



Object Oriented Programming CS F213

BITS Pilani
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Simple program

My first program



```
class first{  
    public static void main(String args[]){  
        System.out.println("Hello World");  
    }  
}
```

Save the file as `first.java`

What is `System.out.println`?



- System is a Class in java.lang package
- out is a Variable
- println() is a method

```
class System {  
    public static final PrintStream out;  
    //...  
}
```

```
class PrintStream{  
    public void println();  
    //...  
}
```

Set path, Compile and Execute

innovate

achieve

lead

Command Prompt

```
Microsoft Windows [Version 10.0.17134.165]  
(c) 2018 Microsoft Corporation. All rights reserved.
```

```
C:\Users\Dell>cd\
```

```
C:\>D:
```

```
D:\>cd COURSES
```

```
D:\COURSES>cd OOPS
```

```
D:\COURSES\OOPS>cd "FS 2018-2019"
```

```
D:\COURSES\OOPS\FS 2018-2019>cd codes
```

```
D:\COURSES\OOPS\FS 2018-2019\codes>set path="C:\Program Files\Java\jdk-9.0.1\bin"
```

Note: No space before
and after the '=' sign

```
D:\COURSES\OOPS\FS 2018-2019\codes>javac first.java
```

```
D:\COURSES\OOPS\FS 2018-2019\codes>java first  
Hello World
```

```
D:\COURSES\OOPS\FS 2018-2019\codes>_
```

Setting PATH variable



- Right click My Computer → Properties → Advanced system setting → Environment Variables → System Variables → Path (Edit)
 - Add C:\Program Files\Java\jdk-9.0.1\bin
- It is sufficient to do this once.

Parameters used



- **class** keyword is used to declare a class in java.
- **public** keyword is an access modifier which represents visibility, it means it is visible to all.
- **static** is a keyword. The core advantage of static method is that there is no need to create object to invoke the static method. The main method is executed by the JVM.
- **void** is the return type of the method
- **main** represents the starting point of the program.
- **String[] args** is used for command line argument.
 - args is an array of type java.lang.String class
- **System.out.println()** is used to print a string.

Valid and Invalid 'Main' Signatures



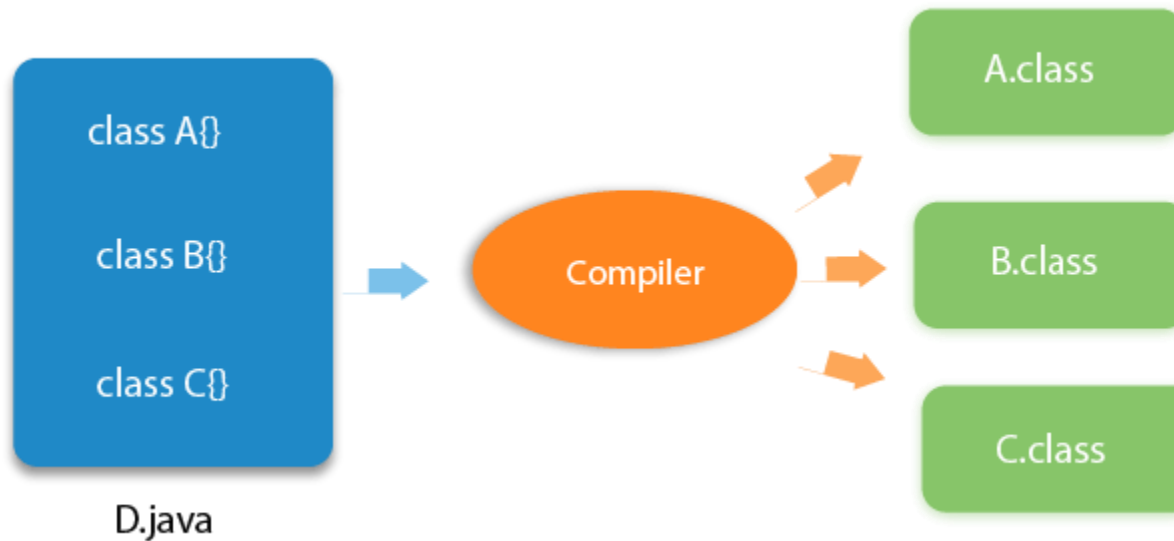
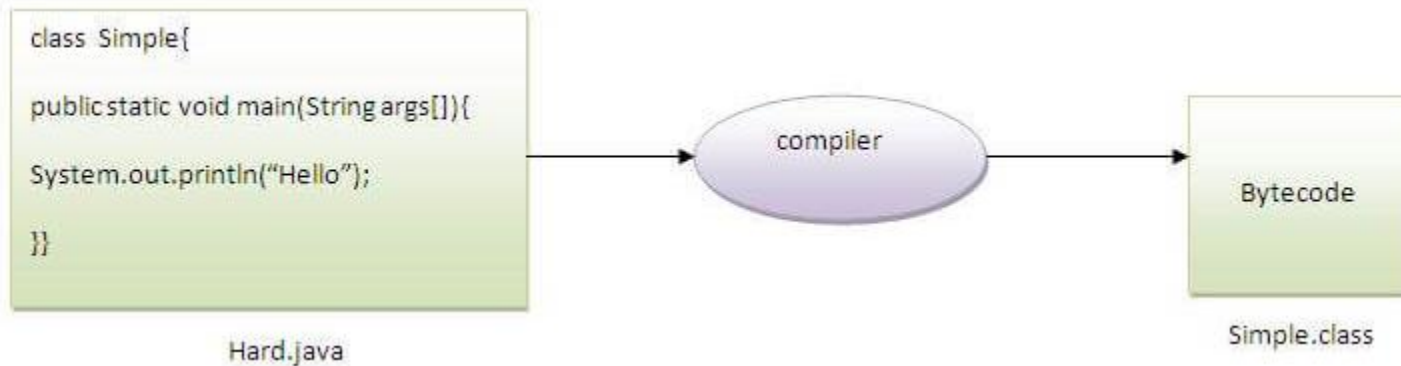
- VALID

- **public static void** main(String[] args)
- **public static void** main(String []args)
- **public static void** main(String args[])
- **public static void** main(String... args)
- **static public void** main(String[] args)
- **public static final void** main(String[] args)
- **final public static void** main(String[] args)

- INVALID

- **public void** main(String[] args)
- **static void** main(String[] args)
- **public void static** main(String[] args)
- **abstract public static void** main(String[] args)

Additional details





Command Line Arguments

Example



```
public class Main {  
    public static void main(String[] args) {  
        for(int i=0; i<args.length; i++){  
            System.out.println("args["+ i +"] =" + args[i]);  
        }  
    }  
}
```

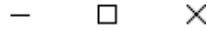
Online compiler with command prompt:

https://www.onlinegdb.com/online_java_compiler

Command Line Arguments (From Command Prompt)



Command Prompt



```
Microsoft Windows [Version 10.0.17134.165]
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C:\Users\Dell>cd\

C:\>d:

D:\>cd COURSES

D:\COURSES>cd OOPS

D:\COURSES\OOPS>cd "FS 2018-2019"

D:\COURSES\OOPS\FS 2018-2019>cd codes

D:\COURSES\OOPS\FS 2018-2019\codes>javac TestAccount.java

D:\COURSES\OOPS\FS 2018-2019\codes>java TestAccount 832345 "Ankit" 832345 "Aankit" 5000
832345 Ankit 0.0
832345 Aankit 5000.0

D:\COURSES\OOPS\FS 2018-2019\codes>_
```