

Building Blocks

Packages

Packages

- Java classes are stored in different *packages*
- you can think of them as folders in which the classes are stored
- in order to use a class, you must *import* a package in your program
- name of the package usually looks something like
 - `com.udemy.javacourse.ocp`
 - this means that there is a folder "com", in which there is a subfolder "udemy", with subfolder "javacourse", with subfolder "ocp" containing classes
 - exam creators like to use more generic names like `a.b.c`

```
import java.util.Random;

public class NumberGenerator {

    public static void main(String[] args) {

        Random randomNumber = new Random();

        System.out.println(randomNumber.nextInt(100));

    }

}
```

// option without using import is to use a fully qualified name of the class

```
java.util.Random randomNumber = new java.util.Random();
```

```
// using wildcards
import java.util.Random    // imports class Random
import java.util.*         // imports all classes in java.util package
                           // but not in subpackages (subfolders) !!
import java.util.*.*       // DOES NOT COMPILE

// conflicts
import java.util.Date;
import java.sql.Date;      // DOES NOT COMPILE

// solution
import java.util.Date;
import java.sql.*;         // Java will use java.util.Date
```

```
// using custom packages
```

```
package com.udemy.oca // corresponds to a folder (must be in the first line!)
```

```
public class Oca { }
```

```
package com.udemy.ocp // another folder
```

```
import com.udemy.oca;
```

```
public class Ocp {
```

```
    Oca myOcaInstance = new Oca();
```

```
}
```