1. **Multilevel Inheritance:**

**package** multilevel;

**public** **class** whatsappv1

{

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

**private** String name;

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

{

**return** id;

}

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

{

**this**.id = id;

}

**public** String getName()

{

**return** name;

}

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

{

**this**.name = name;

}

**public** **void** sendmsg()

{

System.***out***.println("sendmsg() in whatsappv1");

}

}

**public** **class** whatsappv2 **extends** whatsappv1

{

**public** **void** sendvoicemsg()

{

System.***out***.println("sendvoicemsg() in whatsappv2");

}

}

**public** **class** whatsappv3 **extends** whatsappv2

{

**public** **void** vediocall()

{

System.***out***.println("vediocall() in whatsappv3");

}

}

**public** **class** mainclass

{

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

{

whatsappv3 w=**new** whatsappv3();

w.sendmsg();

w.sendvoicemsg();

w.vediocall();

w.setName("sharada");

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

w.setId(565);

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

}

}

o/p:

sendmsg() in whatsappv1

sendvoicemsg() in whatsappv2

vediocall() in whatsappv3

sharada

565

1. Hierarchical Inheritance:

**package** Demo;

**public** **class** Number

{

**public** **int** v1=20;

**protected** **int** v2=40;

**public** **void** Natural()

{

System.***out***.println("this natural method in parent class");

}

}

**public** **class** odd **extends** Number

{

**public** **int** v=200;

**public** **void** show()

{

System.***out***.println("this is show method in subclass");

}

}

**public** **class** even **extends** Number

{

**double** d=13400;

**public** **void** test()

{

System.***out***.println("this is test method in subclass");

}

}

**public** **class** mainclass1 {

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

{

even e=**new** even();

e.test();

odd o=**new** odd();

o.show();

System.***out***.println(e.v1);

System.***out***.println(o.v2);

System.***out***.println(o.v);

System.***out***.println(e.d);

}

}

o/p:

this is test method in subclass

this is show method in subclass

20

40

200

13400.0

3). Single Inheritance:

**package** Demo;

**public** **class** inheritance

{

**double** d=20000;

**public** **void** test()

{

System.***out***.println("this is test method in parent class");

}

}

**public** **class** inheritance2 **extends** inheritance

{

**int** n=200;

**public** **void** show()

{

System.***out***.println("this is show method in child class");

}

}

**public** **class** mainclass

{

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

{

inheritance2 i=**new** inheritance2();

i.test();

i.show();

System.***out***.println(i.d);

System.***out***.println(i.n);

}

}

o/p:

this is test method in parent class

this is show method in child class

20000.0

200

4)**multiple Inheritance:**

**package** interface1;

**abstract** **public** **interface** Run1

{

**abstract** **public** **void** display();

}

**public** **interface** Run2

{

**abstract** **public** **void** count();

}

**public** **class** sample **implements** Run2,Run1

{

@Override

**public** **void** count()

{

System.***out***.println("count() in Run2 interface");

}

@Override

**public** **void** display()

{

System.***out***.println("display() in Run1 interface");

}

}

**public** **class** mainclass {

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

sample s=**new** sample();

s.count();

s.display();

}

}

o/p:

count() in Run2 interface

display() in Run1 interface

5) **Access specifiers:**

**package** AccessSpecifier;

**public** **class** module {

**public** **int** a=59;

**protected** **double** b=60000;

**float** ab=4.4f;

**private** String s="sharada";

**public** String getS()

{

**return** s;

}

**public** **void** setS(String s)

{

**this**.s = s;

}

**public** **void** test()

{

System.***out***.println("helloooo");

}

}

**public** **class** sample

{

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

{

module m=**new** module();

m.test();

m.setS("sharada");

System.***out***.println(m.getS());

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

System.***out***.println(m.b);

System.***out***.println(m.ab);

}

}

O/p:

helloooo

sharada

59

60000.0

4.4