FACULTY OF ENGINEERING & TECHNOLOGY
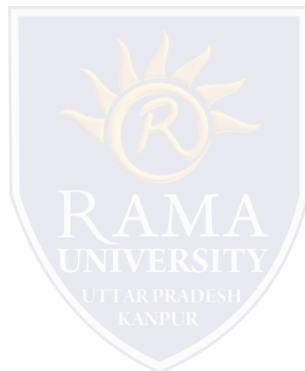
BCS-503: Object Oriented Techniques

Lecture-28

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In this PPT, you will learn to:
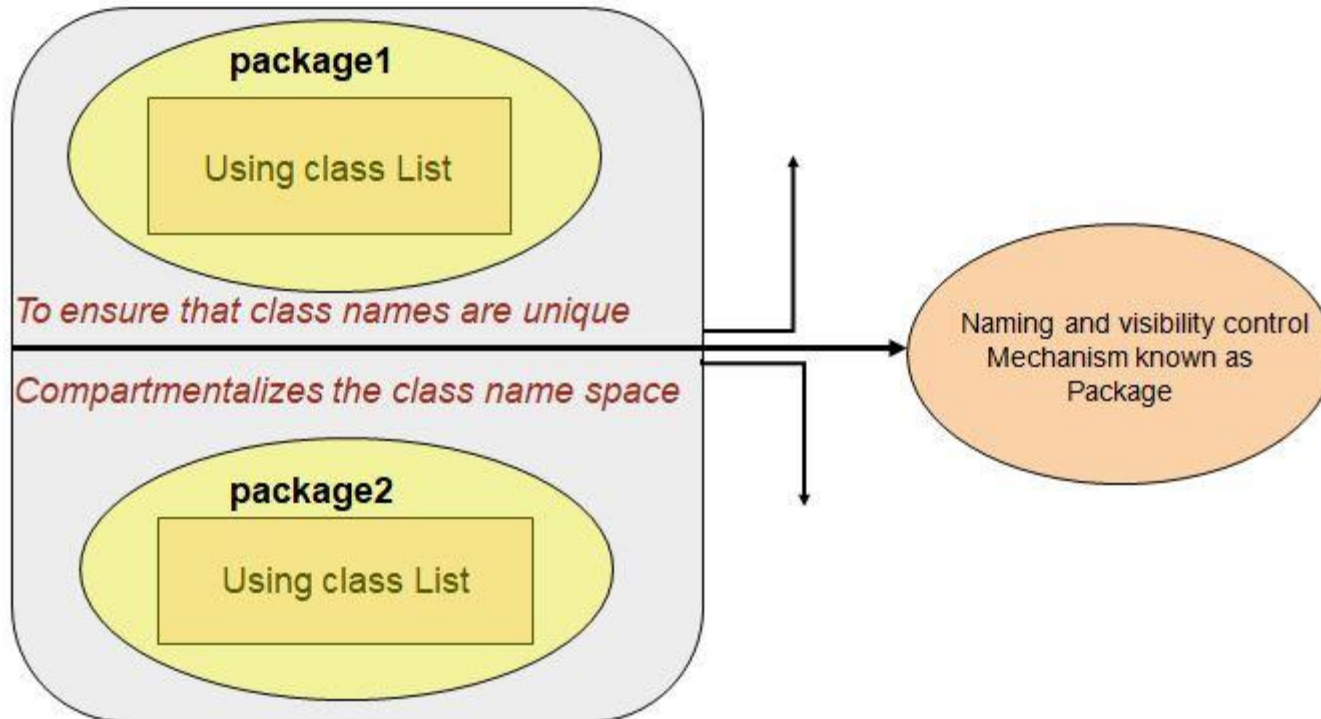
❖ **Define packages**

❖ **Creating Packages in Java**

❖ **Packages and Access control**

Packages

Program Code

Syntax

```
package <packagename>;
```

<packagename> is the valid identifier following package naming conventions

```
...
package pack;
public class Welcome {
    public void greet() {
        System.out.println("hello");
    }
}
...
```
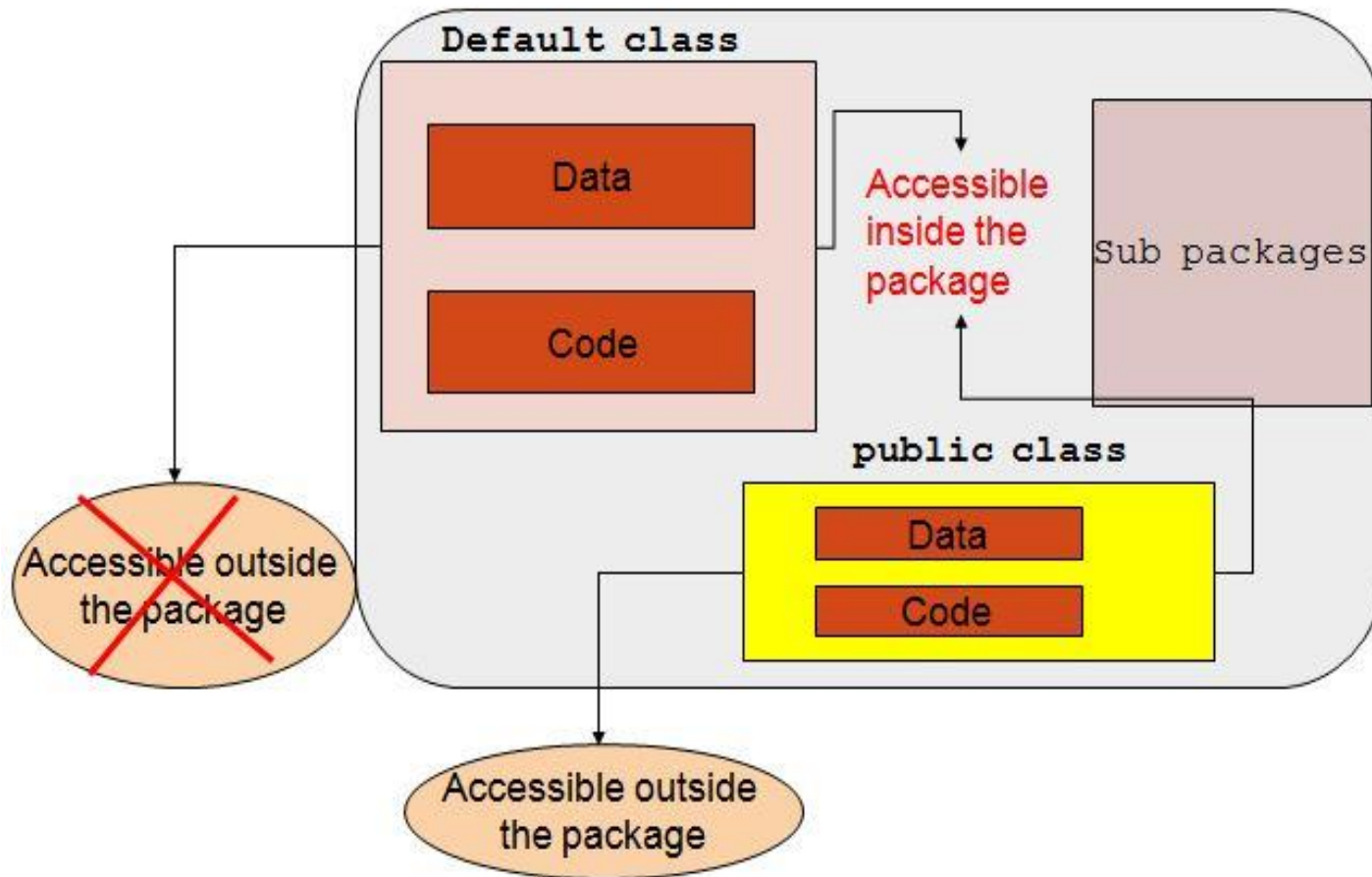
Syntax

```
import <package-name>.*;
import <package-name>.<class-name>;
```

It is possible to include the same package statement in more than one Java source file to indicate that all such classes belong to the same package.

```
import pack.Welcome;
class Importer {
    public static void main(final String [] args) {
        Welcome.greet();
    }
}
```

Package (container for classes and sub packages)

PACKAGES AND ACCESS CONTROL (Contd.)

Location	private	No modifier	protected	public
Same class	Yes	Yes	Yes	Yes
Same package and also a subclass	No	Yes	Yes	Yes
Same package but not a subclass	No	Yes	Yes	Yes
Different package but a subclass	No	No	Yes	Yes
Different package but not a subclass	No	No	No	Yes

PACKAGES AND ACCESS CONTROL (Contd.)
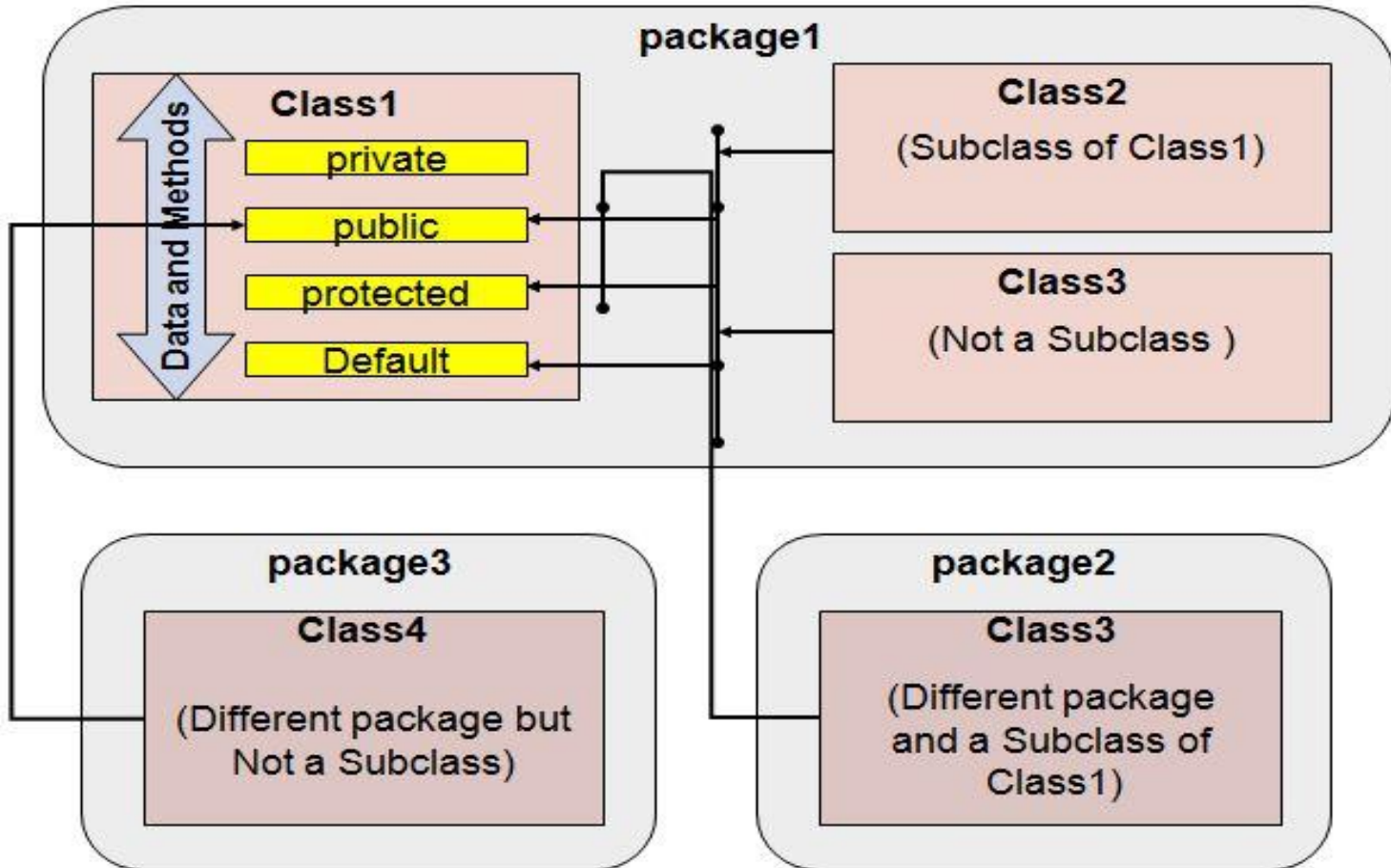
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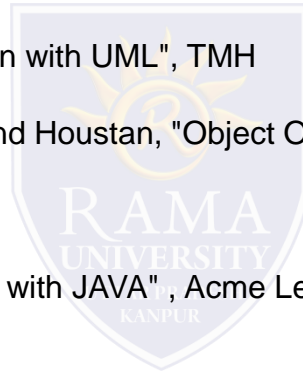
Multiple Choice Question:

Q1. Which of these keywords is used to define packages in Java?

a) pkg

b) Pkg

c) package

d) Package

Multiple Choice Question:

Q2. Which of these is a mechanism for naming and visibility control of a class and its content?

a) Object

b) Packages

c) Interfaces

d) None of the Mentioned.

Multiple Choice Question:

Q3. Which of this access specifies can be used for a class so that its members can be accessed by a different class in the same package?

a) Public

b) Protected

c) No Modifier

d) All of the mentioned

Multiple Choice Question:

Q4. Which of these access specifiers can be used for a class so that its members can be accessed by a different class in the different package?

a) Public

b) Protected

c) Private

d) No Modifier

Multiple Choice Question:

Q5. Which of the following is the correct way of importing an entire package 'pkg'?

    a) import pkg.

    b) Import pkg.

    c) import pkg.*

    d) Import pkg.*

In this PPT, you learned that:

➤ The classes in a package must be saved under a folder that bears the same name as the package.

➤ The java.lang package is imported by default into every Java program.