

# Parallelitaet in Java: Cheat Sheet

Runnable:


```
public final class StringTask implements Runnable {
    int id;
    public StringTask(int id) {
        this.id = id;
    }
    public void run() {
        // do calculation
    }
}

ExecutorService pool =
    Executors.newFixedThreadPool(4);
for(int i = 0; i < 10; i++){
    pool.execute(new StringTask(i));
}

pool.shutdown();
executor.awaitTermination();
```

Futures und Callables:

```
public final class StringTask implements Callable<String> {
    int id;
    public StringTask(int id) {
        this.id = id;
    }
    public String call() {
        return "Run " + id;
    }
}
```



Ergebnisrueckgabe mit Futures:

```
public static void main(String[] args) throws
    InterruptedException, ExecutionException {
    ExecutorService pool = Executors.newFixedThreadPool(4);
    List<Future<String>> futures = new ArrayList<Future<String>>();
    for(int i = 0; i < 10; i++) {
        futures.add(pool.submit(new StringTask(i)));
    }
    for(Future<String> future : futures){
        String result = future.get();
        System.out.println(result);
    }
    pool.shutdown();
}
```