

Reader: Testing Basics

Demo Course



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Reader: Testing Basics

Example reader for the demo course of Brightspacosaurus

1. Learning goals

Learning goals:

- Implement a small, well-tested pure function.
- Explain the arrange-act-assert pattern.

A short reference on the arrange-act-assert pattern for unit tests.

2. Arrange-Act-Assert

Most unit tests follow three phases:

1. **Arrange** — set up the object under test and any inputs.
2. **Act** — call the method being tested.
3. **Assert** — verify the result matches expectations.

3. Test flow

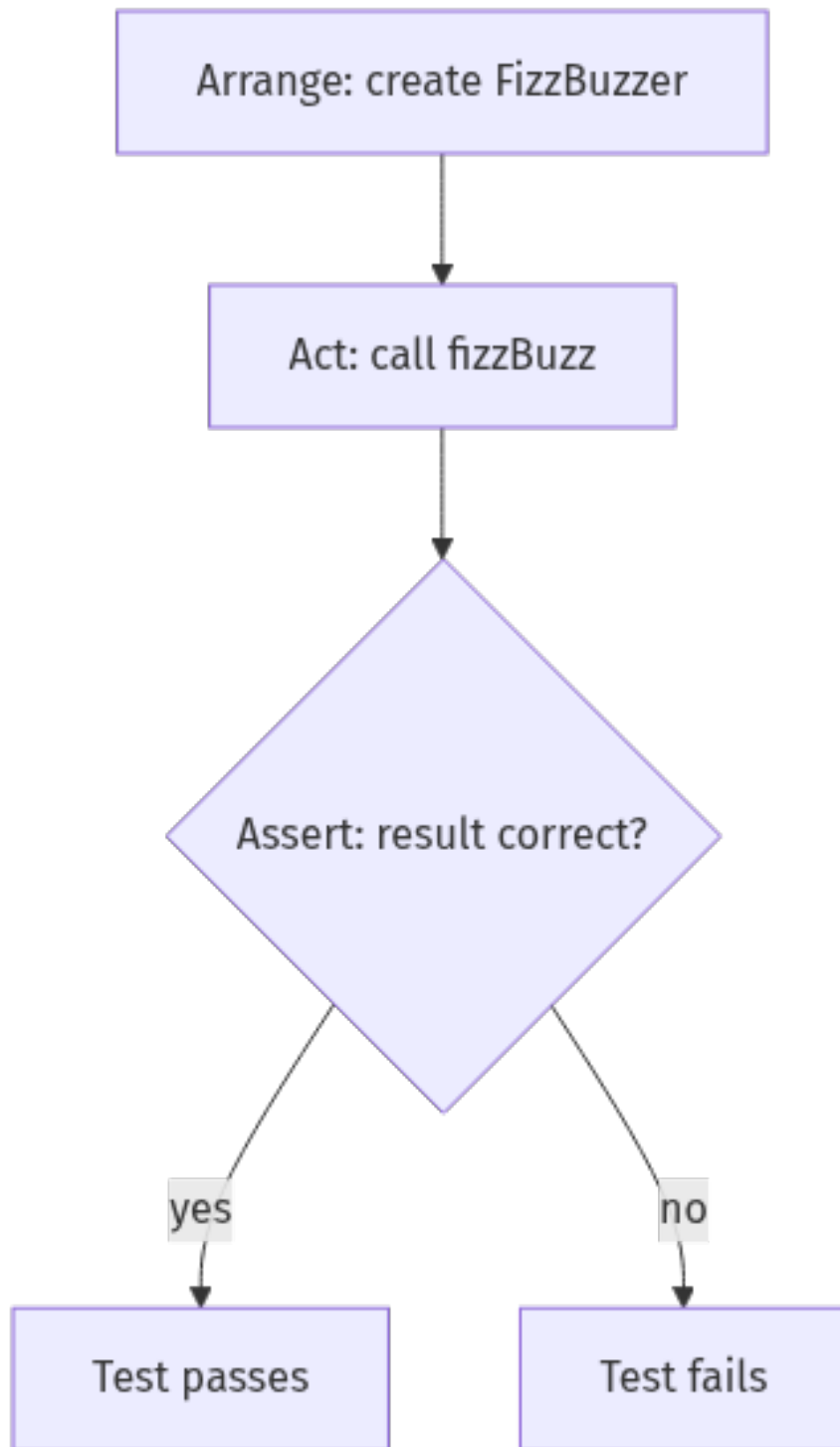
flowchart TD

A[Arrange: create FizzBuzzer] --> B[Act: call fizzBuzz]

B --> C{Assert: result correct?}

C -->|yes| D[Test passes]

C -->|no| E[Test fails]

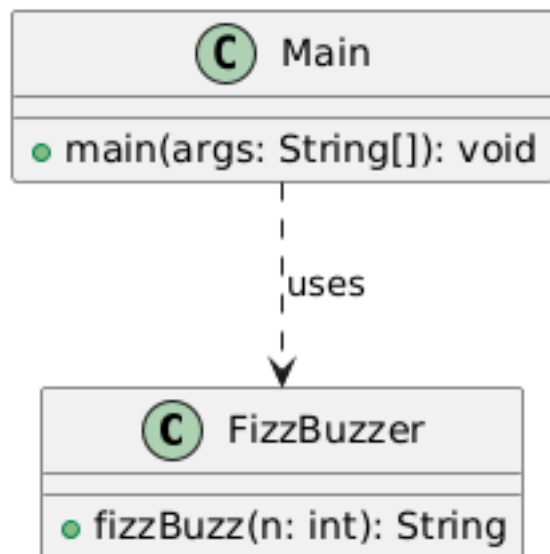


4. Class diagram

```
@startuml
class FizzBuzz {
    +fizzBuzz(n: int): String
}

class Main {
    +main(args: String[]): void
}

Main ..> FizzBuzz : uses
@enduml
```



Keep tests small and focused: one behaviour per test, with a clear name that describes the expected outcome.