R.Pradeep Kumar

Isoft Training : Java morning batch(9:30 to 11:30)

This Assignment consists of Programs relating to Packages and 4 access modifiers in Java .

Package Program :

Program 1:

**package** pack;

**public** **class** User

{

**private** **int** id;

**private** String name;

**private** String password;

**private** String email;

**private** String sex;

**private** String country;

**public** **void** setId(**int** id)

{

**this**.id=id;

}

**public** **int** getId()

{

**return** id;

}

**public** String getName() {

**return** name;

}

**public** **void** setName(String name) {

**this**.name = name;

}

**public** String getPassword() {

**return** password;

}

**public** **void** setPassword(String password) {

**this**.password = password;

}

**public** String getEmail() {

**return** email;

}

**public** **void** setEmail(String email) {

**this**.email = email;

}

**public** String getSex() {

**return** sex;

}

**public** **void** setSex(String sex) {

**this**.sex = sex;

}

**public** String getCountry() {

**return** country;

}

**public** **void** setCountry(String country) {

**this**.country = country;

}

}

**package** mypack;

**import** pack.User;

**import** java.io.\*;

**public** **class** UserDAO

{

**public** **static** **void** main(String args[])

{

User a = **new** User();

a.setId(10);

a.setName("pradeep");

a.setPassword("prem");

a.setEmail("prem@gmail.com");

a.setSex("M");

a.setCountry("thailand");

a.getEmail();

a.getSex();

a.getCountry();

System.***out***.println(a.getId());

System.***out***.println(a.getName());

System.***out***.println(a.getPassword());

System.***out***.println(a.getEmail());

System.***out***.println(a.getSex());

System.***out***.println(a.getCountry());

}

}

--------------------------------------------------------------

Access Specifiers :

Private :

The private access modifier is accessible only within the class.

**class** A

{

**private** **int** data=40;

**private** **void** msg(){System.out.println("Hello java");}

}

**public** **class** Simple

{

**public** **static** **void** main(String args[]){

   A obj=**new** A();

   System.out.println(obj.data);

   obj.msg();

   }

}

The above program does not compile .

The private access modifier is accessible only within the class.

**package** ttt;

**public** **class** pg2

{

**private** **int** id;

**private** String name;

**private** String password;

**private** String email;

**private** String sex;

**private** String country;

**public** **void** setId(**int** id)

{

**this**.id=id;

}

**public** **int** getId()

{

**return** id;

}

**public** String getName() {

**return** name;

}

**public** **void** setName(String name) {

**this**.name = name;

}

**public** String getPassword() {

**return** password;

}

**public** **void** setPassword(String password) {

**this**.password = password;

}

**public** String getEmail() {

**return** email;

}

**public** **void** setEmail(String email) {

**this**.email = email;

}

**public** String getSex() {

**return** sex;

}

**public** **void** setSex(String sex) {

**this**.sex = sex;

}

**public** String getCountry() {

**return** country;

}

**public** **void** setCountry(String country) {

**this**.country = country;

}

**public** **static** **void** main(String args[])

{

pg2 a = **new** pg2();

a.setId(10);

a.setName("pradeep");

a.setPassword("prem");

a.setEmail("prem@gmail.com");

a.setSex("M");

a.setCountry("thailand");

a.getEmail();

a.getSex();

a.getCountry();

System.***out***.println(a.getId());

System.***out***.println(a.getName());

System.***out***.println(a.getPassword());

System.***out***.println(a.getEmail());

System.***out***.println(a.getSex());

System.***out***.println(a.getCountry());

}

}

Output:

10

pradeep

prem

prem@gmail.com

M

thailand

**Protected :**

The **protected access modifier** is accessible within package and outside the package but through inheritance only.

**package** pack;

**public** **class** A{

**protected** **void** msg(){System.out.println("Hello");}

}

**package** mypack;

**import** pack.\*;

**class** B **extends** A{

**public** **static** **void** main(String args[]){

   B obj = **new** B();

  obj.msg();

  }

}

Output:

Hello

**Default :**

If you don't use any modifier, it is treated as **default** by default. The default modifier is accessible only within package. It cannot be accessed from outside the package.

**package pack;**

**class A**

**{ void msg(){System.out.println("Hello");}**

**}**

**package mypack;**

**import pack.\*;**

**class B{**

**public static void main(String args[]){**

**A obj = new A();//Compile Time Error**

**obj.msg();//Compile Time Error**

**}**

**}**

**Output:**

**Compilation error**

**The above program does not compile since default access modifier is accessible only with in the same package.**

**Below program containing Default access modifier compiles and executes properly :**

**package** ttt;

**class** Z

{

**void** msg(){System.***out***.println("Hello");}

}

**public** **class** pg1{

**public** **static** **void** main(String args[]){

Z obj = **new** Z();

obj.msg();

}

}

**Output:**

Hello

**Public Access Modifier :**

The **public access modifier** is accessible everywhere. It has the widest scope among all other modifiers.

**package pack;**

**public class A{**

**public void msg(){System.out.println("Hello");}**

**}**

**package mypack;**

**import pack.\*;**

**class B{**

**public static void main(String args[]){**

**A obj = new A();**

**obj.msg();**

**}**

**}**

**Output:**

**Hello**