I/O File read/write

TestFileWriter.java

```java
package CharStream;

import java.io.FileWriter;
import java.io.IOException;


public class TestFileWriter {
    public static void main(String[] args) throws IOException {
        String data = "Welcome Bruh";
        FileWriter output = new FileWriter("output.txt");
        output.write(data);
        output.close();
    }
}
```

TestFileReader.java

```java
package CharStream;

import java.io.*;

public class TestFileReader {
    public static void main(String[] args) throws FileNotFoundException, IOException {
        //Reading a single character
        FileReader input = new FileReader("output.txt");
        int ch;
        while ((ch = input.read()) !=-1)
            System.out.print((char) ch);
        input.read();

        System.out.println("");

        //Reading characters into an array
        char[] cbuf = new char[100];
        FileReader in = new FileReader("output.txt");
        in.read(cbuf);
        System.out.println(cbuf);
        in.close();
    }
}
```

Output - Java IO (Character Stream) (run)

```
run:
Welcome Bruh
Welcome Bruh
BUILD SUCCESSFUL (total time: 0 seconds)
```

Out/Input Stream

TestOutputSreamWriter.java

```
1
2   package CharStream;
3
4   import java.io.FileNotFoundException;
5   import java.io.FileOutputStream;
6   import java.io.IOException;
7   import java.io.OutputStreamWriter;
8
9   public class TestOutputSreamWriter {
10
11
12      public static void main(String[] args) throws FileNotFoundException ,IOException{
13          String data = "Welcome to java";
15          OutputStreamWriter output = new OutputStreamWriter(new FileOutputStream("output.dat"));
16          output.write(data);
17          output.close();
18      }
19  }
```

TestInputSreamReader.java | TestInputStreamReaderArray.java

```
1   package CharStream;
2
3   import java.io.*;
4   public class TestInputSreamReader {
5
6       public static void main(String[] args) throws FileNotFoundException ,IOException{
8           InputStreamReader input = new InputStreamReader(new FileInputStream("output.dat"));
9           int ch;
10          while ((ch = input.read()) != -1)
11              System.out.print((char) ch);
12          input.close();
13      }
14  }
```

Output - Java IO (Character Stream) (run)

```
run:
Welcome to javaBUILD SUCCESSFUL (total time: 0 seconds)
```

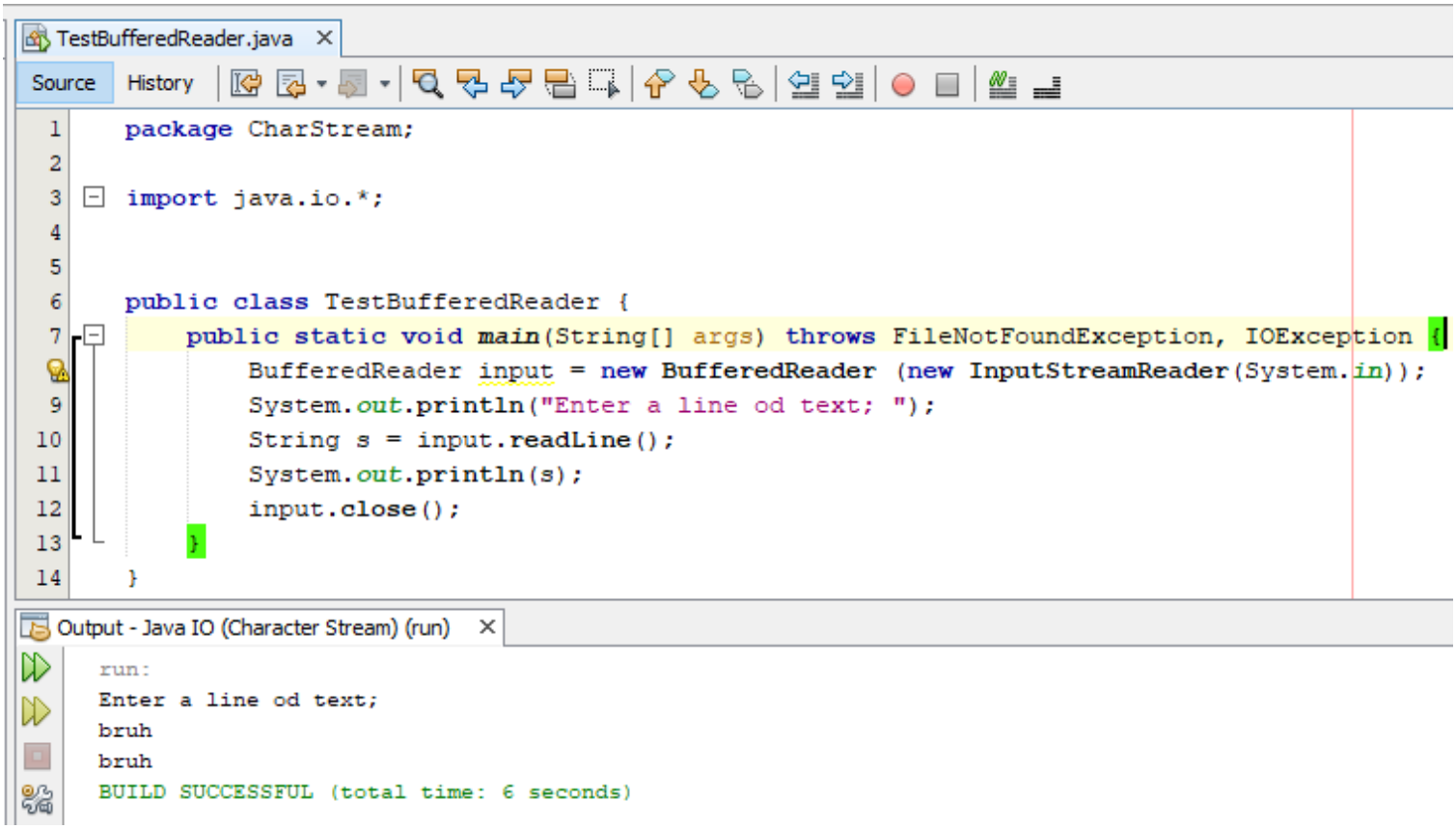
TestInputSreamReader.java | TestInputStreamReaderArray.java

```
1   package CharStream;
2
4   import java.io.BufferedReader;
5   import java.io.FileInputStream;
6   import java.io.FileNotFoundException;
7   import java.io.IOException;
8   import java.io.InputStreamReader;
9
10  public class TestInputStreamReaderArray {
11      public static void main(String[] args) throws FileNotFoundException ,IOException{
12          InputStreamReader input = new InputStreamReader(new FileInputStream("output.dat"));
13          char[] cbuf =new char[100];
14          input.read(cbuf);
15          System.out.println(cbuf);
16          input.close();
17
18      }
19  }
```

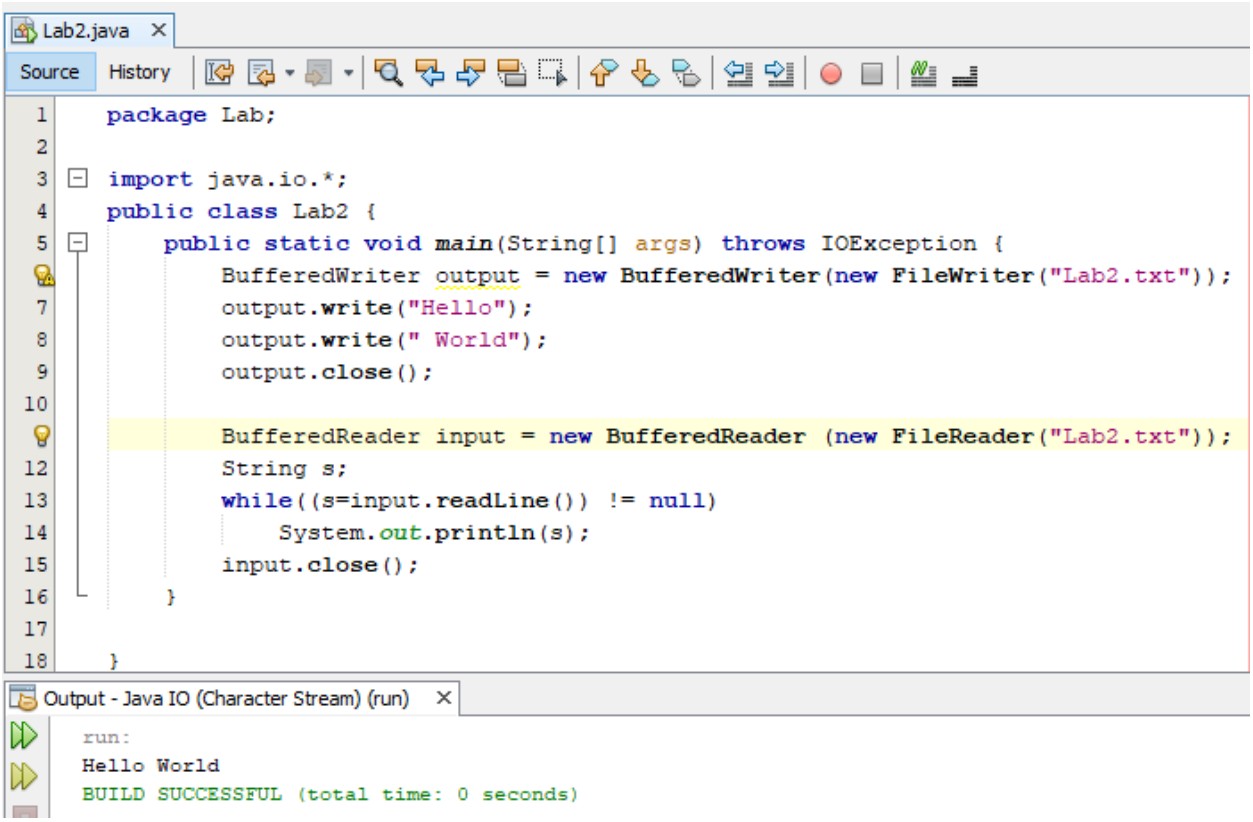
Output - Java IO (Character Stream) (run)

```
run:
Welcome to java
BUILD SUCCESSFUL (total time: 0 seconds)
```

Buffered read system.in



BufferedWriter/Reader



PrintWriter

TestPrintWriter.java

Source | History

```
1  package CharStream;
2  import java.io.*;
3  public class TestPrintWriter {
4      public static void main(String[] args) throws FileNotFoundException ,IOException{
           PrintWriter output = new PrintWriter("data.txt");
6          output.println("Tae");
7          output.println(30);
8          output.println(60.5);
9          output.close();
10
11         BufferedReader input = new BufferedReader(new FileReader("data.txt"));
12         String s = input.readLine();
13         System.out.println(s);
14         int age = Integer.parseInt(input.readLine());
15         System.out.println(age);
16         double weight = Double.parseDouble(input.readLine());
17         System.out.println(weight);
18
19         input.close();
20     }
21 }
```

Output - Java IO (Character Stream) (run)

```
run:
Tae
30
60.5
BUILD SUCCESSFUL (total time: 0 seconds)
```

Scanner

TestScanner.java

Source | History

```
1  package CharStream;
2
3  import java.io.*;
4  import java.util.Scanner;
5  public class TestScanner {
6      public static void main(String[] args) throws IOException {
7          Scanner input = new Scanner(new FileReader("data.txt"));
8          while(input.hasNext()){
9              String s = input.nextLine();
10             System.out.println(s);
11             int age = input.nextInt();
12             System.out.println(age);
13             double weight = input.nextDouble();
14             System.out.println(weight);
15         }
16         input.close();
17     }
18 }
```

Output - Java IO (Character Stream) (run)

```
run:
Tae
30
60.5
BUILD SUCCESSFUL (total time: 0 seconds)
```