



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 PRACTICE



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();
```