

**NATIONAL UNIVERSITY OF SCIENCES AND TECHNOLOGY**

**School of Electrical Engineering and Computer Sciences**

**Advanced Programming**

**(CS213)**

**Lab#4**

**SUBMITTED TO:**

**Sir Fahad Satti**

**Sir Ahsan Gul**

**SUBMITTED BY:**

**Maria Hameed**

Reg. No. 05597

Class: BESE-4A

**Date of Submission: 07-03-2016**

The class myFile is the main class doing all the required operations.

This class has two functions and a constructor.

The constructor calls the method **getFileName()** that is a recursive method. It takes as input a String that is a name. It checks if the string is a directory. If so, it calls itself recursively, else calls the function **readFile()**. The method **readFile()** reads the content of the file. Split the content into a string using “ ” (i.e.: space) as delimiter.

The above string array is then stored in the map as key and the name of the file is stored as value.

Storing in hashmap:

When a new value is to be stored In the hashmap, it checks using the get method, if the key is already present.

If the key is already present:

Check if this value is also present against this key

If yes:

Continue;

Otherwise:

Append the name of this file to the value already stored against this key

Store the key and value in the hashmap

A test case is also added. This test case checks if the exception handling is done correctly. If an exception is thrown, the test fails.

**How to run:**

Simply run the code. It will ask for the key. Type the key and press enter. It will show the list of files containing that string