

1. When to use callbacks

- For **simple synchronous computations**, a blocking call is simpler.
- For **CPU-intensive tasks in parallel**, sometimes **CompletableFuture with join()** or **parallel streams** is cleaner.

2. Future


You must manage the response blocking by yourself, do not support callback.

<code>get()</code>	Waits (blocks) until computation completes and returns result
<code>cancel()</code>	Cancel the computation
<code>isDone()</code>	Check if the computation is finished
<code>isCancelled()</code>	Check if it was cancelled

3. CompletableFuture

Have callback for long CPU-intensive task, manage thenApply (process), thenAccept (success), exception(Error) => Easy to manage chain.

java

 Copy code

```
CompletableFuture<Orders> ordersFuture =  
    CompletableFuture.supplyAsync(() -> fetchUser())  
        .thenApply(user -> fetchOrders(user));  
  
// Later, get the value (blocking)  
Orders orders = ordersFuture.get(); // blocks until ready
```