Day 7 - Programs at Bootcamp

Section B - Functions and Libraries :- Creating Libraries

1. Create Standard input class ***BLStdIn.java*** part of blLib to provide static methods for reading strings and numbers from standard input. Refer StdIn.java for further details. This class has following methods

```
public class StdIn
```

methods for reading individual tokens from standard input

boolean	isEmpty()	*is standard input empty (or only whitespace)?*
int	readInt()	*read a token, convert it to an int, and return it*
double	readDouble()	*read a token, convert it to a double, and return it*
boolean	readBoolean()	*read a token, convert it to a boolean, and return it*
String	readString()	*read a token and return it as a String*

methods for reading characters from standard input

boolean	hasNextChar()	*does standard input have any remaining characters?*
char	readChar()	*read a character from standard input and return it*

methods for reading lines from standard input

boolean	hasNextLine()	*does standard input have a next line?*
String	readLine()	*read the rest of the line and return it as a String*

methods for reading the rest of standard input

int[]	readAllInts()	*read all remaining tokens and return them as an int array*
double[]	readAllDoubles()	*read all remaining tokens and return them as a double array*
boolean[]	readAllBooleans()	*read all remaining tokens and return them as a boolean array*
String[]	readAllStrings()	*read all remaining tokens and return them as a String array*
String[]	readAllLines()	*read all remaining lines and return them as a String array*
String	readAll()	*read the rest of the input and return it as a String*

Day 7 - Programs at Home

Section B - Functions and Libraries :- Creating Libraries

1. Create Library of statistical functions BLStats.java part of blLib that takes array of real numbers from standard input, and computes the minimum, mean, maximum, and standard deviation. Refer StdStats.java for further details. Please find list of methods to be implemented

```
public class StdStats
```

double max(double[] a)	*largest value*
double min(double[] a)	*smallest value*
double mean(double[] a)	*average*
double var(double[] a)	*sample variance*
double stddev(double[] a)	*sample standard deviation*
double median(double[] a)	*median*
void plotPoints(double[] a)	*plot points at (i, a[i])*
void plotLines(double[] a)	*plot lines connecting (i, a[i])*
void plotBars(double[] a)	*plot bars to points at (i, a[i])*