

* Explain Thread Create Method

=> There are two method to create a thread.

1) By extending thread class

2) By implementing Runnable interface.

1 By extending thread class:

Thread class provides a different method to perform different operations.

Syntax :

```
class class_name extends Thread
```

Ex.

```
class F extends Thread
```

```
{
```

```
    public void run() {
```

```
        System.out.println("Thread");
```

```
    }
```

```

public static void main
    (String, args[])
{
    F obj = new F();
    obj.start();
}
}

```

2 By implementing Runnable interface.

⇒ The runnable interface can implement the thread.

Syntax:

```

class class implements
    name
        Runnable

```

Ex.

```

class F implements Runnable
{
    public void run()
    {
        System.out.println("Thread");
    }
}

```

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

```
{
```

```
    F obj = new F();
```

```
    Thread t1 = new Thread(obj);
```

```
    t1.start();
```

```
}
```

```
}
```

* Explain different methods of Thread.

=> This are the different methods of Thread.

1 void run(): Used to perform action of a thread.

2 void start(): Starts the execution of a thread.

3 int getPriority(): Returns the Priority of a thread.

4 int setPriority(): Changes the Priority of a thread.

5 `int getId()`: Returns id of the thread.

6 `String getName()`: Returns the name of the thread.

7 `String setName()`: Changes the name of the thread.

8 `Thread.State.getState()`: Returns the state of the thread.

Ex.

```
import java.lang.*;
```

```
class java extends Thread
```

```
{  
    public void run()
```

```
{  
    System.out.println("Thread");
```

```
}
```

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

```
{
```

```
    System.out.println("Current  
    thread name" + Thread.  
    currentThread().getName());
```

```
System.out.println("Current  
thread Priority " + Thread.currentThread().  
getPriority());
```

```
Thread t1 = new Thread();
```

```
System.out.println("Thread  
Priority " + t1.getPriority());
```

```
t1.setPriority(2);
```

```
System.out.println("Thread  
Priority " + t1.getPriority());
```

```
}
```

```
}
```

* Explain Synchronization of Thread.

=> Synchronization of thread is used to control multithreading.

~~Using~~ Using Synchronization, we can access thread one by one and in serial manner.

There are three methods to perform thread synchronization.

1) By Using Synchronization Method

2) By Using Synchronization Block

3) By Using Static Synchronization

Ex.

```
class Java
```

```
{
```

```
    synchronized void print(int n)
```

```
    {
```

```
        for (int i = 1; i <= 5; i++)
```

```
        {
```

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

```
            try
```

```
            {
```

```
                Thread.sleep(400);
```

```
            }
```

```
        } catch (Exception e)
```

```
        {
```

```
            System.out.println(e);
```

```
        }
```

```
    }
```

```
}
```

```
}
```

```
class Thread1 extends Thread
```

```
{
```

```
    Java J;
```

```
    Thread1 (Java J);
```

```
    this.J = J;
```

```
    public void run ()
```

```
    {
```

```
        J.print(5);
```

```
    }
```

```
}
```

```
class Thread2 extends Thread
```

```
{
```

```
    Java J;
```

```
    Thread2 (Java J);
```

```
    this.J = J;
```

```
    public void run ()
```

```
    {
```

```
        J.print(10);
```

```
    }
```

```
}
```

```
class Java1
```

```
{
```

```
    public static void main (String, args[])
```

```
    {
```

```
        Java obj = new Java ();
```

```
        Thread1 t1 = new Thread1 (obj);
```

```
        Thread2 t2 = new Thread2 (obj);
```

```
+1.start();
```

```
+2.start();
```

```
}
```

```
}
```

Brain Spot