

Java for beginners

Packages and import



Saurabh Shukla (MySirG)

Agenda

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- ② Benefits of packages
- ③ How to create package?
- ④ General Error
- ⑤ How to create package in IntelliJ ?
- ⑥ import
- ⑦ printing date and time
- ⑧ Multiple classes in Java file

Package

- Packages are nothing more than the way we organize files into different directories according to their functionality, usability as well as category they should belong to.
- Files in one directory (or package) would have different functionality from those of another directory.

Example

files in `java.io` package do something related to I/O, but files in `java.net` package give us the way to deal with the Network.

Benefit

- Packaging also help us to avoid class name collision when we use the same class name as that of others
- The benefits of using package reflect the ease of maintenance, organization and increase collaboration among developers.

Creating Package

Suppose we have a file called HelloWorld.java and we want to put this file in a package world

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

> javac -d . HelloWorld.java

General Error

'javac' is not recognised as an internal
or external command, operable program
or batch file

When you get this error, you should
conclude that your operating system
cannot find the compiler.

Set PATH of javac so that OS can
find it.

Creating Packages in IntelliJ

- Right click on src folder from project tree view.
- select package
- give name to your package

How to compile java file ?

javac -d . filename.java

How to run java file

java packageName . className

import

- To use classes that resides in another package, we need to use import statement.
- You can import whole package or a particular class using one import statement
- Syntax

```
import package.*;
```

```
import package.ClassName;
```

write import statement at the beginning of java file

Example

```
import java.time.LocalDateTime;
class HelloWorld {
    public static void main(String []args) {
        LocalDateTime t = LocalDateTime.now();
        System.out.println(t);
    }
}
```

Example

```
import java.time.LocalDateTime;
import java.time.format.DateTimeFormatter;
class HelloWorld {
    public static void main(String []args) {
        LocalDateTime t = LocalDateTime.now();
        DateTimeFormatter f=DateTimeFormatter.ofPattern("dd/mm/yy");
        System.out.println(f.format(t));
    }
}
```

Multiple Classes in a java file

- We can have only one public class in a single java file.
- Name of the file should be same as the name of public class.
- In absence of public class, any class name can be given to the file name.