

Modular Test Design

Manual and Automated Tests working Side by Side

Why did I start thinking about this solution?

We noticed that an approach for increasing reusability of test cases could address several challenges...

- I need to avoid duplicationg test cases or test steps
- I need to achieve larger end-to-end testing scenarios.
- The most valuable test cases are those which are broadly applicable and reusable across different cycles and releases.

How modular test cases can address all this...

Modular test design enables effective and efficient manual and automated test design and execution...

- Modular test design helps testers focus on the bigger picture by mapping out the interactions between different requirements.
- Having an in-depth understanding of your application makes it easier to design modules that are specific but also generic enough to be reused in lots of different scenarios.

How do they work?

Test Modularisation and Test
Parameterisation combined...

- With the **modularisation** technique, testers break down test cases into modules. These modules are isolated to create independent tests that can then be **recombined** or **reused** to achieve complex end-to-end testing scenarios. Test cases can be referenced in other test cases to create **nested reusable structures**.
- Test **parametrisation** allows you to use modules to run the **same test** over and over again **using different values**. This can be done by defining parameter values in your test sets, which automatically shares these values in all test cases within the test set.

Example...

Example of a test case using **modularization** and also **parametrization**, described in BDD style (application: Advantage Demo)

Scenario: Authenticate into AdvantageDEMO Application

GIVEN the user opens AdvantageDEMO Application

WHEN the user enters the **{username}**

AND the user enters the **{password}**

AND the user clicks the Sign In button

THEN the user should be redirected to Home Page

AND the user icon and name should display in the header

Examples:

username	password
John_Doe	123456
Jane_Poe	654321
Richard_Roe	121212
Mary_Moe	999999

Example...

Example of a test case using **modularization** and also **parametrization**, described in BDD style (application: Advantage Demo)

Scenario: View Special Offer color variety

GIVEN **call Authenticate into AdvantageDEMO Application**

AND the user navigates to menu Special Offer

AND the user clicks on See Offer button

AND the Product Specification page opens

WHEN user clicks over the **{color_type}** color

THEN the product's image should reflect the color clicked

AND the product's spec should reflect the color clicked

Examples:

|color_type

|black

|blue

|red