BITP 3123 Lab 2

1) Calculate and display the sum and multiplication of two values with the following String variable :

String strVar1 = “9.81”, strVar2 = “15.5”;

Tips: Use the Float class to convert/parse/cast from string to float

Constructor Summary

Float(double value) Constructs a newly allocated Float object that represents the argument converted to type float.
Float(float value) Constructs a newly allocated Float object that represents the primitive float argument.
Float(String s) Constructs a newly allocated Float object that represents the floating-point value of type float represented by the string.

Method Summary

static float	**parseFloat**(String s) Returns a new float initialized to the value represented by the specified String, as performed by the valueOf method of class Float.

```java
package week2;

public class week2_1
{
    public static void main (String[] args)
    {
        String strVar1 = "9.81";
        String strVar2 = "15.5";

        float fltVar1 = Float.parseFloat(strVar1);
        float fltVar2 = Float.parseFloat(strVar2);

        System.out.println(fltVar1 + fltVar2);
    }


}
```

2) Get two user input and calculate the sum of the two input as shown below

```
Insert your first number
200
Insert your second number
400
The sum of 2 value is:600.0
```

TIPS: use BufferedReader or Scanner class

```java
package week2;
import java.util.Scanner;

public class week2_2
{
    public static void main(String[] args)
    {
        Scanner scan = new Scanner(System.in);
        System.out.println("Insert your first number");
        double n1 = scan.nextDouble();

        System.out.println("Insert your second number");
        double n2 = scan.nextDouble();

        double total = n1+n2;

        System.out.println("The summ of 2 value is: "+ total);

    }

}
```

3) Calculate the sum of marks

```
How many mark you want to insert : 3

Please enter mark no 1

23

Mark :23.0 has been inserted

Please enter mark no 2

34.5

Mark :34.5 has been inserted

Please enter mark no 3

23.2

Mark :23.2 has been inserted

Total mark is :46.4

Press any key to continue . . .
```

```java
package week2;
import java.util.Scanner;

public class week_3
{
    public static void main (String[]args)
    {
        Scanner scan = new Scanner(System.in);

        System.out.println("How many mark you want to insert: ");
        int size = scan.nextInt();
        double total = 0;
        for (int i=1;i<=size;i++)
        {
            System.out.println("Please enter mark no " + i);
            double num = scan.nextDouble();
            System.out.println("Mark: "+num + " has been inserted ");
            total = total + num;

        }
        System.out.println(" Total mark is: "+total);
    }

}
```

4) Using ***extends*** , ***super*** and ***this*** keywords

We will revise back the use of extends dan super keyword which is extensively used in inheritence. Take note and understand the code in bold text

```
import java.io.*;

class MyFileAPI extends File
{
      MyFileAPI(String filename)
      {
            super(filename);
      }

      public static void main(String [] ar) throws Exception
      {
            MyFileAPI myfile = new MyFileAPI("My.txt");
            if(myfile.exists())
            {
                  System.out.println("File Exists!");
            }
            else
            {
                  System.out.println("File does not exist! Try another
                  file name");
            }
      }

}
```

5) Create one .txt file called Welcome.txt and insert “Welcome to Software Engineering Department” text in your working folder. Complete the source code as below. You may use your own logical process.

```
import java.io.*;

class MyReader extends FileReader
```

```
{
      File file;
      char [] content = new char[1000];
      MyReader(File file) throws Exception
      {
            super(file);
            this.file = file;
      }

      MyReader(String filename) throws Exception
      {
            super(filename);
            file = new File(filename);
      }

      public String readContent() throws Exception
      {
      /*    Algorithm : Get data from file in String representation
            Input : -
            Output: String data
            // Tips: use class BufferedReader
           Start :
               1.0    loop until end of file //may use .readLine with while loop
                      1.1    assign the string to a temporary string
                      1.2    append a string variable with the temporary string
               2.0    Return String data
               End
      */
      }

      public static void main(String [] args) throws
      Exception
      {
            MyReader reader = new MyReader("Welcome.txt");
            System.out.println(reader.readContent());
```

```
            File file = new File("Welcome.txt");
            MyReader reader2 = new MyReader(file);
            System.out.println(reader2.readContent());
        }

}
```

```java
import java.io.*;

class MyReader extends FileReader {
    File file;
    char[] content = new char[1000];

    MyReader(File file) throws Exception {
        super(file);
        this.file = file;
    }

    MyReader(String filename) throws Exception {
        super(filename);
        file = new File(filename);
    }

    public String readContent() throws Exception {
        StringBuilder content = new StringBuilder();
        try (BufferedReader reader = new BufferedReader(new FileReader(file))) {
            String line;
            while ((line = reader.readLine()) != null) {
                content.append(line).append("\n");
            }
        }
        return content.toString();
    }

    public static void main(String[] args) throws Exception {
        // Path to Welcome.txt file
        String filePath = "Welcome.txt";

        MyReader reader = new MyReader(filePath);
        System.out.println(reader.readContent());

        File file = new File(filePath);
        MyReader reader2 = new MyReader(file);
        System.out.println(reader2.readContent());
    }

}
```

6) **READ/WRITE FILE Application - Assignment**

7) Write an application called MyFile.java to insert “Welcome To UTeM” in a file called Welcome.txt.

8) Modify your program according to the algorithm below

if file exists

a. Instantiate object FileWriter

b. Append the file with this text “Software Engineering Department”

Else

c. Instantiate object FileWriter to create “WelcomeAgain.txt”

d. Write “Welcome to UTeM” into WelcomeAgain.txt