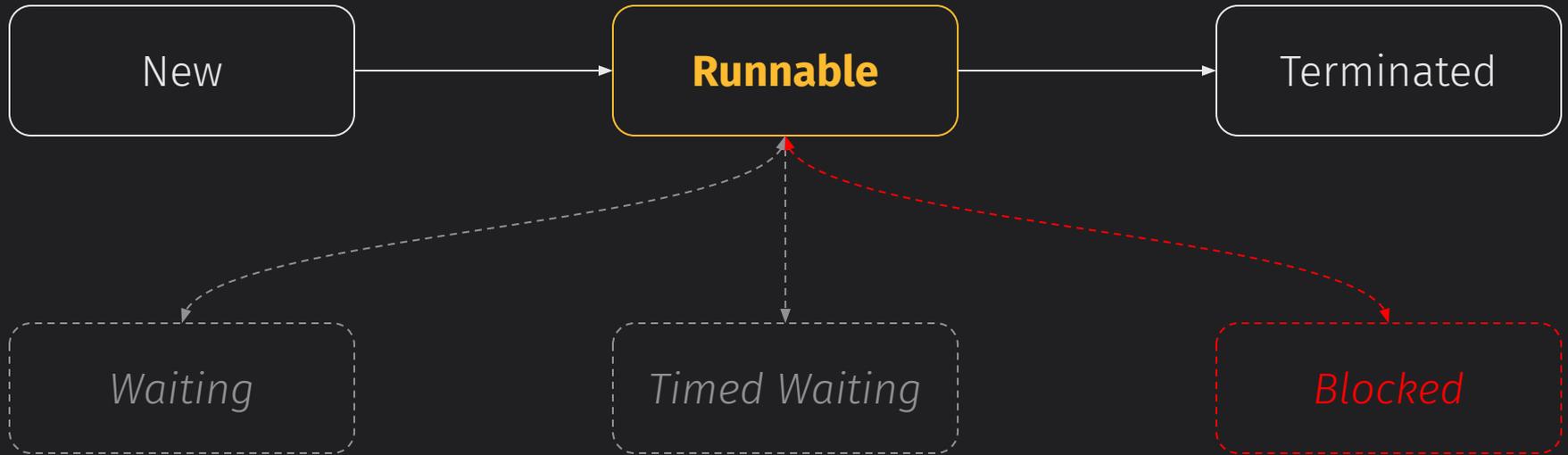


Thread Lifecycle

CS 272 Software Development

Thread States



<https://www.cs.usfca.edu/~cs272/javadoc/api/java.base/java/lang/Thread.State.html>



CODE (SIMPLIFIED)

```
public ThreadStateDemo() {
    parent = Thread.currentThread();
    worker = new Worker();

    worker.start();
    calculate(500);

    worker.join();
}

private class Worker extends Thread {
    public void run() {
        calculate(1000);
    }
}
```

PARENT THREAD

WORKER THREAD



CODE (SIMPLIFIED)

```
public ThreadStateDemo() {  
    parent = Thread.currentThread();  
    worker = new Worker();  
  
    worker.start();  
    calculate(500);  
  
    worker.join();  
}  
  
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    }  
}
```

PARENT THREAD

RUNNABLE

|

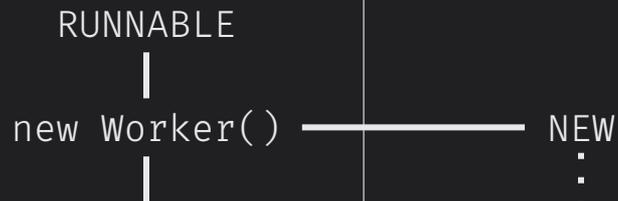
WORKER THREAD



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WORKER THREAD



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PARENT THREAD

```
RUNNABLE
|
new Worker()
|
worker.start()
|
```

WORKER THREAD

```
NEW
⋮
RUNNABLE
|
```



CODE (SIMPLIFIED)

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WORKER THREAD

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⋮
RUNNABLE
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PARENT THREAD

```
RUNNABLE
|
new Worker()
|
worker.start()
|
calc(500)
|
worker.join()
|
WAITING
|
⋮
```

WORKER THREAD

```
NEW
⋮
RUNNABLE
|
calc(1000)
|
⋮
```



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PARENT THREAD

RUNNABLE
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new Worker() —————
|
worker.start()
|
calc(500)
|
worker.join()
|
WAITING
|
RUNNABLE —————
|
TERMINATED

WORKER THREAD

NEW
|
RUNNABLE
|
calc(1000)
|
TERMINATED



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worker.start()
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WAITING
|
RUNNABLE —————
|
TERMINATED

WORKER THREAD

NEW
|
RUNNABLE
|
calc(1000)
|
TERMINATED





CHANGE THE WORLD FROM HERE