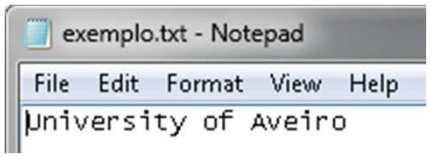
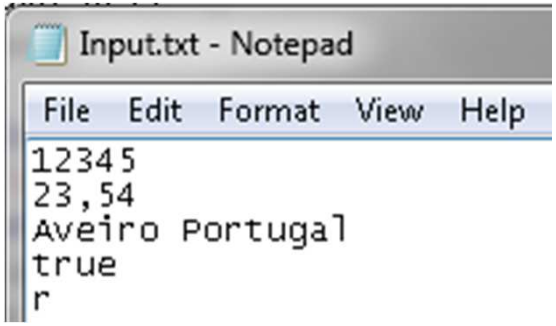
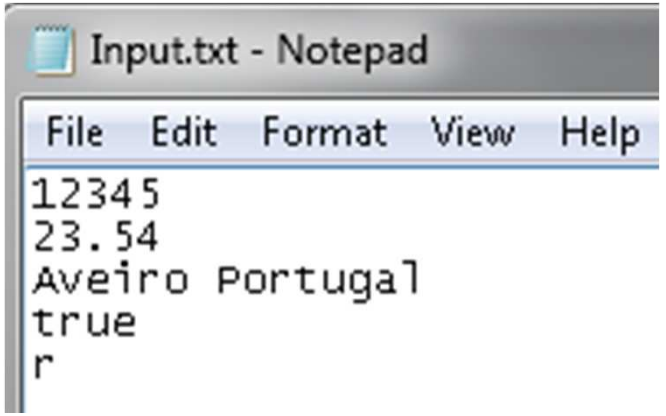
```
import java.util.*;
import java.io.*;

public class template
{     static Scanner read = new Scanner(System.in);
 public static void main(String[] args) throws IOException
 {              String nameOut = "exemplo.txt";

                File fout = new File(nameOut);
                PrintWriter pw = new PrintWriter(fout);

                System.out.print("Nome de String: ");
                String ToFile = read.nextLine();

                pw.println(ToFile);

                pw.close();
 }
}
```



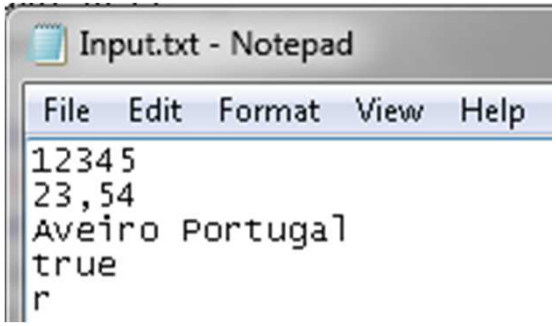
```
import java.util.*;
import java.io.*;

public class templateRead
{
public static void main(String[] args) throws IOException
 {              String nameIn = "Input.txt";
                File fin = new File(nameIn);

                Scanner readF = new Scanner(fin);

                System.out.println(readF.nextInt());

                readF.close();
 }

}
```

```
12345
Press any key to continue . . .
```





```java
import java.util.*;
import java.io.*;

public class templateRead
{
 public static void main(String[] args) throws IOException
 {		String nameIn = "Input.txt";
		File fin = new File(nameIn);

		Scanner readF = new Scanner(fin);
		String s;

		System.out.println(readF.nextInt());
		System.out.println(readF.nextDouble());
		do s=readF.nextLine(); while (s.length()==0);
		System.out.println(s);
		System.out.println(readF.next());
		System.out.println(readF.next().charAt(0));

		readF.close();
 }
```

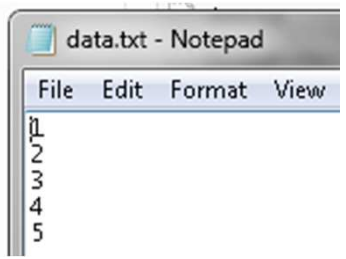



```
12345
23.54
Aveiro Portugal
true
r
Press any key to continue . . .
```

```
import java.util.*;
import java.io.*;
public class templateRead
{
 public static void main(String[] args) throws IOException
 { String nameIn = "Input.txt";
   File fin = new File(nameIn);
   if(!ver(fin,nameIn))  System.exit(2);
   Scanner readF = new Scanner(fin);
   String s;
   System.out.println(readF.nextInt());
   System.out.println(readF.nextDouble());
   do s=readF.nextLine(); while (s.length()==0);
   System.out.println(s);
   System.out.println(readF.next());
   System.out.println(readF.next().charAt(0));
   readF.close();
 }

}
```

```
public static boolean ver(File fin,String nameIn) throws IOException          {
  // verificacoess do ficheiro de entrada
  if (!fin.exists())
  {
   System.out.println("ERROR: input file " + nameIn + " does not exist!");
   return false;
  }
  if (fin.isDirectory())
  {
   System.out.println("ERROR: input file " + nameIn + " is a directory!");
   return false;
  }
  if (!fin.canRead())
  {
   System.out.println("ERROR: cannot read from input file " + nameIn+ "!");
   return false;
  }
  return true;
}
```

```
import java.util.*;                    import java.io.*;
public class DoStatsFile {
 static Scanner sc = new Scanner(System.in);
 public static void main(String[] args) throws IOException
 {                                     String nameIn;
                                       for(int i=1; i <= args.length; i++)
                                       System.out.printf("   %s \n",args[i-1]);
                                       if (args.length != 1)          { System.out.print("Ficheiro de entrada: "); nameIn = sc.nextLine(); }
                                       else                           nameIn = args[0];
                    File fin = new File(nameIn);
                    if(!ver(fin,nameIn))  System.exit(2);
                    Scanner scf = new Scanner(fin);
   Statistics xstat = new Statistics();          // Cria um registo de estatisticas:
  while (scf.hasNextDouble()) {
   double x = scf.nextDouble();                  // Lê um valor:
   updateStats(xstat, x);                        // Atualiza o registo de estatisticas:
  }
  System.out.printf("numero de valores = %d\n", xstat.num);          // Escreve resultados:
  System.out.printf("soma dos valores = %f\n", xstat.sum);
  System.out.printf("soma dos quadrados = %f\n", xstat.sum2);
  if (xstat.num > 0) {                 System.out.printf("min = %f\n", xstat.min);
                                       System.out.printf("max = %f\n", xstat.max);
                                       System.out.printf("media = %f\n", mean(xstat));
                                       System.out.printf("variancia = %f\n", variance(xstat));
                       } else      System.out.printf("Lista vazia!");
 }
public static void updateStats(Statistics xstat, double x)          // Definir funções updateStats, mean e variance!
 {                     if (x > xstat.max) xstat.max = x;
                       if (x < xstat.min) xstat.min = x;
                       xstat.num++;      xstat.sum += x;
                       xstat.sum2 += Math.pow(x,2);                  }
 public static double mean(Statistics xstat)
 {                     return xstat.sum/xstat.num;         }
 public static double variance(Statistics xstat)
 {                     return xstat.sum/xstat.num - Math.pow(mean(xstat),2);                  }
 public static boolean ver(File fin,String nameIn) throws IOException   {
 // ……
}
}
class Statistics {                     // Definir classe Statistics
                    double min=Double.MAX_VALUE, max=Double.MIN_VALUE, sum=0,sum2=0;
                    int num=0;
}
```




```
Ficheiro de entrada: data.txt
numero de valores = 5
soma dos valores = 15.000000
soma dos quadrados = 55.000000
min = 1.000000
max = 5.000000
media = 3.000000
variancia = -6.000000
Press any key to continue . . .
```