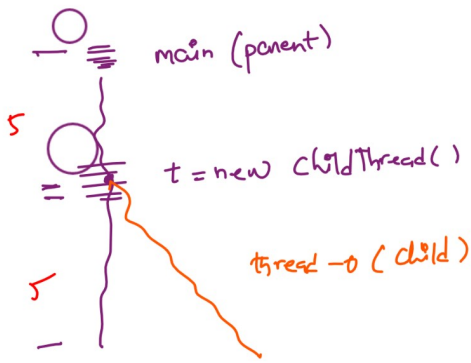


Yield

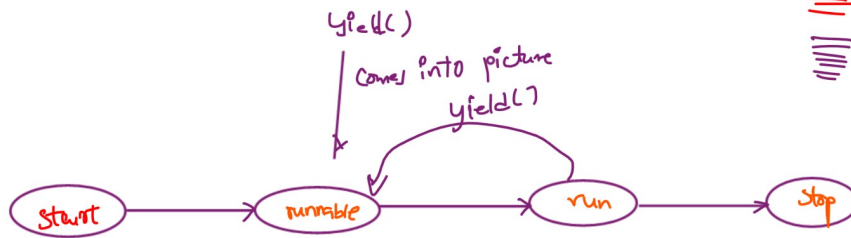
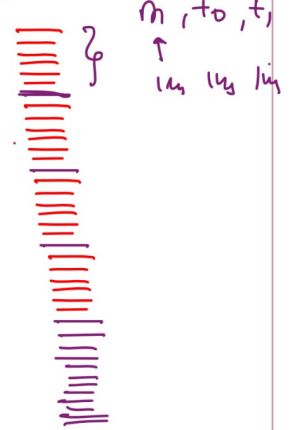


— main thread
— child-thread } same priority

Without Yield



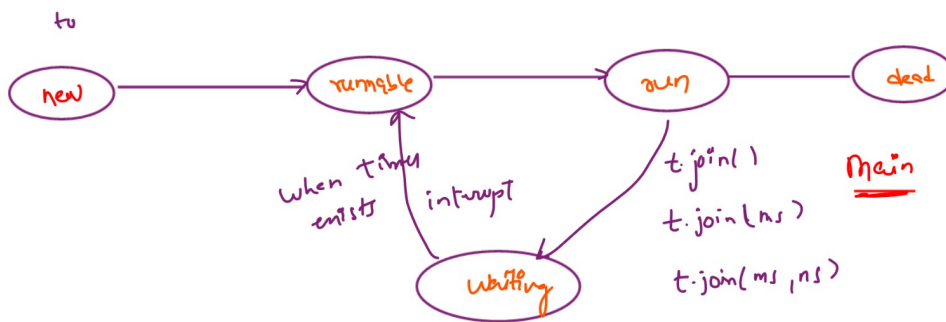
Yield



Notes:

- `yield()` is used to bring the currently executing thread from run state to runnable state, so that the processor can be utilized by some other threads of same priority
- In case if there are no other threads of same priority in runnable state then the current thread would keep executing even `yield()` is called
- `yield()` is a static method present inside Thread class

Join()



Notes:

- `join` method allows the current executing thread to go to waiting state until, the other thread finishes its execution

ex:

```
Downloading d = new Downloading();
d.start();
d.join();
```

→ The thread executing `d.join` statement will go to waiting state till the thread (Thread-0), completes its execution

[i.e. Main thread goes to waiting state]

→ Once the thread (d), completes its execution then the main thread will come out of waiting state

[i.e. Comes from waiting state to runnable state]

`d.join()` → infinite wait

`d.join(ms)` 1000-1sec
ms

`d.join(ms, ns)` 10000

1000 flow
1-2(1.1)

→ `d.join(5000)`

→ The current executing thread (main) would go to waiting state for maximum of 5sec (5000 milliseconds)

→ If the thread d doesn't finish its execution within 5000ms, the current thread would come from waiting state to runnable state

→ In case if the thread d finishes its execution within 1000ms then current thread comes from waiting state to runnable state even it has left with 4000ms, i.e. it won't be sleeping until the last microsecond

Note

→ `join()` throws `InterruptedException`, because it is a checked exception

→ It is compulsory that caller method [main()] needs to handle the exception (or) catch the exception