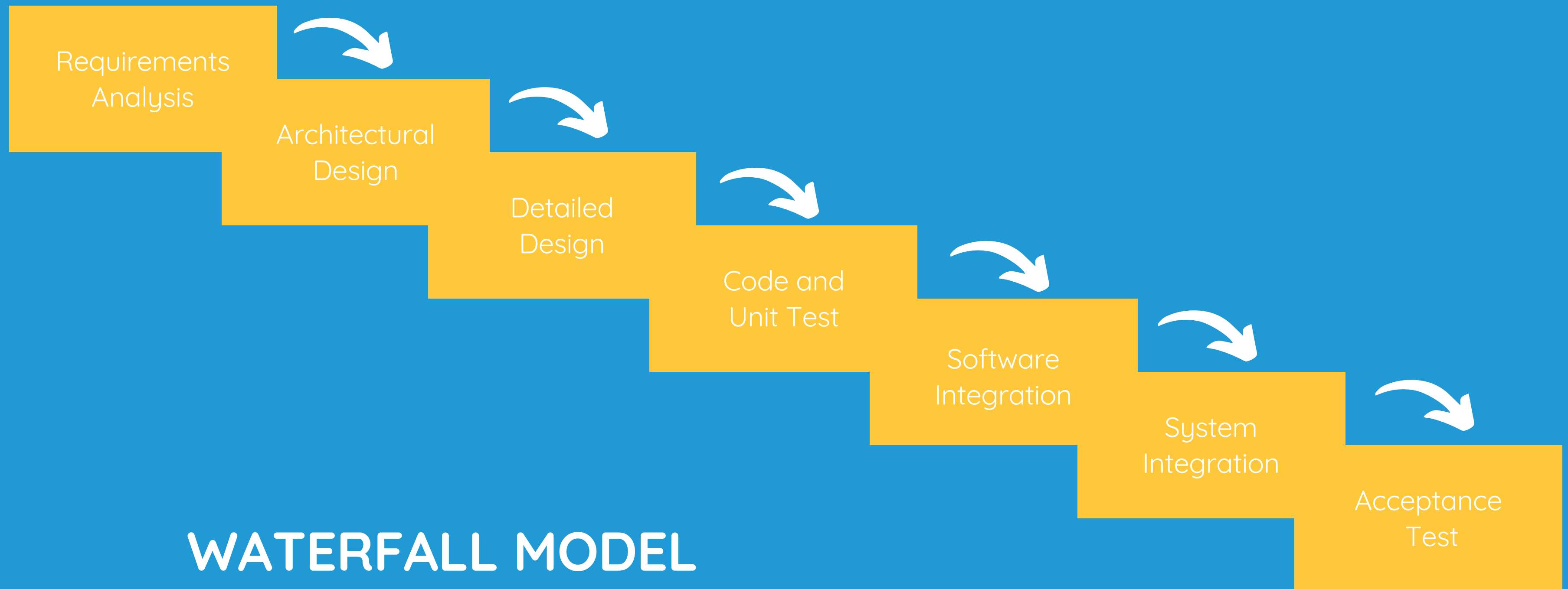
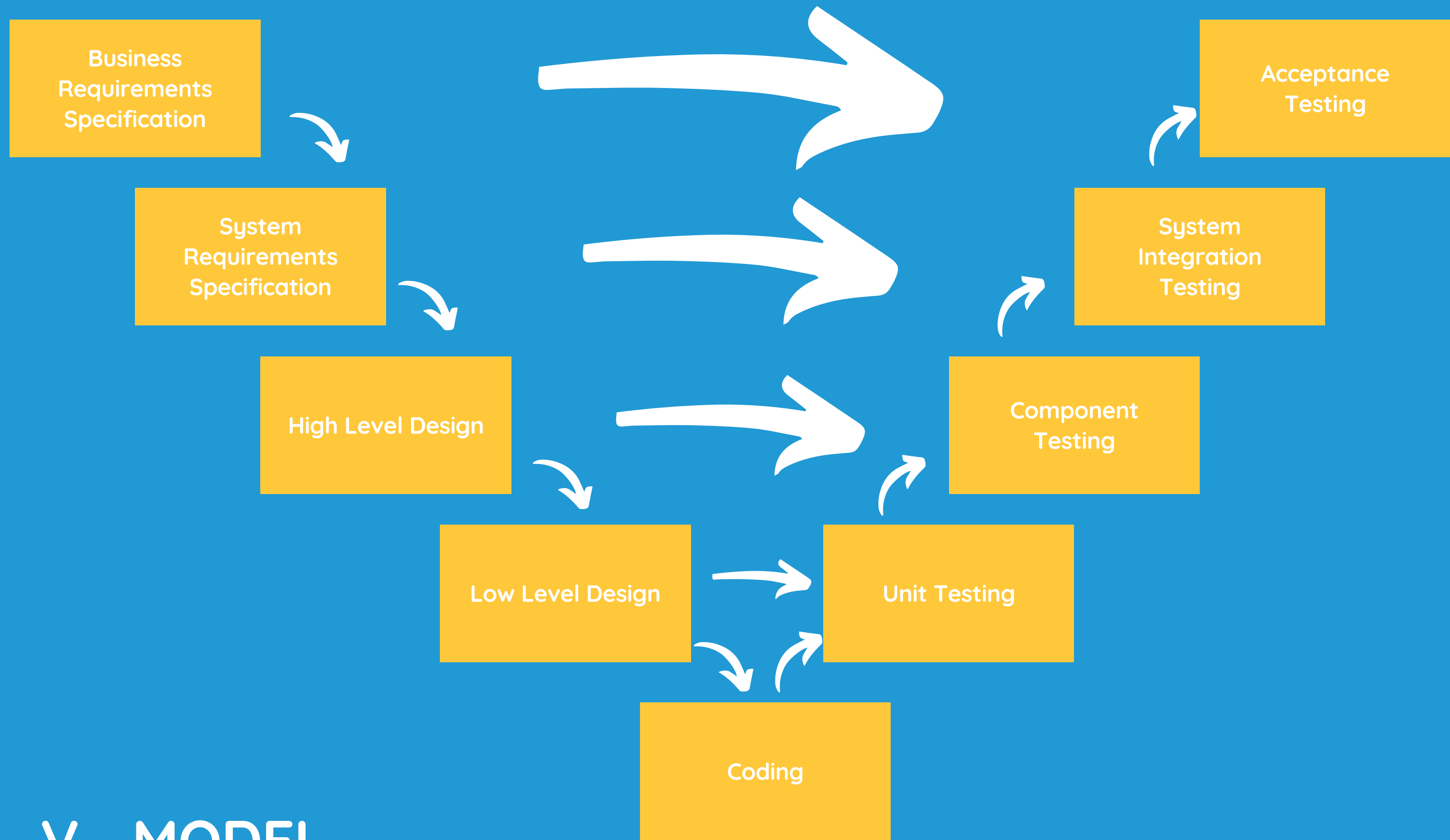


CAROLINA AZEVEDO | NELSON COSTA

ACCEPTANCE TESTING

Software Testing,
Verification and Validation





V - MODEL

BUT WAIT ...

WHAT'S ACCEPTANCE TESTING?



Formal testing with respect to user needs, requirements, and business processes conducted to determine whether or not a system satisfies the acceptance criteria and to enable the user, customers or other authorized entity to determine whether or not to accept the system.

Definition by **International Software Testing Qualifications Board**

BUT WAIT ...

WHAT'S ACCEPTANCE TESTING?



Testing is done by the customer or the user.

Test cases are already defined:

- Capable of finding defects.
- Binary outcome (pass or fail).
- Easy to execute.
- Fast to execute.

Purpose



Acceptance Testing :

- Performed to determine whether or not the software system has met the requirement specifications.
- Evaluate the system's **compliance** with the business requirements and verify **if it has met the required criteria** for delivery to end users.

Types of Acceptance Testing

Alpha

Development Environment. Usually done by internal staff. Based on feedback - collect from the alpha testers - teams then fix certain issues and improve the usability of the product.

Beta

Customer's environment. Testing is made by a group of customers who use the system in their environment. Beta testers then provide feedback, which in turn leads to improvements of the product.

Contract

Developed software is tested against certain criteria and specifications which are predefined and agreed upon in a contract. The project team defines the relevant criteria and specifications for acceptance at the same time it agrees on the contract itself.

Regulation

Also known as **Compliance** Acceptance Testing. Examines whether the software complies with the regulations. This includes governmental and legal regulations.

Operational

Also known as **Operational Readiness** Testing or **Production Acceptance** Testing. Ensure there are workflows in place to allow the software or system to be used. This should include workflows for backup plans, user training, and various maintenance processes and security checks.

User

Acceptance

Initial testing of the software by the organization's employees.

Mainly based on the business domain knowledge.

FRAMEWORKS AND TOOLS



Cucumber



- **Open Source** software tool.
- **Behavior-driven development (BDD)** style.
- Allows expected software behaviors to be specified in a logical language that customers can understand.
- Uses Features, Scenarios and Steps.
- Gherkin is used to define test cases.
- **Written in the Ruby** and originally used exclusively for Ruby testing.
- Now supports other languages, including **Java** and **JavaScript**.

features/link_click.feature

Feature: **Link Click**

@javascript

Scenario: **User clicks the link**

Given **I am on the homepage**

When **I click the provided link**

Then **I should see the link click confirmation**

Concordion



- Open source tool.
- Tests in Java development environment.
- Directly integrates with JUnit, which allows for easy use with IDE of your choice (Netbeans, Eclipse, IntelliJ IDEA).
- Uses acceptance tests specifications in native language, which allows use of Concordion for requirements management.

Robot Framework

- Open source automation framework
- Written in Python for acceptance testing.
- **Acceptance test driven development (ATDD)**.
- Test cases are written using a keyword-testing methodology written in a **tabular format**.
- Tables can be written in plain text, HTML, tab-separated values (TSV), or reStructuredText (reST) formats files in any text editor or using the Robot Integrated Development Environment (RIDE).
- **RIDE simplifies writing test cases** by providing framework-specific code completion, syntax highlighting, etc.

*** Settings ***

Resource search_flights_keywords.robot

*** Test Cases ***

The user can search for **flights**

Select Departure City **Paris**

Select Destination City **London**

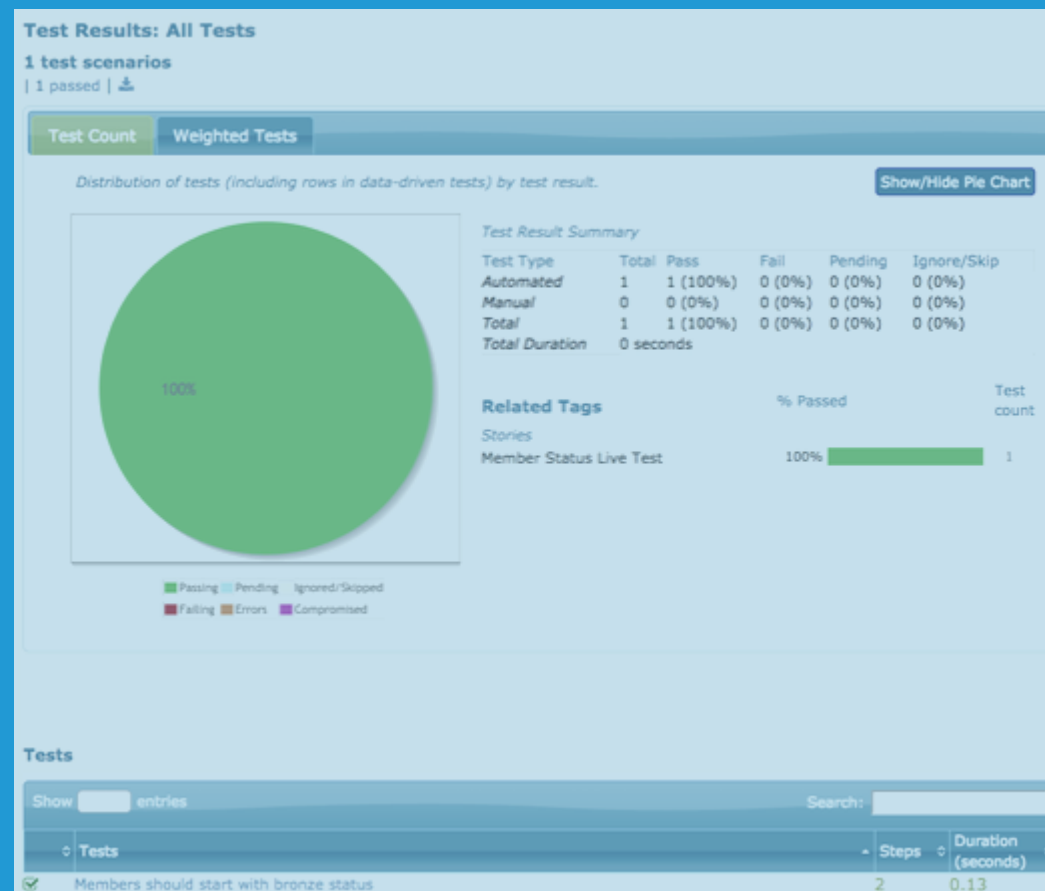
Search For Flights

There are available Flights

Serenity



- Open source reporting library.
- Behavior-driven development (BDD) style.
- Produces rich meaningful test reports (or "living documentation") that not only report on the test results, but also what features have been tested.
- Helps writing better structured, more maintainable automated acceptance criteria.



Member Status Live Test		
Members Should Start With Bronze Status		
Steps	Outcome	Duration
Given client joins membership program	SUCCESS	0.01s
Then the member grade should be Bronze	SUCCESS	0s
	SUCCESS	0.13s



- Web server, a wiki and an automated testing tool.
- Allows users of a developed system to enter specially formatted input accessible to non-programmers.
- The program first supported only Java, but versions for several other languages have been added over time (C++, Python, Ruby, Delphi, C#, etc.).
- Is based around the notation of black-box testing, in which a system under test is considered to be a black box and is tested in terms of the outputs generated in response to predetermined inputs.



And FitNesse is the chosen one !

Testing within the FitNesse system involves **four components per test**:

- The **wiki** page which expresses the test as a decision table.
- A testing **engine**, which interprets the wiki page.
- A test **fixture**, which is invoked by the testing engine and in turn invokes the system under test.
- The **system under test**, which is being tested.

From these components the software development team produces two: the wiki page and the fixture.

LET'S PLAY WITH IT

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ANY QUESTIONS?

TVVS 2019 -
ACCEPTANCE TESTING