Faculty : Mr. Tarek Mizan
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Class Timing: ST 1:00 PM – 2:30 PM (LIB-611)
Topic:Java File

Objective

1. ArratList
2. Create File, Write in a File, Read from a file

```
int a = Integer.parseInt("1");
```

ArrayList01.java

```
import java.util.ArrayList;

public class ArrayList01 {
  public static void main(String[] args) {
    ArrayList<Integer> myNumbers = new ArrayList<Integer>();
    myNumbers.add(10);
    myNumbers.add(15);
    myNumbers.add(20);
    myNumbers.add(25);
    for (int i : myNumbers) {
      System.out.println(i);
    }
  }
}
```

DemoFile.java

```
public class DemoFile {

    public static void main(String[] args) {

        String dir = "src/data";
        String fileName = "info";
        String ext = ".txt";
        String filePath = dir.concat("/").concat(fileName).concat(ext);
```

```
        File fileObj = new File(filePath);
        //File fileObj = new File("src/data/info.txt");

        // Create a File
        try {
            if(fileObj.createNewFile())
                System.out.println("File created : " + fileObj.getName());
            else
                System.out.println("File already exist");
        } catch (IOException e) {
            System.out.println("An error occurred.");
            e.printStackTrace();
        }

        // Write in a File
        try {
              FileWriter myWriter = new FileWriter(filePath);   // open
file in write mode
              //FileWriter myWriter = new FileWriter(filePath,true); //
open file in append mode
              System.out.println("Enter your full name :");
              Scanner sc = new Scanner(System.in);
              String name = sc.nextLine();
              myWriter.write(name);
              myWriter.close();
              System.out.println("Successfully wrote to the file.");
            } catch (IOException e) {
              System.out.println("An error occurred.");
              e.printStackTrace();
            }
        // write in a file using PrintWriter
//       try {
//             PrintWriter output = new PrintWriter(filePath);
//             System.out.println("Enter your full name :");
//             Scanner sc = new Scanner(System.in);
//             String name = sc.nextLine();
//             output.println(name);
//             output.close();
//             System.out.println("Successfully wrote to the file.");
//
//          }
//          catch(Exception e) {
//            e.getStackTrace();
//          }



        // Read from File
         try {

              Scanner fileReader = new Scanner(fileObj);
              while (fileReader.hasNextLine()) {
```

```
                String data = fileReader.nextLine();
                System.out.println(data);
              }
              fileReader.close();
            } catch (FileNotFoundException e) {
              System.out.println("An error occurred.");
              e.printStackTrace();
            }


//      // Creates a FileReader
//       //Raed file using BufferedReader
//       FileReader file;
//      try {
//          file = new FileReader(fileObj);
//          BufferedReader br = new BufferedReader(file);
//           String input;
//              try {
//                  while((input = br.readLine()) != null) {
//                      System.out.print(input);
//                  }
//              } catch (IOException e) {
//                  // TODO Auto-generated catch block
//                  e.printStackTrace();
//              }
//
//      } catch (FileNotFoundException e) {
//          // TODO Auto-generated catch block
//          e.printStackTrace();
//      }
//


          // Remove/delete File
          if (fileObj.delete()) {
              System.out.println("Deleted the file: " + fileObj.getName());
            } else {
              System.out.println("Failed to delete the file.");
            }
          // Remove/delete Dir
          File directory = new File(dir);
          if (directory.delete()) {
              System.out.println("Deleted the folder: " +
directory.getName());
            } else {
              System.out.println("Failed to delete the folder.");
            }
    }

}
```

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Tasks:

1. Write a program that takes integers from the user and writes them into a file until the user inputs a negative number. The program should then read the file and print the sum and average of the numbers.

2. Write a function called volume(double height,double width, double depth) which return volume of a Box shaped object. Your input should be come from a file called input.txt and output should be save in a file a file called output.txt. Also, Create a JUnit test class for this function.