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Thread Life Cycle

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Thread Life Cycle:

Thread has many different state through out its life.

1 Newborn State

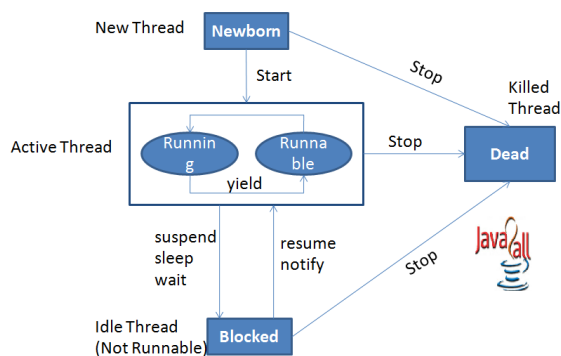
2 Runnable State

3 Running State

4 Blocked State

5 Dead State

Thread should be in any one state of above and it can be move from one state to another by different methods and ways.



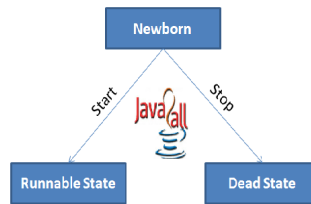
State transition diagram of a thread

1 Newborn State

When we create a thread it will be in Newborn State.

The thread is just created still its not running.

We can move it to running mode by invoking the start() method and it can be killed by using stop() method.

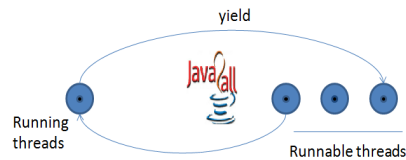


Scheduling a newborn thread

2 Runnable State

It means that thread is now ready for running and its waiting to give control.

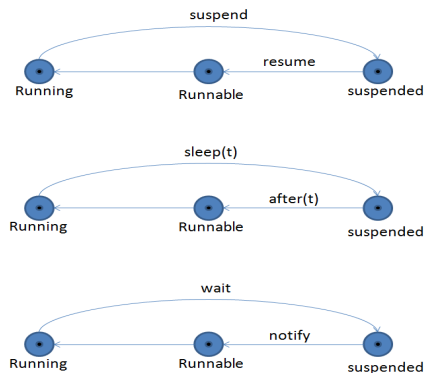
We can move control to another thread by `yield()` method.

Relinquishing control using `yield()` method

3 Running State

It means thread is in its execution mode because the control of cpu is given to that particular thread.

It can be move in three different situation from running mode.



These all are different methods which can be apply on running thread and how the state is changing and how we can come in our original previous state using different methods are shown in above figure.

4 Blocked State

A thread is called in Blocked State when it is not allowed to entering in Runnable State or Running State.

It happens when thread is in waiting mode, suspended or in sleeping mode.

5 Dead State

When a thread is completed executing its `run()` method the life cycle of that particular thread is end.

We can kill thread by invoking `stop()` method for that particular thread and send it to be in Dead State.

« The Main Thread

Creating Thread »