



# User Input

# User input

We need to import a class called Scanner. This class will help with user input

Scanner is a class within the package java.util. A package is used to group code into a folder to make it easy to use.


```
import java.util.Scanner;
```



# User input skeleton Scanner

```
import java.util.Scanner;

class myInput
{
    public static void main(String[] args)
    {
        Scanner input = new Scanner(System.in);
    }
}
```



# Scanner syntax

This code initialize the scanner:

```
Scanner input = new Scanner(System.in)
```

**Scanner:** Data type defined in scanner class

**input:** Variable name

**new Scanner:** Creates a new Scanner object

**System.in:** - Argument, or Actual Parameter (input value)

- It is a value that corresponds to keyboard input
- It allow to input keyboard data into our programs



# Getting the user input

Create a new variable that takes the assigned value of the scanner variable.nextvalue.

Each data type has a next command:

```
Scanner input = new Scanner(System.in);
```

```
String name = input.nextLine();
```

```
int age = input.nextInt();
```

```
double avg = input.nextDouble();
```

**Note:** You **always** need to include the scanner variable to get the next value. Otherwise, your program will return an error.

# Getting user input

Variable type should match the input type.

```
Scanner input = new Scanner(System.in)
```

```
String name = input.nextInt(); - - - - - - -> ERROR - Incompatible types
```




# LET'S SEE HOW IT WORKS

```
import java.util.Scanner;

class MyScanner{
    public static void main(String[] args){
        Scanner input = new Scanner(System.in);

        System.out.println("Enter your name:");
        String name = input.nextLine();
        System.out.println("Enter your age:");
        int age = input.nextInt();
        System.out.println("Hi " + name + "!");
        System.out.println("You look older than " + age + "! :o)");
    }
}
```



# nextInt(), nextDouble() Problem

There could be issues when you using nextInt() or nextDouble() before nextLine()

```
System.out.println("Enter your age:");  
int age = input.nextInt();  
System.out.println("Enter your name:");  
String name = input.nextLine();
```

## What is wrong with the code?

- nextInt() and nextDouble() read a portion of the line in the user input.
- When nextLine() is called, it will read from the same line as nextInt() or nextDouble()



# How do we solve the nextInt(), nextDouble() problem?

We need to add a buffer nextLine()

```
System.out.println("Enter your age:");
```

```
int age = input.nextInt();
```

```
input.nextLine(); →
```

**Gets the blank space after the int, so  
the next String input will work.**

```
System.out.println("Enter your name:");
```

```
String name = input.nextLine();
```