Assignment-1. Write a Java program that reads an input file from the file system and outputs the content of the file character by character. Use FileReader.read() method to read characters from the file. At the end, print the total number of characters present in the file.

```java
//Write a Java program that reads an input file from
the file system
//and outputs the content of the file character by
character.
//Use FileReader.read() method to read characters from
the file.
//At the end, print the total number of characters
present in the file.
import java.io.FileNotFoundException;
import java.io.FileReader;
import java.io.IOException;
public class FileReader1
{
    public static void main(String[] args)
    {
        // Read characters from file using FileReader
       try (FileReader fileReader = new
FileReader("C:\\Users\\user\\Desktop\\Java file
operation\\Vikas.txt"))
        {
            int character;
            int Count = 0;

            // Read characters until end of file
            while ((character = fileReader.read()) != -
1)
            {
                System.out.print((char) character); //
Output character
                Count++; // Increment total character
count
            }

            System.out.println("\nTotal number of
characters is: " + Count);
        }
        catch(FileNotFoundException fe)
```

```
        {
     fe.printStackTrace();
        }
        catch (IOException e)
        {
            System.out.println("An error occurred while
reading the file: " + e.getMessage());
        }
     }
}
```

Output:

```
"Welcome to ASM Institute Of Business And Management
Research, Pune"
Total number of characters is: 68
```

Assignment-2. Write a Java program that reads two numbers from the console. Add two numbers and print the output on the console. Use java.io.Console Class to read lines from the console. Convert the Strings to numbers before carrying out the mathematical operations. (Run the program in command prompt only.)

```
/*
 * Write a Java program that reads two numbers from the console.
 * Add two numbers and print the output on the console.
 * Use java.io.Console Class to read lines from the console.
 * Convert the Strings to numbers before carrying out the mathematical
operations.
 * (Run the program in command prompt only.)
 */
import java.io.Console;
public class NewConsole{
    public static void main(String[] args)
    {
        Console consoleObj = System.console();//Create Console Object

        if (consoleObj == null) //For Checking Console
        {
```

```
            System.err.println("No console.");
            System.exit(1);
        }

        String num1Str = consoleObj.readLine("Enter the first number:
");
        String num2Str = consoleObj.readLine("Enter the second number:
");

        try {
            double num1 = Double.parseDouble(num1Str);
            double num2 = Double.parseDouble(num2Str);

            double sum = num1 + num2;

            consoleObj.printf("The sum of %.2f and %.2f is: %.2f%n",
num1, num2, sum);
        }
        catch (NumberFormatException e)
        {
            consoleObj.printf("Invalid input. Please enter valid
numbers");
        }
    }
}
```

Output:

Microsoft Windows [Version 10.0.22631.3296]

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C:\Users\user>cd C:\ASM

C:\ASM> javac NewConsole.java

C:\ASM>java NewConsole

Enter the first number: 67

Enter the second number: 76

The sum of 67.00 and 76.00 is: 143.00