1)By extending Thread class:

Ex:1

**package** thread4;

**public** **class** sample **extends** Thread

{

Thread abc;

**private** String stringname;

sample(String name)

{

stringname=name;

}

@Override

**public** **void** run()

{

System.***out***.println("thread running"+stringname);

**for**(**int** i=0;i<4;i++)

{

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

System.***out***.println(stringname);

**try**

{

Thread.*sleep*(1000); }

**catch**(InterruptedException e)

{

System.***out***.println("thread has been interrupted");

}

}}

**public** **void** start()

{

System.***out***.println("thread started");

**if**(abc==**null**)

{

abc=**new** Thread(**this**,stringname);

abc.start();

}

}

}

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

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

sample str1=**new** sample("sharada");

str1.start();

sample str2=**new** sample("sharuu");

str2.start();

}

o/p:

thread started

thread started

thread runningsharada

0

sharada

thread runningsharuu

0

sharuu

1

sharada

1

sharuu

2

sharada

2

sharuu

3

sharada

3

sharuu

ex:2

**package** threads;

**public** **class** main1 **extends** Thread

{

@Override

**public** **void** run()

{

**for**(**int** i=1;i<3;i++)

{

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

}

}

}

**public** **class** main2 {

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

main1 t1=**new** main1();

main1 t2=**new** main1();

t1.start();

t2.start();

}

2)By implementing Runnable interface:

**package** thread3;

**public** **class** teacher **implements** Runnable

{

Thread abc;

**private** String stringname;

teacher(String name)

{

stringname=name;

}

@Override

**public** **void** run()

{

System.***out***.println("thread running"+stringname);

**for**(**int** i=0;i<4;i++)

{

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

System.***out***.println(stringname);

**try**

{

Thread.*sleep*(1000); }

**catch**(InterruptedException e)

{

System.***out***.println("thread has been interrupted");

}

}}

**public** **void** start()

{

System.***out***.println("thread started");

**if**(abc==**null**)

{

abc=**new** Thread(**this**,stringname);

abc.start();

}

}

}

**public** **class** main1

{

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

{

teacher str1=**new** teacher("sharada");

str1.start();

teacher str2=**new** teacher("sharuu");

str2.start();

}

}

o/p:

thread started

thread started

thread runningsharada

0

sharada

thread runningsharuu

0

sharuu

1

sharuu

1

sharada

2

2

sharada

sharuu

3

sharuu

3

sharada

Ex:2

**package** threads2;

**public** **class** main1 **implements** Runnable

{

@Override

**public** **void** run()

{

**for**(**int** i=1;i<3;i++)

{

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

}

}

**public** **void** start()

{

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

}

}

**public** **class** main2 {

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

main1 t1=**new** main1();

main1 t2=**new** main1();

t1.start();

t2.start();

}

}

o/p:

hello

hello

3) extend Thread vs implement Runnable:

* When we extend Thread class, we can’t extend any other class even we require and When we implement Runnable, we can save a space for our class to extend any other class in future or now.
* When we extend Thread class, each of our thread creates unique object and associate with it. When we implements Runnable, it shares the same object to multiple threads.