

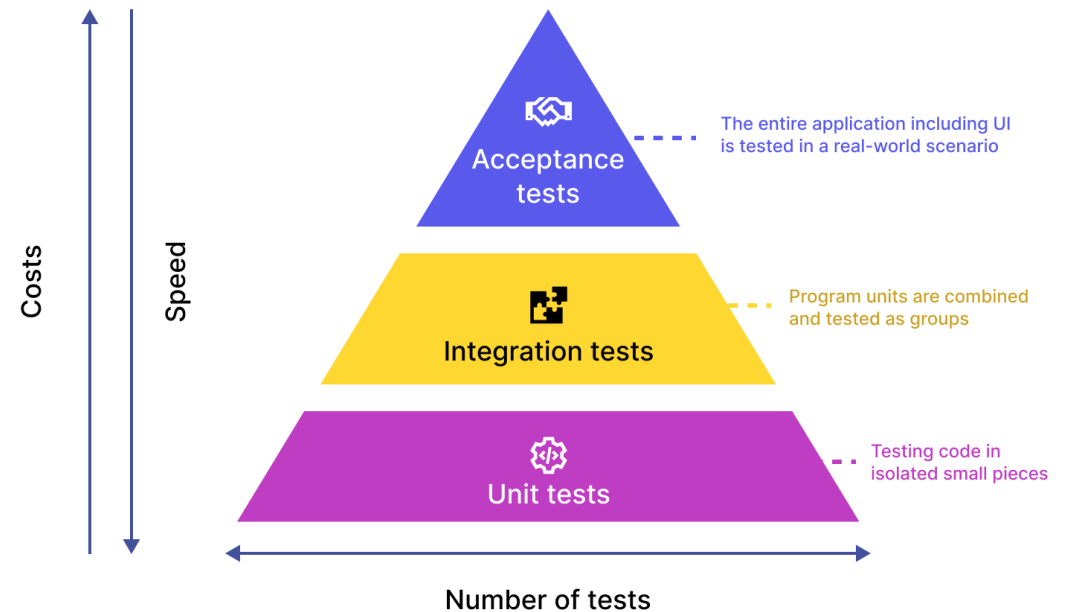
LaunchLab

Testing & Quality Management

05.12.24, Transferagentur

What types of tests do we use?

- Unit → individual
- Integration → components
- Snapshot → visual
- UI → Simulator



[1]

Unit-Test

```
// When
let decoder = JSONDecoder()
let decodedModule = try decoder.decode(Module.self, from: jsonData)

// Then
XCTAssertEqual(decodedModule.moduleName, "Test Module")
XCTAssertEqual(decodedModule.moduleDescription, "This is a test module.")
XCTAssertTrue(decodedModule.isCompleted)
XCTAssertEqual(decodedModule.currentPageIndex, 2)
XCTAssertEqual(decodedModule.pathIndex, 1)
XCTAssertEqual(decodedModule.collectableImageString, "image1.png")
XCTAssertEqual(decodedModule.planetImageString, "planet1.png")
```

Unit-Test

```
func testModulePersistence() throws {
    // Given
    let module = Module(context: managedObjectContext)
    module.moduleName = "Persistent Module"
    module.moduleDescription = "This is persisted."
    module.isCompleted = false
    module.currentPageIndex = 0
    module.pathIndex = 1
    module.collectableImageString = "persistImage.png"
    module.planetImageString = "persistPlanet.png"

    try managedObjectContext.save()

    // When
    let fetchRequest: NSFetchedRequest<Module> = Module.fetchRequest()
    let fetchedModules = try managedObjectContext.fetch(fetchRequest)
    let fetchedModule = fetchedModules.first { $0.moduleName == "Persistent Module" }!

    // Then
    XCTAssertEqual(fetchedModule.moduleName, "Persistent Module")
    XCTAssertEqual(fetchedModule.moduleDescription, "This is persisted.")
    XCTAssertEqual(fetchedModule.collectableImageString, "persistImage.png")
    XCTAssertEqual(fetchedModule.planetImageString, "persistPlanet.png")
}
```

Snapshot-Test

```
final class HomeScreenSnapshotTest: XCTestCase {  
    func testHomeScreenSnapshot() {  
        assertSnapshot(  
            of: HomeScreen(),  
            as: .image(layout: .device(config: .iPhone13)),  
            named: "HomeScreen"  
        )  
    }  
}
```

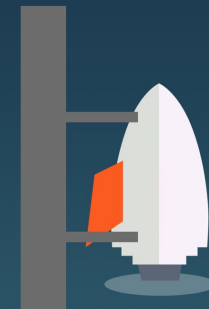
❖ failed - Snapshot "HomeScreen" does not match reference.

```
@-  
"file:///Users/henrik/xcodeMlab/transferagentur/App/LaunchLab/LaunchLabTests/  
__Snapshots__/HomeScreenSnapshotTest/testHomeScreenSnapshot.HomeScreen.png"  
@+  
"file:///Users/henrik/Library/Developer/XCTestDevices/E2A0DEDE-F447-40D0-  
A51A-0939DA5BD3E6/data/Containers/Data/Application/B2DA54D6-  
A43F-4EFC-9606-8DF365F5CFC5/tmp/HomeScreenSnapshotTest/  
testHomeScreenSnapshot.HomeScreen.png"
```

To configure output for a custom diff tool, use 'withSnapshotTesting'. For example:

```
withSnapshotTesting(diffTool: .ksdiff) {  
    // ...  
}
```

0/0 completed
Modules



Sources

- [1] Katalon: https://cms-cdn.katalon.com/number_of_tests_in_unit_testing_integration_testing_and_acceptance_testing_88a3245529.png