

Lab Activity 6

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Batch – B6 (SPZ - AI ML)

Title - Package

1. Write a Java program to implement the concept of importing classes from user-defined packages and created packages.

Code

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1  package pack;
2
3  public class message {
4      public void print()
5      {
6          System.out.println(" hello ");
7      }
8  }
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```

2. Write a program to make a package Balance. This has an Account class with the Display_Balance method. Import Balance package in another program to access Display_Balance method of Account class.

Code

```
1 package lab6.q2.balance;
2
3 public class Account
4 {
5     public void Display_Balance(String name, int number , int balance )
6     {
7         System.out.println(" Name of the account holder : "+name );
8         System.out.println(" Account number : " +number );
9         System.out.println(" Account balance : " +balance);
10    }
11 }
12
13
```

```
2
3
4 import lab6.q2.balance.Account;
5
6 public class Bank
7 {
8     Run | Debug
9     public static void main (String args [])
10    {
11        Account obj = new Account() ;
12        obj.Display_Balance ( "Sarvagya Gupta ", 500083195 , 500000);
13    }
14 }
15
```

Output

```
PS E:\codes\java> & 'c:\Users\Sarvagya Gupta\.vscode\extensions\vscjava.vscode-jav
oundation\jdk-11.0.12.7-hotspot\bin\java.exe' '-Dfile.encoding=UTF-8' '-cp' 'C:\Use
8c57f59a9f97e58a3ad5c4d77e97b\redhat.java\jdt_ws\java_59701c25\bin' 'lab6.q2.Bank'
Name of the account holder : Sarvagya Gupta
Account number : 500083195
Account balance : 500000
PS E:\codes\java>
```

3. WAP to create a package p with class A with 4 types of access-protected methods. How we will use these methods in different packages class i.e. there is main() in class B in package Q and 4 methods are in Class A in package p.

Code

```
package p;

public class A{

    public static void meth1(){
        System.out.println("This is public method");
    }

    protected static void meth2(){
        System.out.println("This is protected method");
    }

    private static void meth3(){
        System.out.println("This is private method");
    }

    static void meth4(){
        System.out.println("This is default method");
    }

    Run | Debug
    public static void main(String[] args){
        A c = new A();
        A.meth1();
        A.meth2();
        A.meth3();
        A.meth4();
    }
}
```

Output

```
PS C:\Users\Lenovo\OneDrive\Desktop\500082715\OOPS\Practice> javac -d . A.java
PS C:\Users\Lenovo\OneDrive\Desktop\500082715\OOPS\Practice> java p.A
This is public method
This is protected method
This is private method
This is default method
```

Code

```
package p;

public class C extends A{
    Run | Debug
    public static void main(String[] args){
        C c = new C();
        C.meth1();
        C.meth2();
        // C.meth3(); --> can not access private methods
        C.meth4();
    }
}
```

Output

```
PS C:\Users\Lenovo\OneDrive\Desktop\500082715\OOPS\Practice> javac -d . C.java
PS C:\Users\Lenovo\OneDrive\Desktop\500082715\OOPS\Practice> java p.C
This is public method
This is protected method
This is default method
```

Code

```
package q;  
import p.A;  
  
public class B{  
    Run | Debug  
    public static void main(String[] args){  
        A a = new A();  
        A.meth1();  
        // A.meth2(); --> can not access protected methods  
        // A.meth3(); --> can not access private methods  
        // A.meth4(); --> can not access default methods  
    }  
}
```

Output

```
PS C:\Users\Lenovo\OneDrive\Desktop\500082715\OOPS\Practice> javac -d . B.java  
PS C:\Users\Lenovo\OneDrive\Desktop\500082715\OOPS\Practice> java q.B  
This is public method
```

Code

```
package q;  
import p.A;  
  
public class D extends A{  
    Run | Debug  
    public static void main(String[] args){  
        D a = new D();  
        D.meth1();  
        D.meth2();  
        // D.meth3(); --> can not access private methods  
        // D.meth4(); --> can not access default methods  
    }  
}
```

Output

```
PS C:\Users\Lenovo\OneDrive\Desktop\500082715\OOPS\Practice> javac -d . D.java  
PS C:\Users\Lenovo\OneDrive\Desktop\500082715\OOPS\Practice> java q.D  
This is public method  
This is protected method
```