Testing Coroutines

kotlinx-coroutines-test

How long will the following test take to run? A few milliseconds.

```kotlin
@Test
fun `registration should close automatically after timeout`() = runBlockingTest {
    val register = AutoCloseableRegistration(60.seconds)

    delay(55.seconds)
    register(playerOne)

    delay(5.1.seconds)
    shouldThrow<RegistrationClosedException> {
        register(playerTwo)
    }
}
```

Coroutines

recap

- suspend functions are asynchronous
- coroutines are cheap
- when calling blocking code, use a different dispatcher
- use structured concurrency to avoid resource leaks (coroutines)
- use structured concurrency to avoid useless resource usage (CPU)
- avoid mutable shared state
- if you must use mutable shared state, make sure it’s synchronized