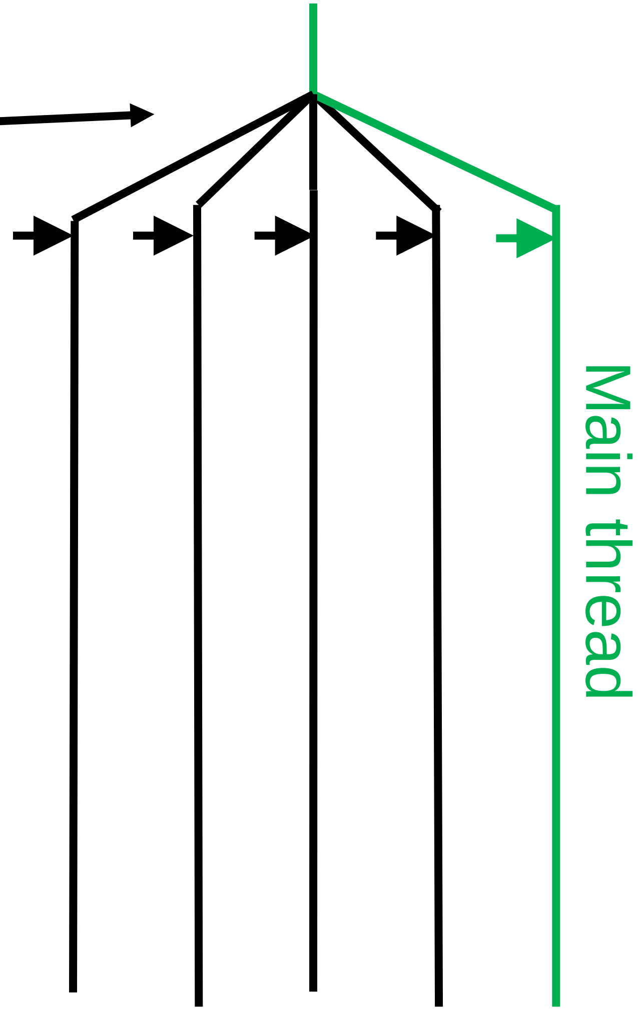
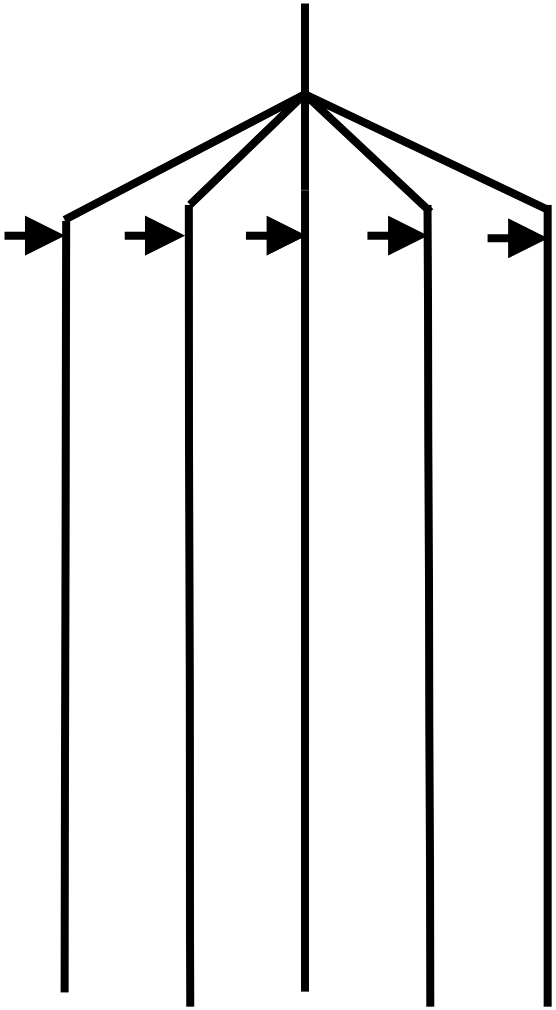
Executor Service

```
ExecutorService tpe =
Executors.newFixedThreadPool(4);
```



Executor Service



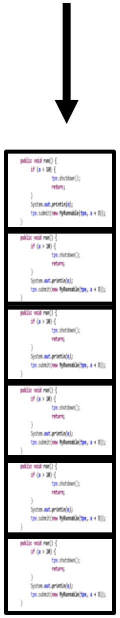
```
public class MyRunnable implements Runnable {
      int a;
      ExecutorService tpe;

      public MyRunnable(ExecutorService tpe, int a) {
            this.a = a;
            this.tpe = tpe;
      }

      @Override
      public void run() {
            if (a > 10) {
                        tpe.shutdown();
                        return;
            }
            System.out.println(a);
            tpe.submit(new MyRunnable(tpe, a + 3));
      }
}
```

Executor Service

```
tpe.submit(new MyRunnable(tpe, 0));
tpe.submit(new MyRunnable(tpe, 1));
tpe.submit(new MyRunnable(tpe, 2));
......
```



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public void run() {
    if (a > 10) {
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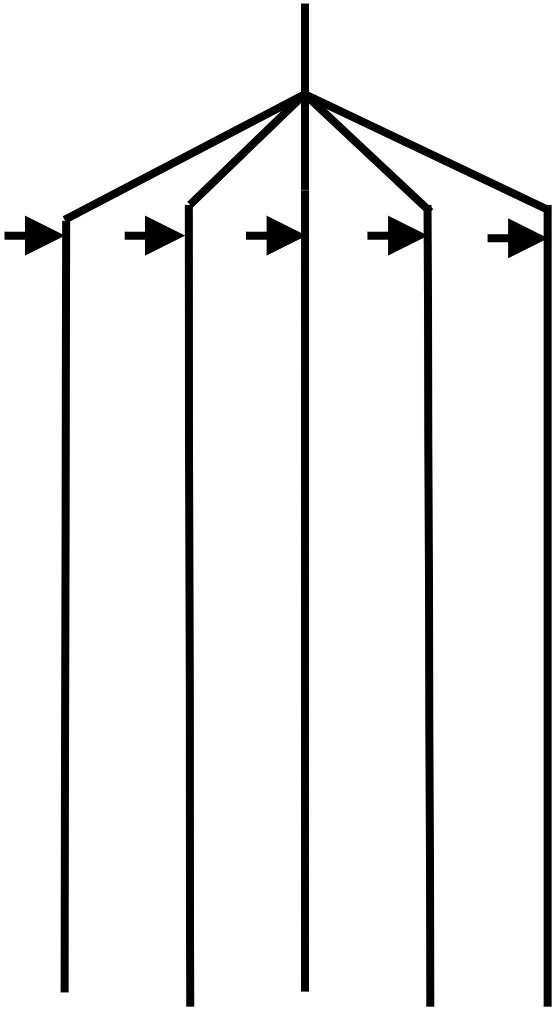
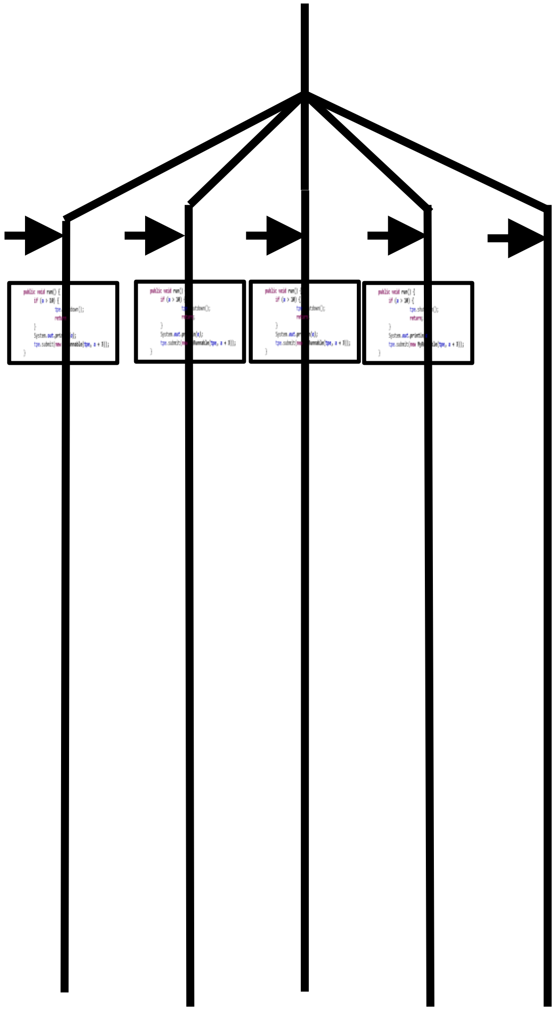


Executor Service



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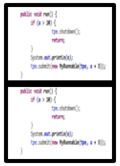

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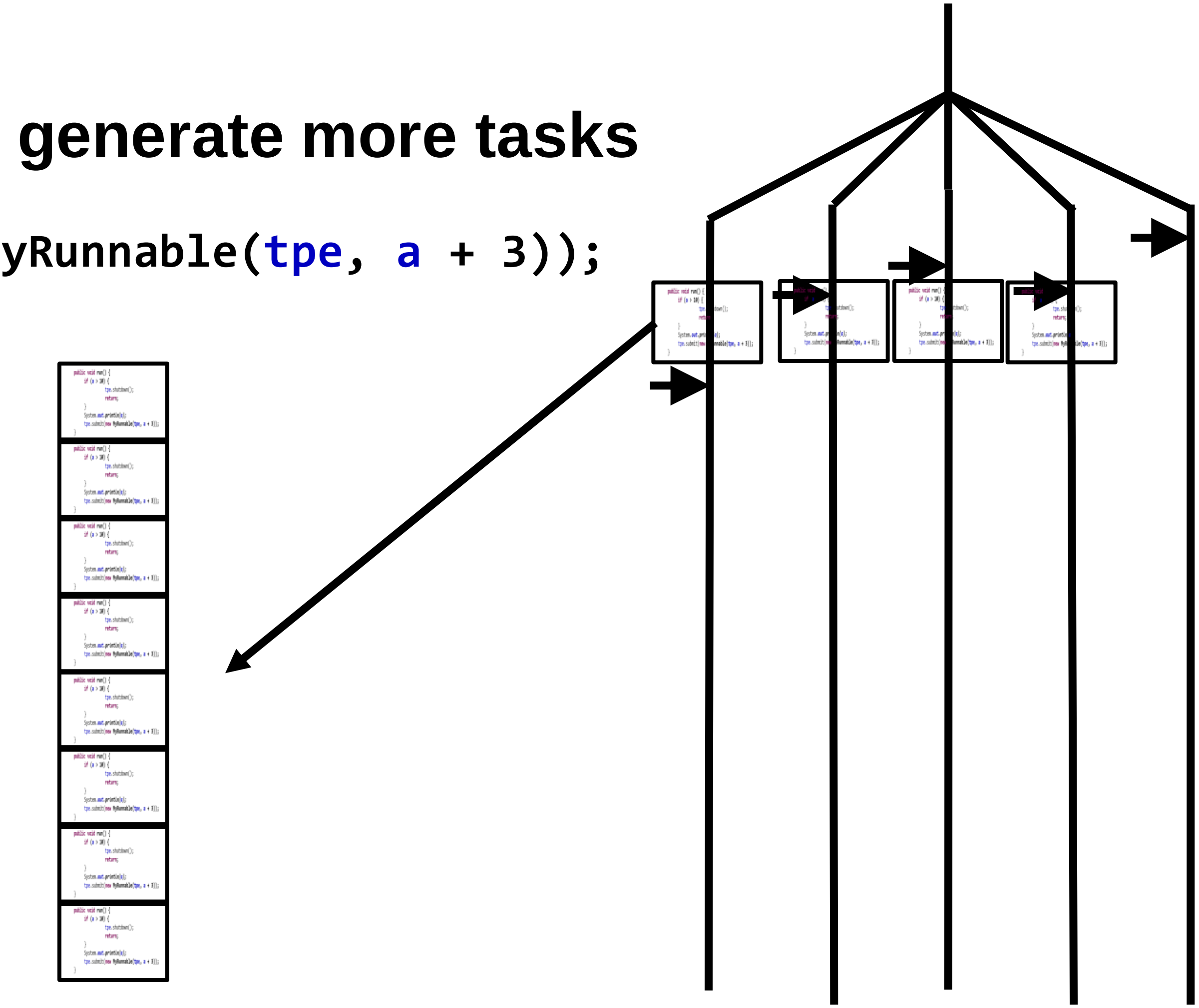
```

Executor Service

Tasks can generate more tasks

```
tpe.submit(new MyRunnable(tpe, a + 3));
```



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            return;
    }
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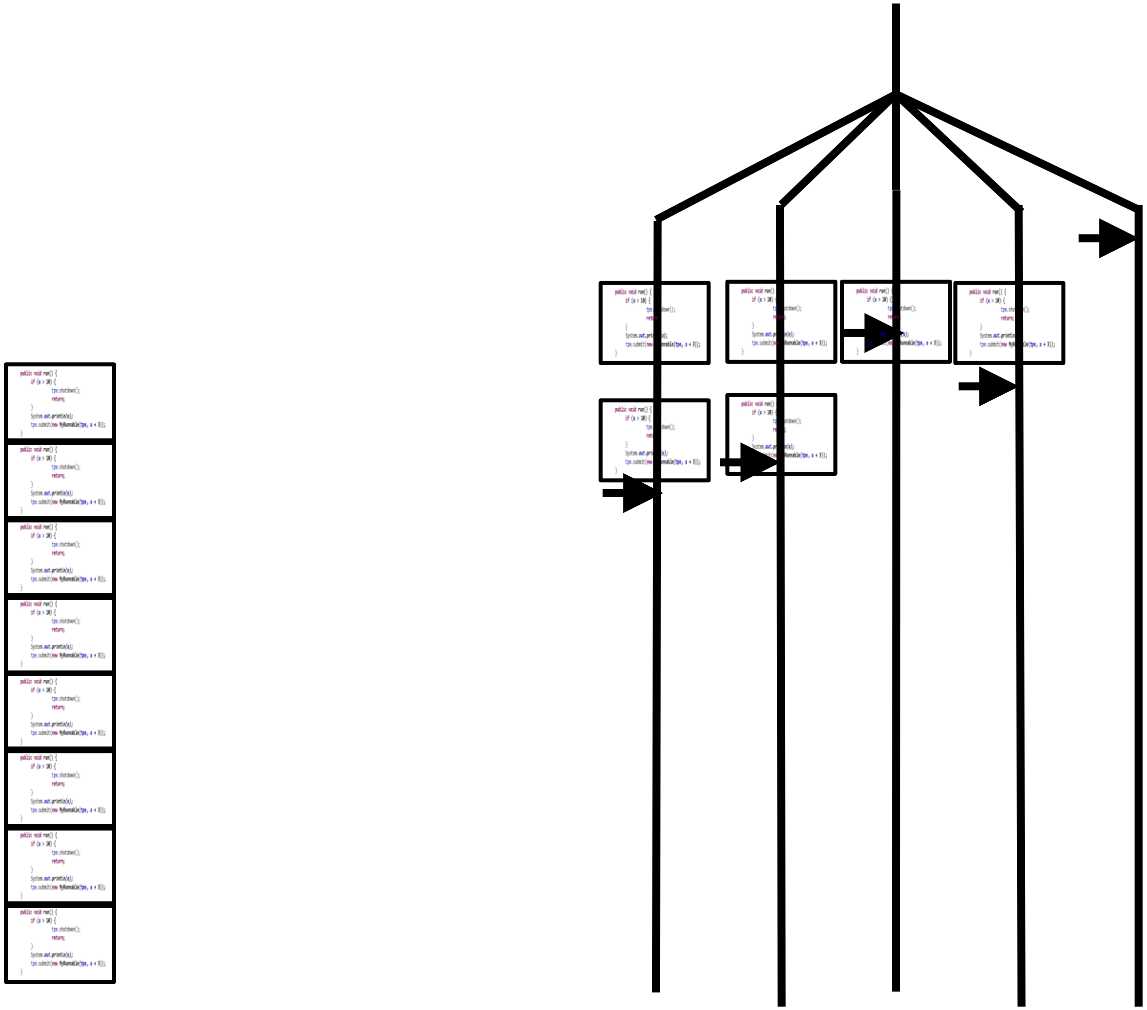
Executor Service



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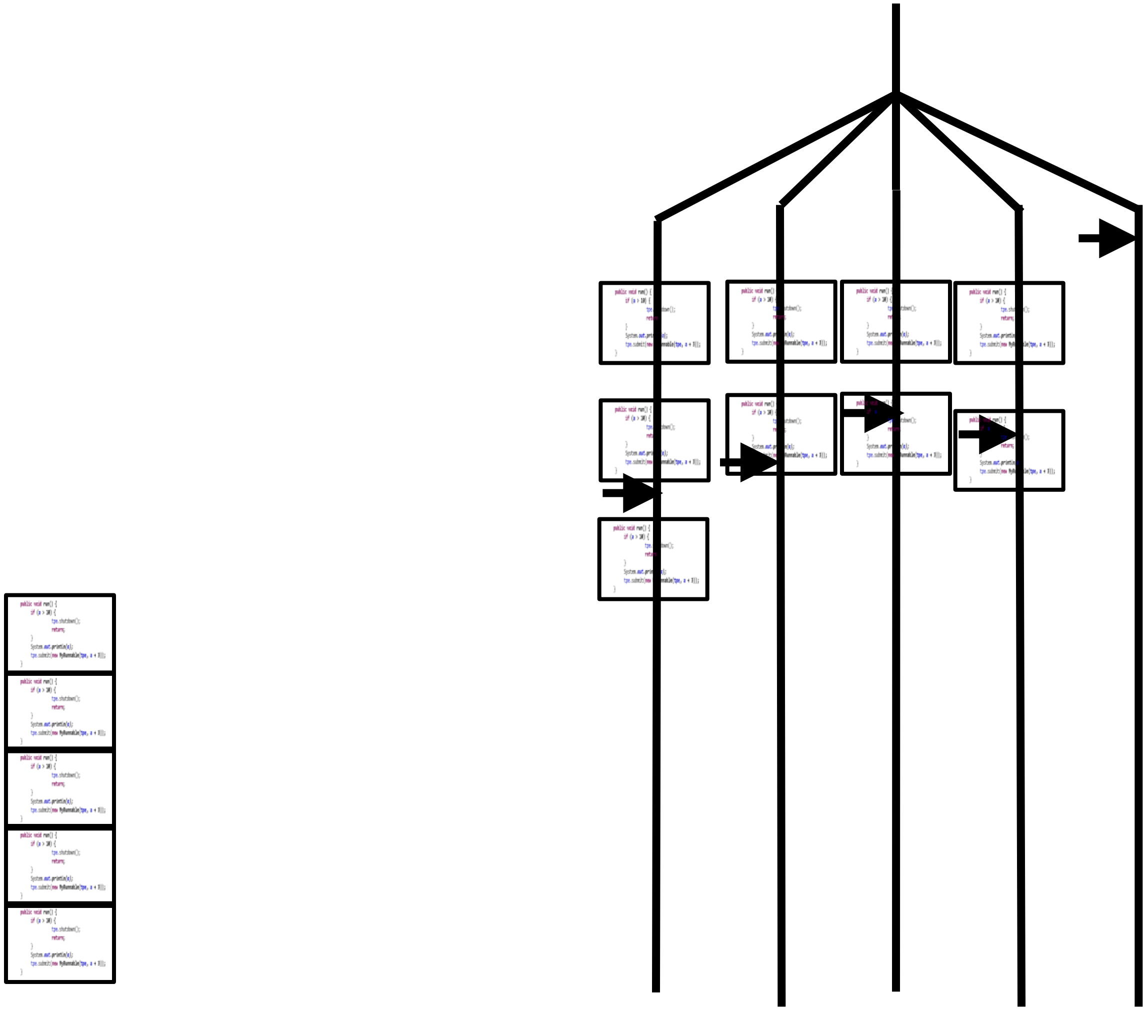
Executor Service



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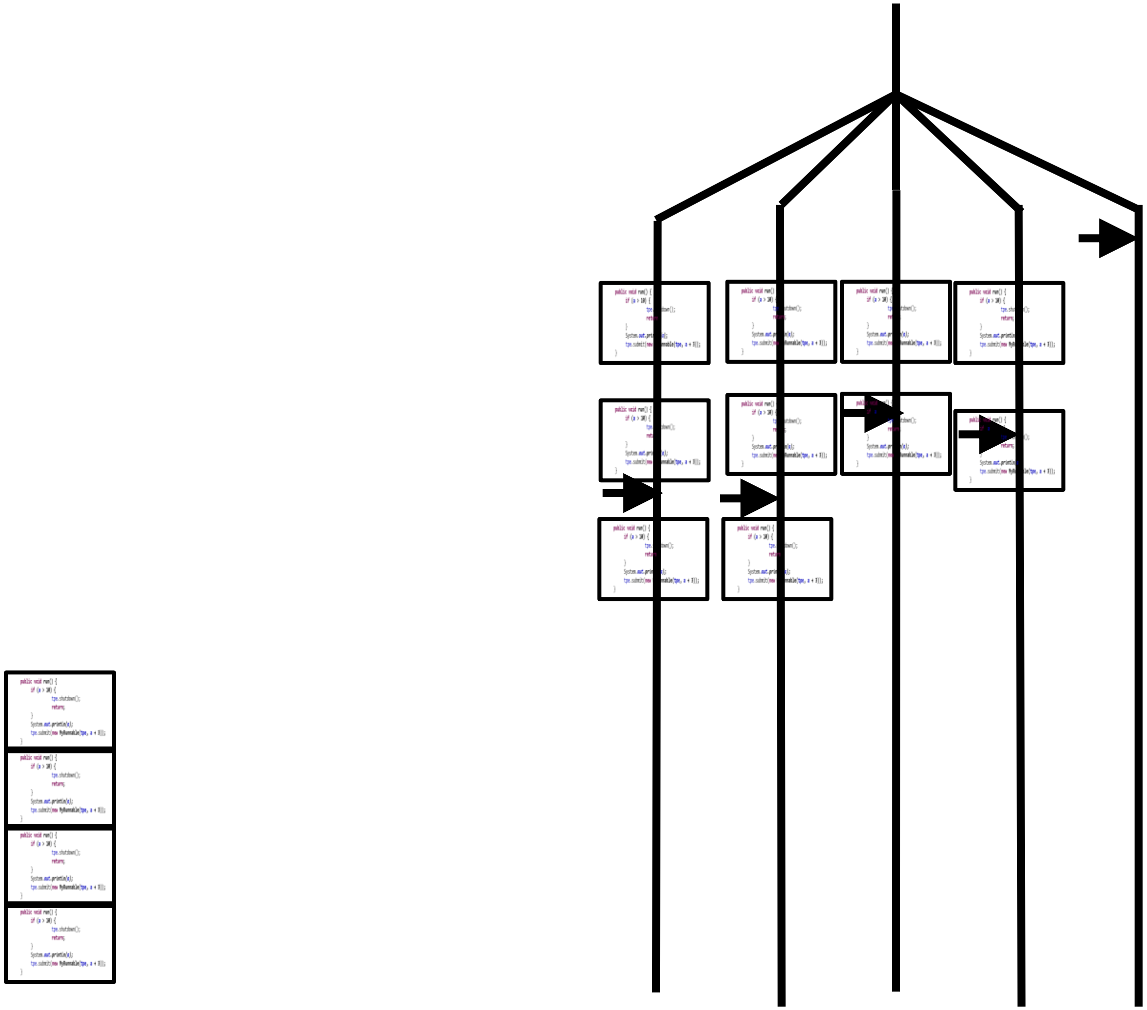

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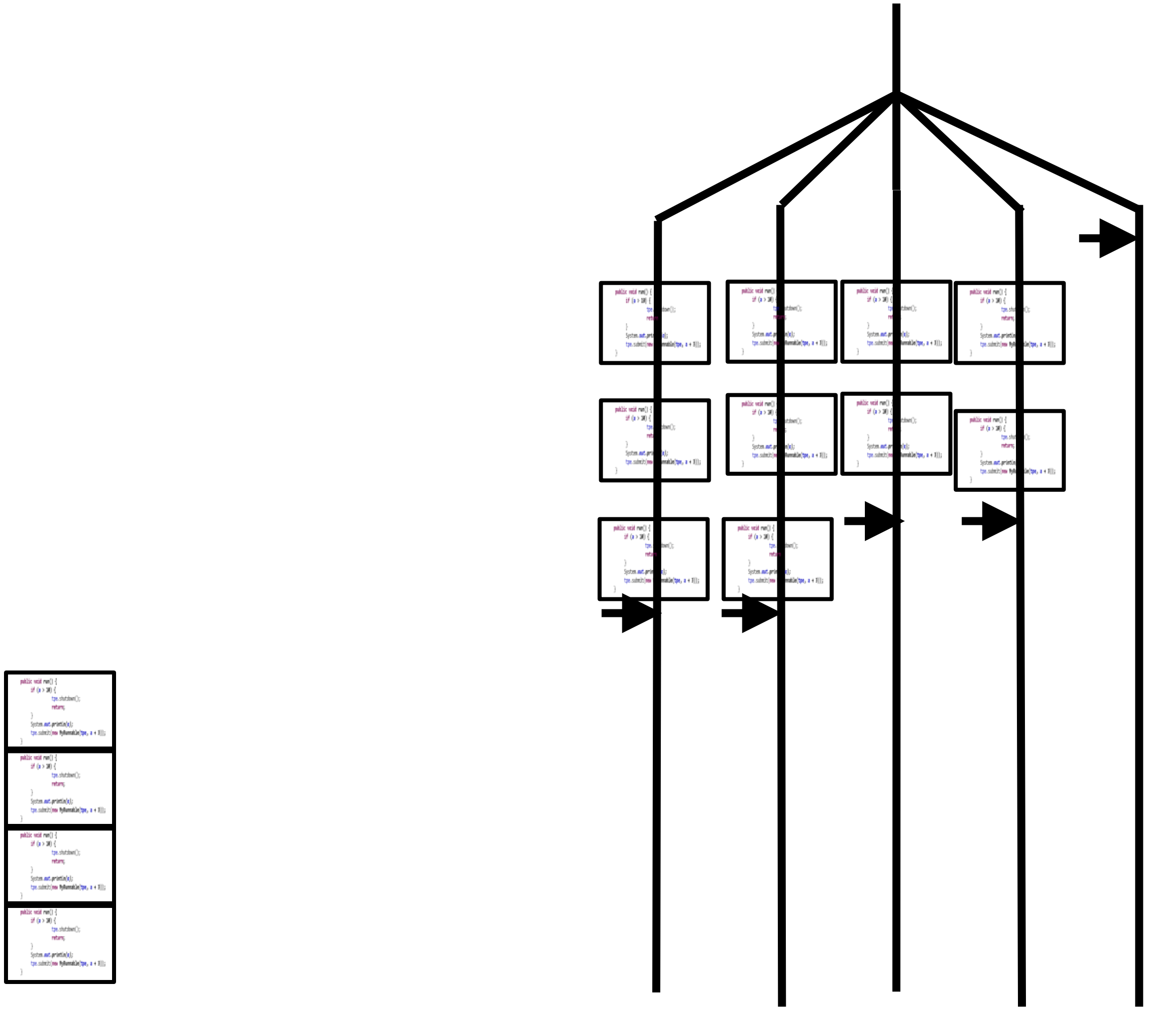

```
public void run() {
    if (a > 10) {
        tpe.shutdown();
        return;
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    System.out.println(a);
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```

Executor Service

When do you stop the threads?
Depends on the problem.
Sometimes one solution is enough.
But some problems might not have solutsions.

```
tpe.shutdown();
```