroit, Chicago, Los Angeles (white space at the beginning of lines is ignored).

The characters newline, carriage return, and tab can be inserted with characters, \n, \r, and \t, respectively.

The backslash character must be escaped as a double backslash. For example: `path=c:\docs\doc1`

UNICODE characters can be entered as they are in a Java program, using 'u' as a prefix. For example, u002c.

Read Properties File

We can read and write the properties file in selenium using the Properties class present in Java; this class provides few methods to read and write the data into the properties file.

Insights about properties files

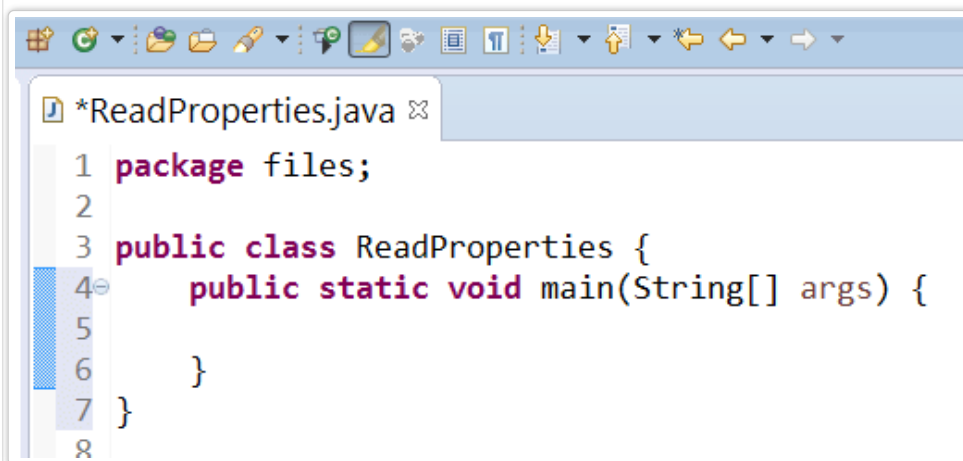
You can store the file anywhere in the local file system, better if you can place it relative to your project

Recommended .properties extension; however, you can choose your own extension like text so on.

Properties class extends the Hash table; you can iterate over the values in a properties file like you would in a Hashtable.

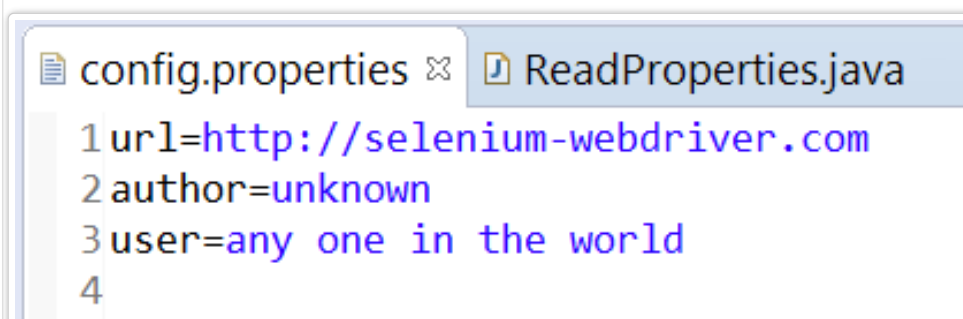
Follow the below steps to read the property file

1. Create a Java class on Eclipse



```
1 package files;
2
3 public class ReadProperties {
4     public static void main(String[] args) {
5
6     }
7 }
8
```

2. Create a properties file on your local machine with .properties extension.



```
1 url=http://selenium-webdriver.com
2 author=unknown
3 user=any one in the world
4
```

3. Create an Object for FileInputStream with a .properties file path; it makes the file into a stream input item

```
// create file input stream object for the properties file
FileInputStream fis = new FileInputStream("C:\\path\\config.properties");
```

4. Create a Properties class object to access the property file.

```
// create object for Properties class
Properties prop = new Properties();
```

5. Load the property file using load() present in the Properties object

To read the property file using load() present in the Properties object.

```
// Load properties file
prop.load(fis);
```

6. Get the values using 'get("key")' method or getProperty("key") method by passing key as the parameter

```
prop.getProperty("author");
prop.get("user");
```

Complete Program to Read a value from a properties file with java.

```
import java.io.FileInputStream;
import java.io.IOException;
import java.util.Properties;

public class ReadProperties {
    public static void main(String[] args) throws IOException {
        // create file input stream object for the properties file
        FileInputStream fis = new FileInputStream("C:pathconfig.properties");
        // create Properties class object to access properties file
        Properties prop = new Properties();
        // load the properties file
        prop.load(fis);
        // get the property of "url" using getProperty()
        System.out.println(prop.getProperty("url"));
        System.out.println(prop.getProperty("author"));
        // get the property of "url" using get()
        System.out.println(prop.get("user"));
    }
}
```

Output :

```
https://chercher.tech
unknown
any one in the world
```

[HtmlUnitDriver for headless execution in Selenium webdriver](#)

Read Properties file from ClassPath.

To read files from the classpath, we have to give the relative path to the file. We can retrieve the classpath using this.getClass().getResourceAsStream()

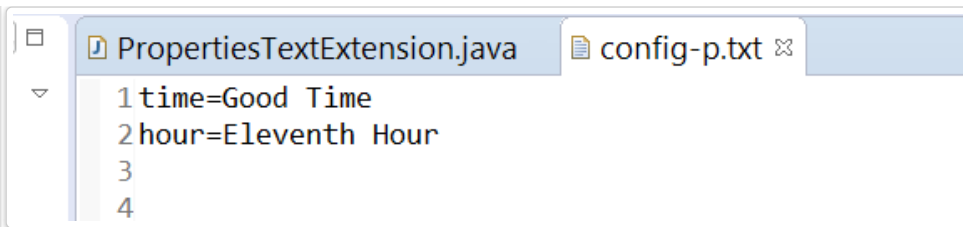
All the steps will remain the same except the path of the file.

```
// create file input stream object for the properties file
FileInputStream fis = new FileInputStream(this.getClass().getResourceAsStream("/test.properties"));
// create Properties class object to access properties file
Properties prop = new Properties();
```

Properties files in text format

Sometimes properties could be in different format like '.txt' or other extensions, the file could have any extension still we can use the same methods what we used in a .properties file.

config file



```

1 time=Good Time
2 hour=Eleventh Hour
3
4

```

This program shows how to read Properties files in text format.

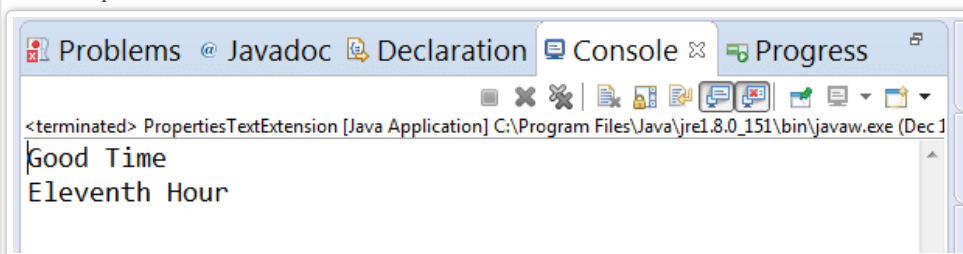
```

import java.io.FileInputStream;
import java.io.IOException;
import java.util.Properties;

public class PropertiesTextExtension {
    public static void main(String[] args) throws IOException {
        // create file input stream object for the properties file
        FileInputStream fis = new FileInputStream("C:\\path\\config-p.txt");
        // create Properties class object to access properties file
        Properties prop = new Properties();
        // load the properties file
        prop.load(fis);
        // get the property of "url" using getProperty()
        System.out.println(prop.getProperty("time"));
        // get the property of "url" using get()
        System.out.println(prop.get("hour"));
    }
}

```

Output :



```

<terminated> PropertiesTextExtension [Java Application] C:\Program Files\Java\jre1.8.0_151\bin\javaw.exe (Dec 1
Good Time
Eleventh Hour

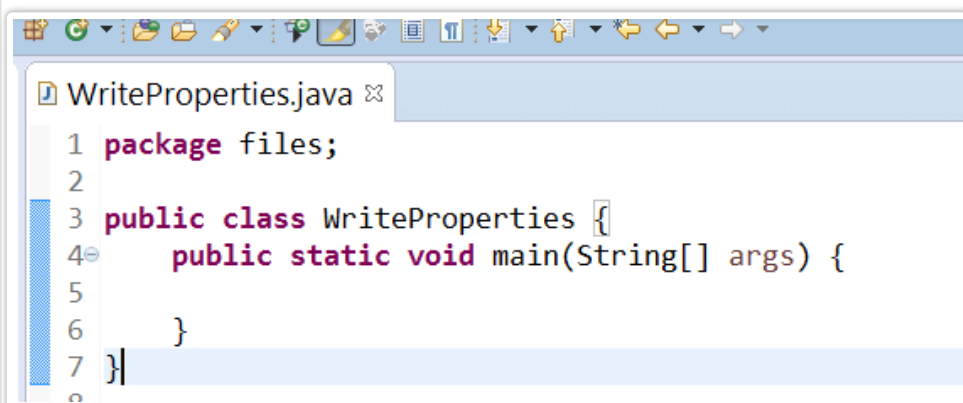
```

[Read QR by taking as Screenshot in Selenium](#)

Write Properties File

Follow the below steps to write property file

1. Create a Java class on Eclipse

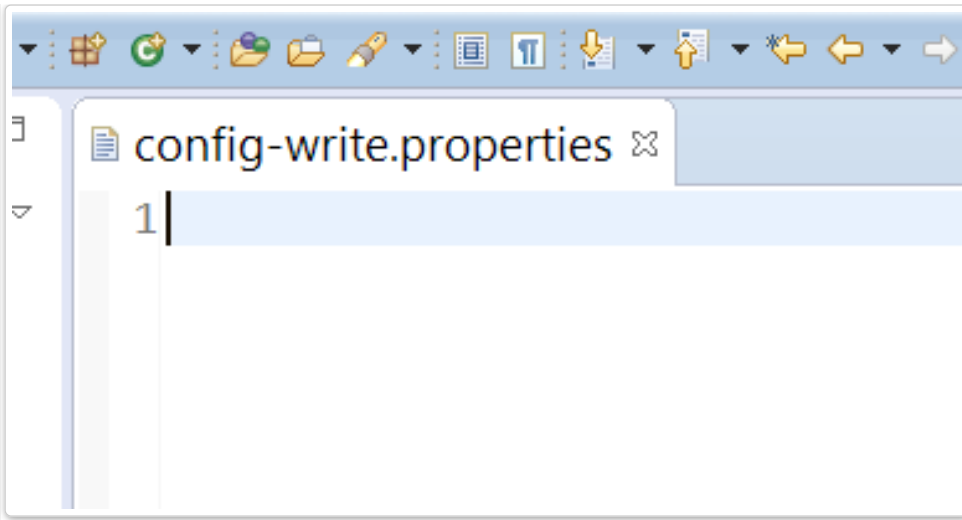


```

1 package files;
2
3 public class WriteProperties {
4     public static void main(String[] args) {
5
6     }
7 }

```

2. Create a properties file on your local machine with .properties extension(config-write.properties).



3. Create Object for FileOutputStream with a .properties file path; it makes the file into a stream output item

```
// create file output stream object for the properties file
FileOutputStream fos = new FileOutputStream("C:pathconfig-write.properties");
```

4. Create a Properties class object to access the property file.

```
// create object for Properties class
Properties prop = new Properties();
```

5. Set the values using `getProperty("key", "Value")` method by passing key and values as the parameters

```
// set the properties
prop.setProperty("Selenium", "https://chercher.tech");
```

6. Store the values onto file commit it to the local file system using `prop.store(fos)`

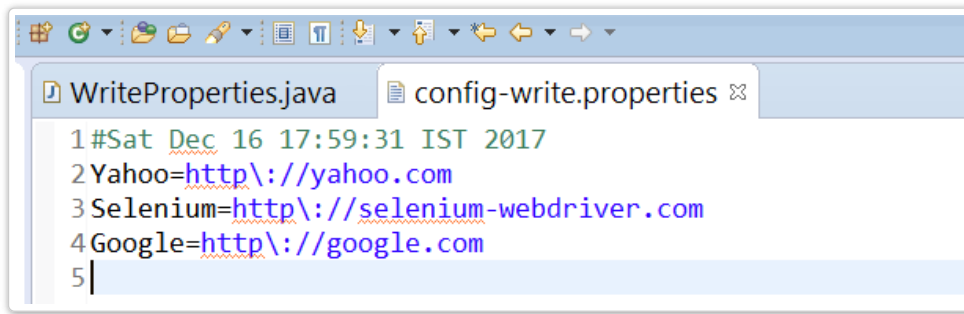
```
// set the properties
prop.setProperty("Selenium", "https://chercher.tech");
```

7. It will store the values along with the committed time on the first line

Complete Program to Write values to properties file with java

```
import java.io.FileOutputStream;
import java.io.IOException;
import java.util.Properties;

public class WriteProperties {
    public static void main(String[] args) throws IOException {
        // create file output stream object for the properties file
        FileOutputStream fis = new FileOutputStream("C:pathconfig-write.properties");
        // create Properties class object to access properties file
        Properties prop = new Properties();
        // load the properties file
        // set the properties
        prop.setProperty("Selenium", "https://chercher.tech");
        prop.setProperty("Google", "https://google.com");
        prop.setProperty("Yahoo", "https://yahoo.com");
        // store the file into local system
        prop.store(fis, null);
    }
}
```



```
1 #Sat Dec 16 17:59:31 IST 2017
2 Yahoo=http\://yahoo.com
3 Selenium=http\://selenium-webdriver.com
4 Google=http\://google.com
5 |
```

[Dropdown Operations in selenium webdriver](#)

[Compare Screenshots in selenium](#)

Recommended Readings

- [Apache POI to read write excel in Selenium Webdriver](#)
- [CSV Files in Selenium](#)
- [AutoIT in Selenium | Keyboard & Mouse](#)
- [Page Object Model in Selenium | POM Framework](#)
- [WindowsUtils & Zip class in Selenium](#)
- [testng.xml in TestNG with Selenium| testng.xml](#)
- [Run TestNG From CMD Selenium | java -jar org.testng.TestNg](#)
- [Data Provider in TestNG with Selenium Webdriver | @DataProvider](#)