

```

Package mypackage; // Declare the package
Public class MyPackageDemo {
    public void displaymessage() {
        System.out.println ("Hello from Mypackage");
    }
}

```

Step 2 :- Compile the package.

- * Compile file & specify the destination for the package using the -d option:

```
javac -d . MyPackageDemo.java.
```

Step 3 :- Use the package.

- * Create another file, testpackage.java to use package

```

import mypackage.MyPackageDemo; // Import package.
Public class TestPackage {
    public static void main (String[] args) {
        MyPackageDemo obj = new MyPackageDemo();
        obj.displayMessage(); // call method.
    }
}

```

Step 4 :- Compile & Run

```
javac Testpackage.java
```

Run

```
java Testpackage
```

o/p :- Hello from
Mypackage.

* Import only the specific class.

```
import mypackage.MypackageDemo;
```

* Import entire package [import all classes]

```
import mypackage.*;
```

* Using fully qualified name: Use the class with its full package name without importing

```
public class Test {  
    public static void main (String [] args) {  
        mypackage.MypackageDemo obj = new mypackage.  
            MypackageDemo ();  
        obj.displaymessage ();  
    }  
}
```

Q Explain the various levels of access protections available for packages & their implications with suitable examples

⇒ Java provides four levels of access control for classes, methods, and variables.

* These access levels define the scope and visibility of the members in a program.
[fields, method, constructors].

They are:

- * Default [package-private]
- * Private
- * Protected
- * Public

1. Private

- * Accessible only within the same class
- * Restricts access to the member from any other class, even within the same package.
- * Used for encapsulation to protect sensitive data.

Example

```
class privateExample {  
    private int secret = 45;  
    public int getSecret() {  
        return secret;  
    }  
}  
public class Testprivate {  
    public static void main (String[] args) {  
        privateExample obj = new PrivateExample();  
        System.out.println("secret: " + obj.getSecret());  
    }  
}
```

2. Default [package-private]:

- * Accessible only within the same package.
- * Cannot be accessed from outside the package.