



Workshop2 – Console I/O

COMP90041 Programming and software
development

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Review



Console I/O

- Console Output example:

```
System.out.print("Hello World");
```

- Console input example:

```
Scanner keyboard = new Scanner(System.in);  
int inputString = keyboard.next();
```



Console output

- Console Output example:

```
System.out.print("Hello World");
```

- **System:** a Class
- **out:** an **Object** that belongs to System class, but the object type is **PrintStream**
- **print:** method belongs to **PrintStream** Class

System.out can invoke any public method that belongs to **PrintStream** Class



Console output

Other methods that belongs to PrintStream Class:

- `print()`
- `println()`
- `printf()`

To use this methods:

`System.out.print("Hello World");` // does not end a line

`System.out.println("Hello world")` //end a line

`System.out.printf("%6.2f",19.2)` // used to format output

Demo Time...



Console Input

- Console input example:

```
// Firstly create a new Scanner Object named "keyboard"  
Scanner keyboard = new Scanner(System.in);  
  
//next() is a method belongs to Scanner class  
String inoutString = keyboard.next();
```

- **Scanner**: a Class
- **keyboard**: an **Object**, the **Object type** is **sacnner**
- **next()**: method belongs to **Scanner** Class



Console Input

Other methods that belongs to Scanner Class:

- `next()`
- `nextInt()`
- `nextDouble()`
- `nextLong()`
- `nextShort()`

To use this methods:

```
keyboard.next();
```

```
keyboard.nextInt();
```

Demo Time..



Console Input

Hint:

- When using Scanner class, we must firstly import `java.util.Scanner`
- However, when using `System.out.print()`, we don't need to import extra package. **Why?**



Console Input

Hint:

- When using Scanner class, we must firstly import `java.util.Scanner`
- However, when using `System.out.print()`, we don't need to import extra package. **Why?**
- Because System class in `java.lang.System` package, `java.lang` package is imported by default. Many fundamental classes are in `java.lang` package.



Project suggestions



Project suggestions

- Read week4 Lecture slides before you do the project
- Be careful about your coding style, read coding Style Example in LMS.
- Avoid excess use of static method
- Avoid long method, try to break-up your method
- Submit as early as possible ---