# [File Handling](http://www.seleniumwebdriver.in/2015/05/file-handling.html)

Java File Handling is the important topic to understand while developing a framework for Selenium Automation .Below are some simple scenarios of file handling which will help to create Report File in Automation framework.

Creating a new File

|  |
| --- |
| **package** com; |
|  |
| **import** java.io.File; |
| **import** java.io.IOException; |
|  |
| **public** **class** CreateaFile { |
| **public** **static** **void** main(String[] args) { |
| **try** { |
|  |
| File file1 = **new** File("D:\\Selenium WebDriver\\Vineet.doc"); |
|  |
| File file2 = **new** File("D:/Selenium WebDriver/VineetKumar.doc"); |
|  |
| **if** (!file1.exists()) { |
| file1.createNewFile(); |
|  |
| } |
|  |
| **if** (!file2.exists()) { |
| file2.createNewFile(); |
|  |
| } |
|  |
| } **catch** (IOException e) { |
| e.printStackTrace(); |
| } |
| } |
| } |

Note: *When we declare the file path we can use backslash and forward slash both but with backslash we use two slash ,but for forward we use sing slash*.

Write to a newly created file

For writing on a file we will use constructors as Buffered Writer

**BufferedWriter(Writer out)**

Creates a buffered character-output stream that uses a default-sized output buffer.

**BufferedWriter(Writer out, int sz)**

Creates a new buffered character-output stream that uses an output buffer of the given size.

**Sample Program**:

|  |
| --- |
| **package** com; |
|  |
| **import** java.io.BufferedWriter; |
| **import** java.io.File; |
| **import** java.io.FileWriter; |
| **import** java.io.IOException; |
|  |
| **public** **class** Writeafile { |
| **public** **static** **void** main(String[] args) { |
| **try** { |
|  |
| String ToWrite = "Selenium Test"; |
| File file = **new** File("D:\\Selenium WebDriver\\Vineet.doc"); |
|  |
| **if** (!file.exists()) { |
| file.createNewFile(); |
| } |
| // Use BufferedWriter to write to the file |
| FileWriter fw = **new** FileWriter(file.getAbsoluteFile()); |
| BufferedWriter bw = **new** BufferedWriter(fw); |
| bw.write(ToWrite); |
| bw.close(); |
|  |
| } **catch** (IOException e) { |
| // Display error message if an exception is encounterd while writing |
| // the file |
| e.printStackTrace(); |
| } |
| } |
| } |

We can also use Java FileOutputStream for writing data to a file. In Java, FileInputStream and FileOutputStream classes are used to read and write data in file

Ex:

Deleting a file

|  |
| --- |
| **package** com; |
| **import** java.io.File; |
|  |
| **public** **class** Deletefile |
| { |
| **public** **static** **void** main(String[] args) |
| { |
| **try**{ |
|  |
| File file = **new** File("D:\\Selenium WebDriver\\Vineet.doc"); |
|  |
| **if**(file.delete()){ |
| System.***out***.println(file.getName() + " is deleted!"); |
| }**else**{ |
| System.***out***.println("Delete operation is failed."); |
| } |
|  |
| }**catch**(Exception e){ |
| e.printStackTrace(); |
| } |
| } |

}

List All files Inside a Folder

Suppose there are 3 files present inside a folder and I want to list all files name present inside a folder.

Say folder is present at the location : D:\Selenium WebDriver\VineetFolder

Inside the folder VineetFolder I am keeping 3 files as vineeet3.docx, vineeet2.bmp and vineeet1.txt

I want to print the names of the files present inside the folder :VineetFolder

|  |
| --- |
| **package** com; |
|  |
| **import** java.io.File; |
|  |
| **public** **class** ListFilesNames { |
| **public** **static** **void** main(String a[]){ |
| //Set the path of folder for which you wish to list name of all the files stored |
| File file = **new** File("D:\\Selenium WebDriver\\VineetFolder"); |
| // Object files contains all the files under the selected folder |
| File[] files = file.listFiles(); |
| //for each file in the folder |
| **for**(File f: files){ |
| System.***out***.println(f.getName()); |
| } |
| } |
|  |
| } |

O/P

vineeet3.docx

Vineet1.bmp

Vineet2.txt

Now Suppose I want to **extract only a file Name with specific extension** say from above example I only want to fetch file name having extension txt

|  |
| --- |
| **package** com; |
|  |
| **import** java.io.File; |
|  |
| **public** **class** ExtractFileWithSpecificExtension { |
|  |
| **public** **static** **void** main(String a[]) { |
| // Set folder path for which you wish to get name of the files stored |
| // with specific Extension |
| File file = **new** File("D:\\Selenium WebDriver\\VineetFolder"); |
| // Object files contains all the files under the selected folder |
| File[] files = file.listFiles(); |
| // for each file in the folder |
| **for** (File f : files) { |
| // capture all filenames with .zip extension |
| // You can mention .txt for extracting files wth .txt extension |
| **if** (f.getName().toLowerCase().endsWith(".txt")) { |
| // Print the filename with .txt extension |
| System.***out***.println(f.getName()); |
| } |
| } |
| } |
| } |

O/P

Vineet2.txt

Creating a New Folder

|  |
| --- |
| **package** com; |
| **import** java.io.File; |
| **public** **class** CreateFolder { |
| **public** **static** **void** main(String[] args) { |
| File file = **new** File("D:\\Selenium WebDriver\\VineetFolderNew"); |
| //If the folder does not exist then create it |
| **if** (!file.exists()) { |
| **if** (file.mkdir()) { |
| System.***out***.println("Directory is created!"); |
| } **else** { |
| System.***out***.println("Failed to create directory!"); |
| } |
| }}} |

Creating a New Sub Folder

|  |
| --- |
| **package** com; |
|  |
| **import** java.io.File; |
|  |
| **public** **class** CreateSubFolders{ |
| **public** **static** **void** main(String[] args){ |
| //Set the path of Folders to be created |
| //In this case Folder Javaseleniumworld ,Sub1,Sub2 doesnot exist |
| //The below code will create the Folder Javaseleniumworld and the Subdirectories Sub1 and Sub2 |
| File files = **new** File("D:\\Selenium WebDriver\\VineetFolderNew\\vin1\\vin2"); |
| **if** (!files.exists()) { |
| **if** (files.mkdirs()) { |
| System.***out***.println("Multiple directories are created!"); |
| } **else** { |
| System.***out***.println("Failed to create multiple directories!"); |
| } |
| } |
|  |
| } |
| } |

DELETING FOLDER

|  |
| --- |
| **package** com; |
| **import** java.io.File; |
|  |
| **public** **class** DELETEfOLDER { |
|  |
| **public** **static** **void** main(String[] args){ |
| //Set the folder for which delete folder ,all the sub folder and it contents |
| File fileDelete = **new** File("D:\\Selenium WebDriver\\VineetFolderNew\\vin1\\vin2"); |
| *deleteFolder*(fileDelete); |
| } |
|  |
| //Function to recursively delete all the sub folder and it contents |
| **public** **static** **void** deleteFolder(File folder) { |
| File[] files = folder.listFiles(); |
| **if**(files!=**null**) { //some JVMs return null for empty dirs |
| **for**(File f: files) { |
| **if**(f.isDirectory()) { |
| *deleteFolder*(f); |
| } **else** { |
| f.delete(); |
| } |
| } |
| } |
| folder.delete(); |
| } |
| } |

Move Files From One Folder to Another

Suppose I have to move entire files present inside a folder to another folder

Say for Example I have created a folder at the location : D:\\Selenium WebDriver\\VineetFolder containing three files vineet1.doc,vineet2.txt.vineet3.doc and I want to the VineetFolder to a new folder with URL: D:\\Selenium WebDriver\\VineetFolderNew\\vin1\\vin2 inside the subfolder of vin2

|  |
| --- |
| **package** com; |
|  |
|  |
| **import** java.io.File; |
| **public** **class** MoveFiles { |
| **public** **static** **void** main(String[] args){ |
| //Move the file from - C:/Javaseleniumworld/Code.txt to - C:/QTPworld/Code.txt |
| File from = **new** File("D:\\Selenium WebDriver\\VineetFolder"); |
| File to = **new** File("D:\\Selenium WebDriver\\VineetFolderNew\\vin1\\vin2"); |
| //Rename |
| **if** (from.renameTo(to)) |
| System.***out***.println("Successfully Moved the file"); |
| **else** |
| System.***out***.println("Error while moving the file"); |
|  |
| } |
| } |

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