



Service Validation & Testing using Xray

Test Early, Test Often, Test Together



Satyendra Narwane

Solution Architecture



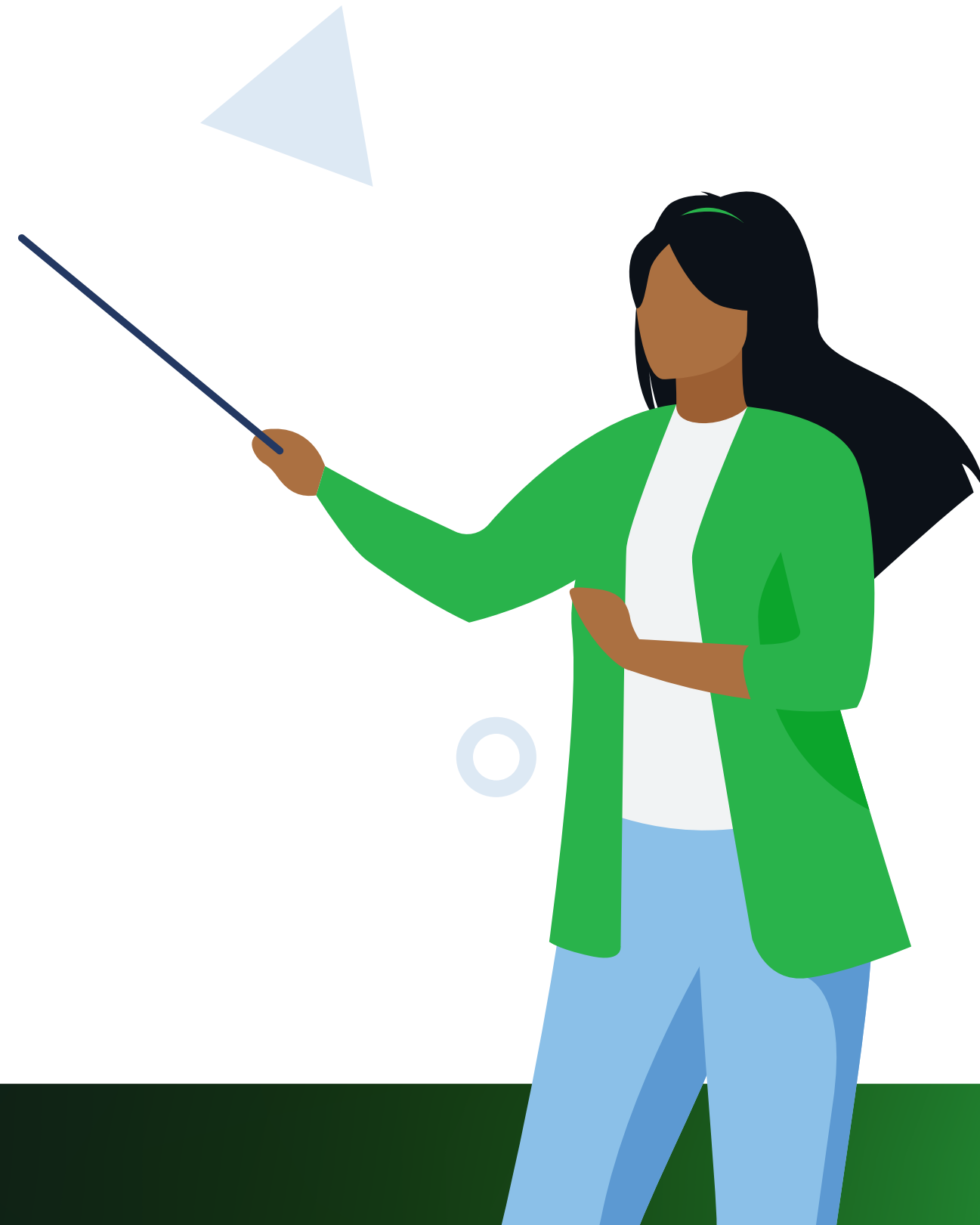
Ivan Filippov

Solution Architect



▲ Agenda

- Introduction
- Quality Assurance
- Test Management
- Defect / Bug Management
- Test Coverage
- End-to-end traceability
- AI & Other features



▲ About Holograph

Extensive expertise with

15+ Years

of technology experience

13+ Years

of Atlassian
specialization

Holograph is a global IT consulting and cloud services company. We specialize in services that includes license management, DevOps, cloud migration, cybersecurity, staff augmentation, Atlassian services, IT infrastructure, professional services, and custom development.



We partner with



▲ About Xray

Xray is the leading Quality Assurance and Test Management app for Jira

+10K

Customers

Trust our products

100M

Test cases

135

Countries

with customers

4

Languages

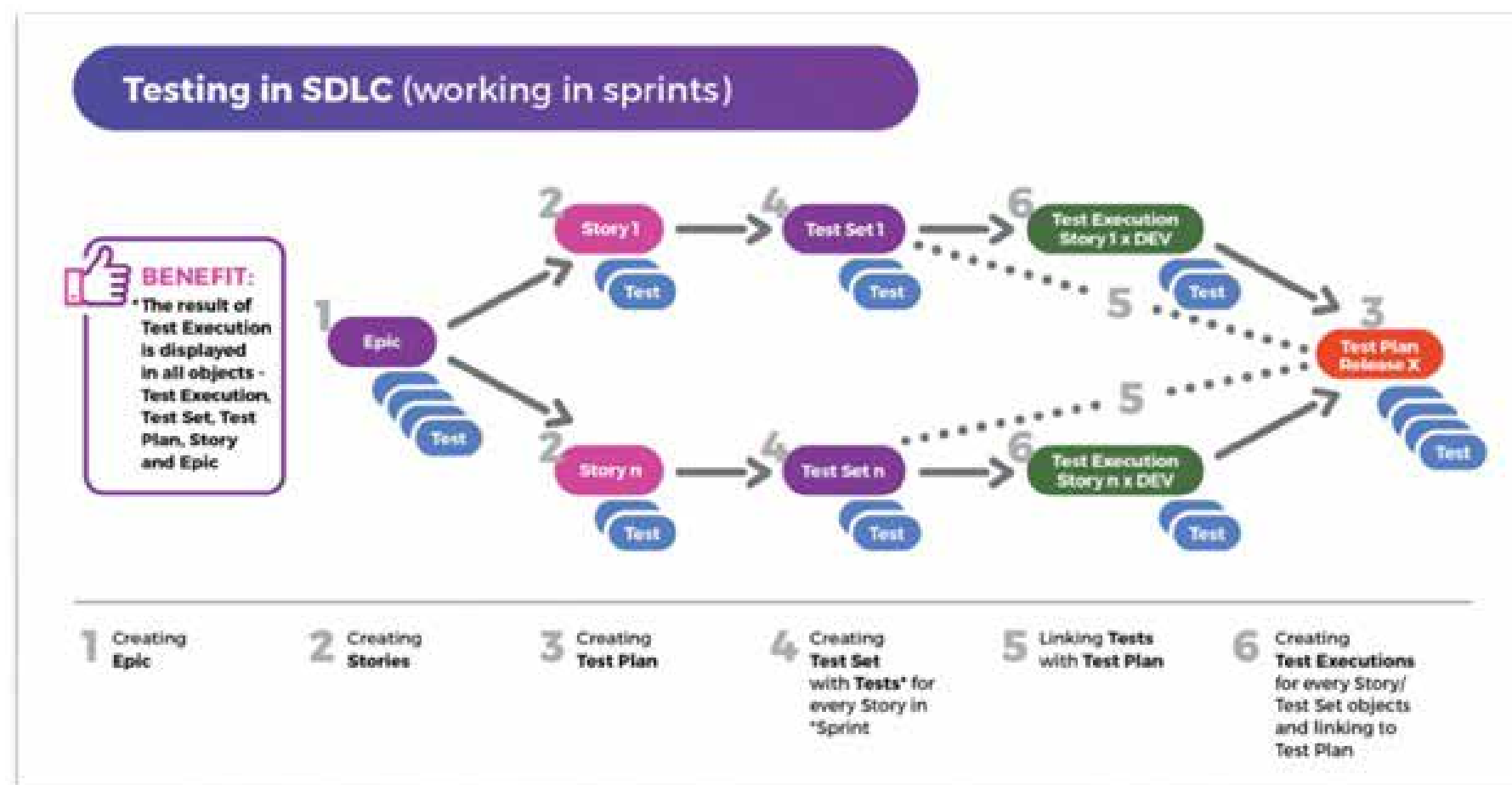
EN, DE, ES & FR

▲ Quality Assurance

Quality Assurance (QA): "Are we doing the process right?" It's about preventing defects by focusing on how things are made.

Key Aspects of Quality Assurance

Focus on Prevention: QA prioritizes preventing errors by establishing clear standards, processes, and guidelines.

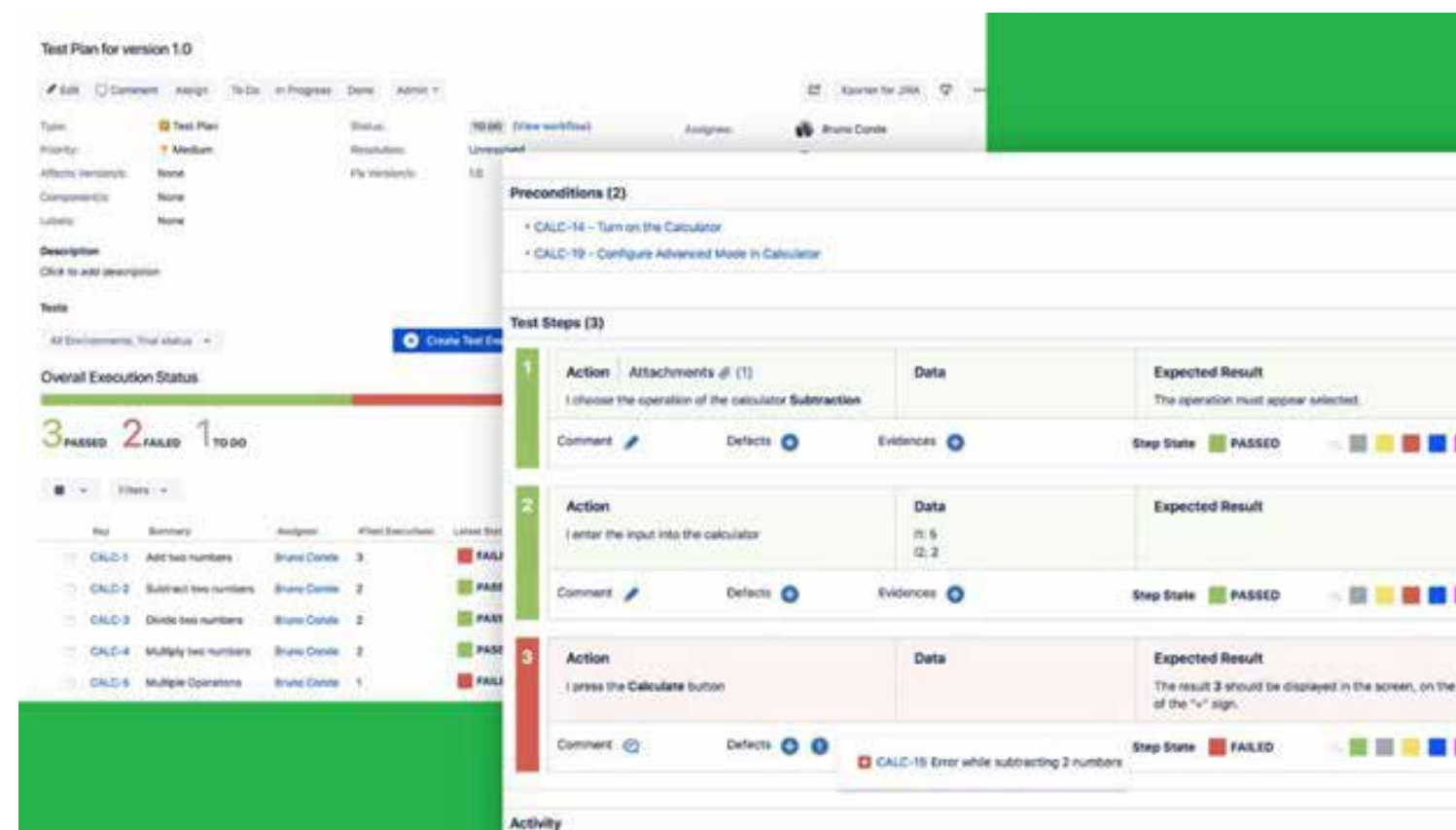


▲ Quality Assurance

Key Aspects of Quality Assurance:

Proactive Approach: Unlike quality control, which reacts to defects after they occur, QA is proactive, embedding quality checks into every stage.

Broad Scope: QA applies to both products and services, including areas like manufacturing, software development, healthcare, and customer service.



Test Plan for version 1.0

Type: Test Plan | Priority: Medium | Status: Unapproved | Assignee: Bruno Conde

Preconditions (2)

- CALC-14 - Turn on the Calculator
- CALC-19 - Configure Advanced Mode in Calculator

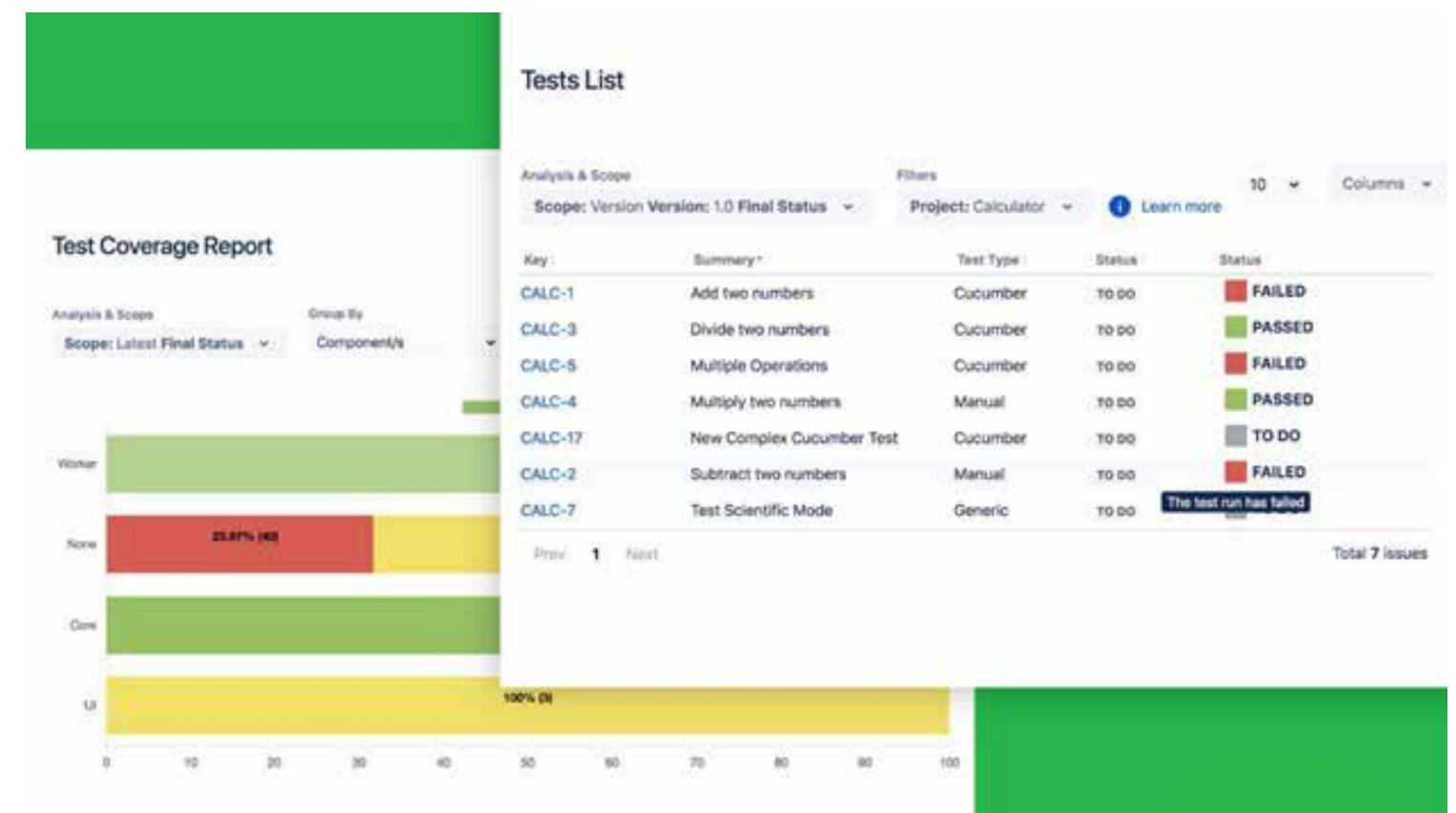
Test Steps (3)

Step	Action	Attachments #	Data	Expected Result	Step State
1	I choose the operation of the calculator Subtraction	0		The operation must appear selected.	PASSED
2	I enter the input into the calculator	0	15 12.2		PASSED
3	I press the Calculate button	0		The result 3 should be displayed in the screen, on the right of the "+" sign.	FAILED

Overall Execution Status: 3 PASSED, 2 FAILED, 1 TO DO

Tests List:

Key	Summary	Assignee	Affect Execution	Latest Status
CALC-5	Add two numbers	Bruno Conde	3	FAILED
CALC-2	Subtract two numbers	Bruno Conde	2	PASSED
CALC-3	Divide two numbers	Bruno Conde	2	PASSED
CALC-4	Multiply two numbers	Bruno Conde	2	PASSED
CALC-6	Multiple Operations	Bruno Conde	1	FAILED



Test Coverage Report

Analysis & Scope: Scope: Latest Final Status | Group By: Component/s

Workar: 100% (0)

None: 25.87% (4)

Done: 100% (0)

UI: 100% (0)

Tests List

Analysis & Scope: Scope: Version Version: 1.0 Final Status | Filters: Project: Calculator | Learn more

Key	Summary	Test Type	Status	Status
CALC-1	Add two numbers	Cucumber	TO DO	FAILED
CALC-3	Divide two numbers	Cucumber	TO DO	PASSED
CALC-5	Multiple Operations	Cucumber	TO DO	FAILED
CALC-4	Multiply two numbers	Manual	TO DO	PASSED
CALC-17	New Complex Cucumber Test	Cucumber	TO DO	TO DO
CALC-2	Subtract two numbers	Manual	TO DO	FAILED
CALC-7	Test Scientific Mode	Generic	TO DO	FAILED

Total 7 issues

▲ Test Management

Key Activities in Test Management

Planning: Defining test objectives, scope, strategies, and required resources.

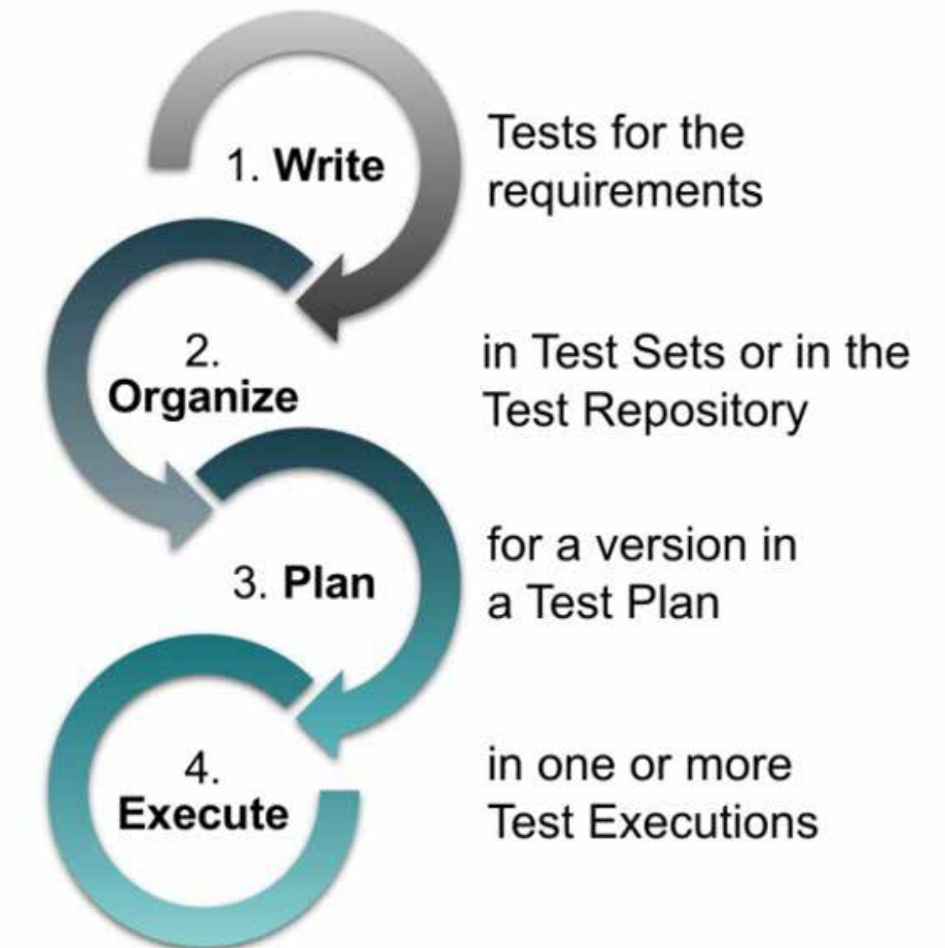
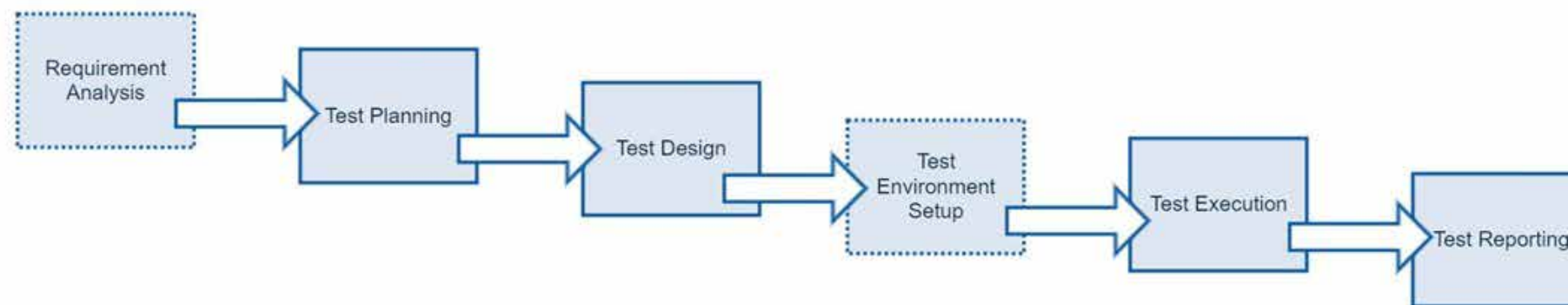
Organizing: Structuring test cases and suites and configuring test environments.

Executing: Running tests (manual or automated) and capturing the results.

Tracking & Monitoring: Overseeing testing progress, managing identified defects, and ensuring alignment with project goals.







Reporting: Generating test status reports, analyzing results, and providing insights for product improvement.

Controlling: Making corrective actions based on monitoring and reporting to keep the testing process on track.



▲ Test Management

1. Name & Details

Name	Description
 Test	This is the Xray Test Issue Type. Used to define test cases of different types that can be executed multiple times using Test Execution issues.
 Precondition	This is the Xray Precondition Issue Type. Used to abstract common actions that must be ensured before the test case execution. A Precondition can be associated with multiple test cases.
 Test Set	This is the Xray Test Set Issue Type. Creates a group of test cases. Used to associate all included Tests with other Xray issue types like Test Execution and Test Plan. A Test Set can also be associated with a requirement issue to provide coverage and test status.
 Test Plan	This is the Xray Test Plan Issue Type. Used to define the scope of test cases for a given test campaign and to aggregate all executions for those tests displaying the latest result for each test case.
 Test Execution	This is the Xray Test Execution Issue Type. Used to execute test cases already defined.
 Sub Test Execution	This is the Xray Sub Test Execution Issue Type. Used to execute test cases already defined. A Sub Test Execution can be created for a parent issue like a requirement in order to execute the test cases associated with it.

2. Test plan screen

2. Test plan screen

Required fields are marked with an asterisk *

Project* Test Management (TM)

Issue Type* Test Plan

General Test Plan Details

Begin Date

The planned start date - Use the dd/MM/yyyy format

End Date

The planned end date - Use the dd/MM/yyyy format

Tests associated with a Test Plan +

Associate tests with this test plan

Test Plan Tests Filter Clear


Associate a smart filter as a source of tests for this Test Plan

3. Test case screen

3. Test case screen

4. Test set

Project*

 Test Management (TM)

▼

Issue Type*

☒ Test Set

▼

?

General

Tests

Tests

▼

+

Start typing to get a list of possible matches or press down to select from a list of recent Tests to associate with this Test Set

3. Test execution

Project*

Test Management (TM)

▼

Issue Type*

Test Execution

▼

?

3. Test execution

General

Test Execution Details

Begin Date

The planned start date - Use the dd/MMM/yy h:mm a date format

End Date

The planned end date - Use the dd/MMM/yy h:mm a date format

Revision

The system revision for the test execution

Test Environments

▼

Begin typing to find and create labels or press down to select a suggested label.

Each environment where the Test is to be executed

Tests

▼

+

Associate tests or test sets with this test execution

Test Plan

▼

+

Associate Test Plans with this Test Execution

Test Management

Xporter for JIRA / XPORTER-460
Xporter for JIRA Global Settings Test - Global Permissions - Include Attachments

Edit Comment Assign More Block Issue Send To Approval

Details

Type: Test Status: OPEN (View Workflow)
Priority: Major Resolution: Unresolved
Affects Version/s: None Fix Version/s: None
Component/s: Tests Security Level: Private
Labels: None

Xporter for JIRA

Template: 0SingleIssueDetails
Output format: PDF
Export

Description

Test Details

Type: Manual

Manual Steps:

Step	Data	Expected Result	Attachments
1	Check the issue Attachments area, and if empty, add the 2 files on this step	The issue will have 2 attachments	pdf sample 2 Mural VS Modern ARTS 2 gif
2	Click the Output format selector	Make sure the PDF output format is selected	
3	Click the Export button	The user will be prompted to	

+ Import Steps -
From csv...
From json...
From clipboard...

People

Assignee: Pedro Rodrigues
Reporter: Pedro Rodrigues
Votes: Vote for this issue
Watchers: Start watching this issue

Dates

Created: 13/Jun/15 10:19 AM
Updated: 10/Jul/15 9:59 AM

Development

Create branch

Agile

DEMO / DEMO-19
all arithmetic operations

Edit Comment Assign More Start Progress Resolve Issue Close Issue Admin

Details

Type: Test Plan Status: OPEN (View Workflow)
Priority: Medium Resolution: Unresolved
Affects Version/s: None Fix Version/s: 3.0
Labels: None
Test Plan Status:

Description

test plan that includes all arithmetic operations related tests

Tests

+ Create Test Execution - + Add

All tests...
With status...

Overall Execution Status

2 PASS 1 FAIL 1 TODO

TOTAL TESTS: 4

FILTERS

Test Set	Assignee	Status	Component	Search
----------	----------	--------	-----------	--------

People

Assignee: Unassigned
Reporter: Sergio
Votes: Stop watching this issue

Dates

Created: 1 week ago
Updated: Just now
Begin Date: 1 week ago
End Date: 3 days ago

HipChat discussions

Do you want to discuss this issue?
Connect Dismiss

Xporter for JIRA / XPORTER-370
Add-on Administration Tests

Edit Comment Assign More Block Issue Send To Approval

Details

Type: Test Set Status: OPEN (View Workflow)
Priority: Major Resolution: Unresolved
Affects Version/s: None Fix Version/s: None
Component/s: None
Labels: None

Xporter for JIRA

Template: 0SingleIssueDetails
Output format: PDF
Export

Description

Tests

Show 10 entries Columns

Key	Summary
1 XPORTER-133	Xporter for JIRA License Management
2 XPORTER-102	Xporter for JIRA Permission Schemes Test
3 XPORTER-95	Xporter for JIRA Global Settings - Global Permissions - Show Xporter Menu
4 XPORTER-92	Xporter for JIRA Global Settings - Global Permissions - Allow anonymous requests
5 XPORTER-91	Xporter for JIRA Global Settings - Global Permissions - Enable Xporter for JIRA for

Showing 1 to 5 of 5 entries First Previous Next Last

Dates

Created: 05/Mar/15 2:24 PM
Updated: 13/Jun/15 3:39 PM

Development

Create branch

Agile

Xporter for JIRA / Test Execution: XPORTER-457 / Test: XPORTER-328
Xporter for JIRA Global Settings Test - Global Permissions - Include Attachments

Return to Test Execution

Pre-Conditions (1)

XPORTER-459 - The Xporter for JIRA Add-on must be installed

Test Steps (32)

Step	Data	Expected Result
1	On JIRA Administration click on "Global Settings" under the XPORTER FOR JIRA label in the sidebar.	The "Xporter for JIRA Global Settings" screen will be loaded
2	Under the "Global Permissions", on the Include Attachments label, click the ON radio button or the text label right next to it.	The ON radio button will be checkmarked
3	Press the Save button at the end of the page.	The screen will reload, with a "Success!" message at the top, and th

Comment Defects (0) Evidences (2) Step State PASS

Comment Defects (2) Evidences (1) Step State FAIL

Test Management

Projects / Book Store / STORE-9

As a visitor, I can search for books in the store

Attach Create subtask Link issue Test Coverage

Description

As a visitor of the book store website

I want to search for products

So that I can quickly find what I am looking for

Linked issues

is tested by

STORE-30	Test a visitor can do a valid search with a single keyword	TO DO
STORE-31	Test a visitor can do a valid search with multiple keywords	TO DO
STORE-32	Test a visitor can filter the search result	TO DO

Test Coverage

Add Tests Execute

Analysis & Scope

Scope: Latest Final Status

OK

Status	Key	Summary	Test Status
TO DO	STORE-30	Test a visitor can do a valid search with a single keyw...	PASSED
TO DO	STORE-31	Test a visitor can do a valid search with multiple keyw...	PASSED
TO DO	STORE-32	Test a visitor can filter the search result	PASSED

Prev 1 Next

Board for Test Plan CALC-1650

All (478)	Board / folder1 / subfolder
Orphans (0)	
Board (478)	
folder1 (448)	
subfolder (8)	
security	
components	
UI	
core	

Xray for JIRA / XRAY-1063

When importing execution results the Defects should be added to the Test Run

Details

Type: Bug

Priority: Major

Affects Version/s: None

Component/s: Core, Integration

Labels: None

Sprint: R2.0.0 S7

Requirement Status: OK

Status: RESOLVED (View Workflow)

Resolution: Fixed

Fix Version/s: R2.0.0

Xporter for JIRA

Template: 0SingleIssueDetails

Output format: PDF

Export

Description

Test Coverage

Create new Test

Version: No Version

Suggestions

Earliest Unreleased

First Assigned

All Versions

R1.0.0.4

R1.0.0

Drop files to attach, or browse.

Attachments

People

Assignee: Pedro Rodrigues

Reporter: André Rodrigues

Votes: Vote for this issue

Watchers: Start watching this issue

Dates

Created: 3 days ago

Updated: 4 hours ago

Resolved: 4 hours ago

Development

1 commit

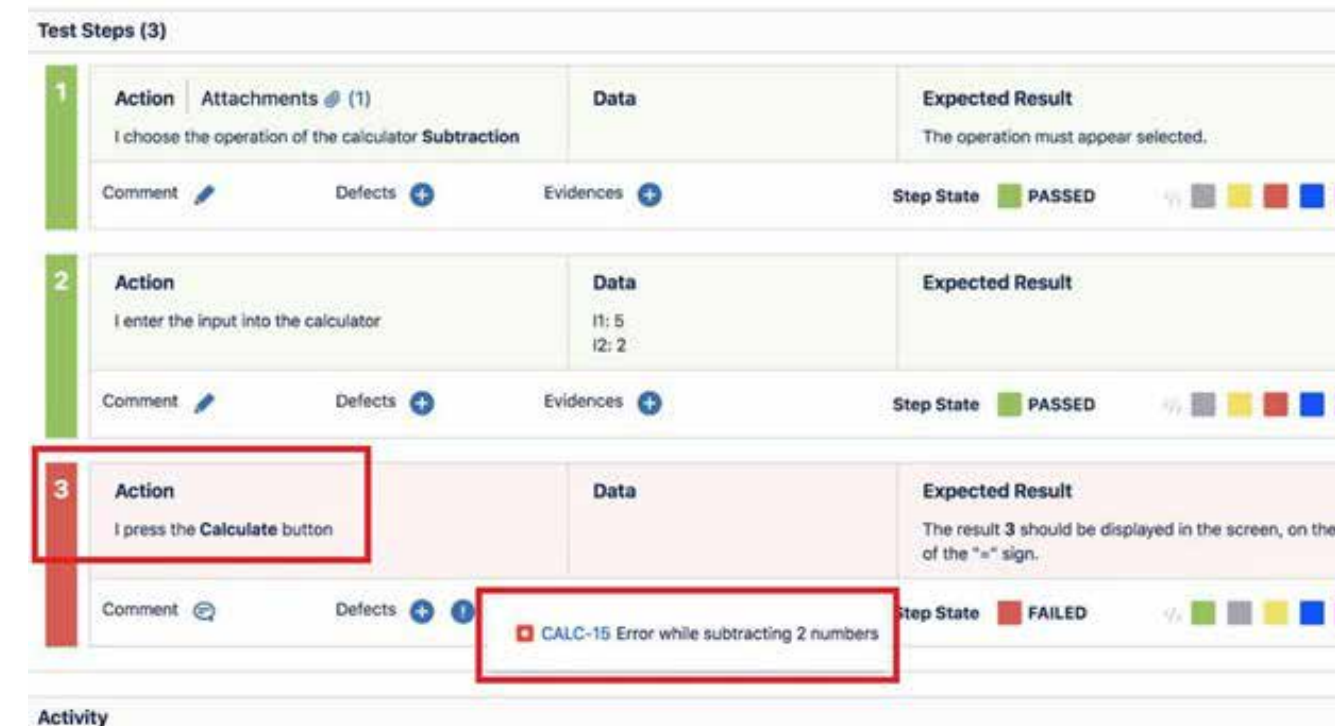
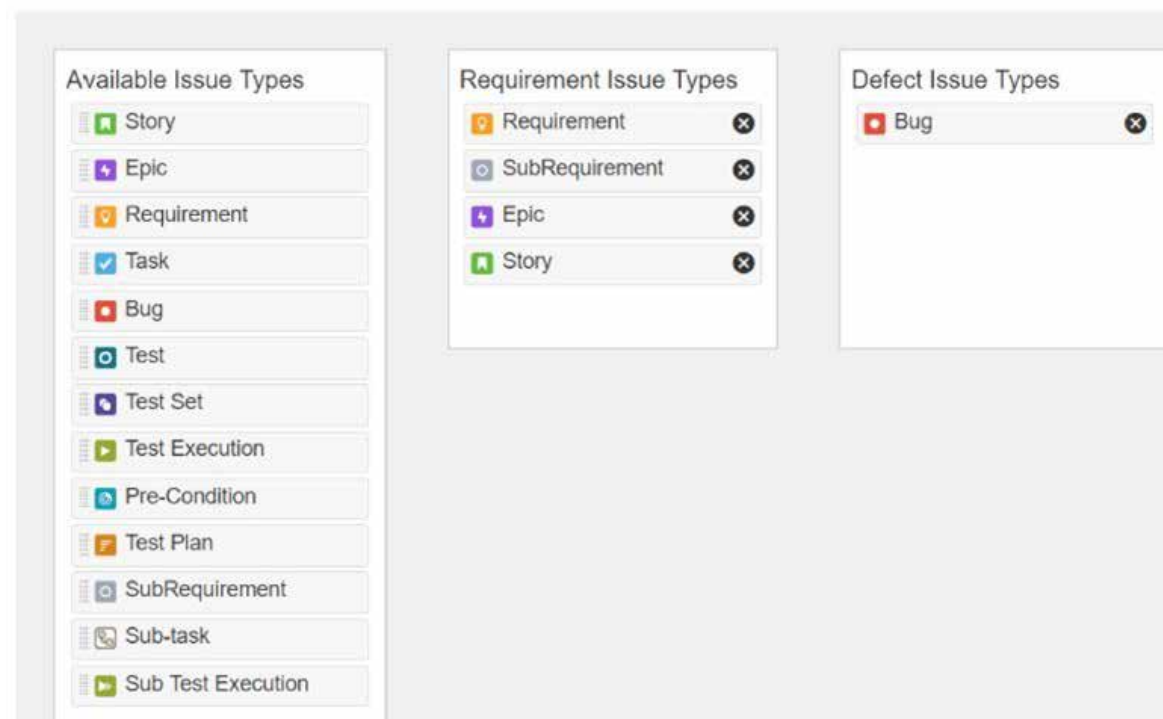
Latest

▲ Defect / Bug management

Xray makes defect tracking simple and actionable. Each defect can be linked to its corresponding requirement and test case, providing full traceability and context. Teams can analyze why defects escaped, identify gaps in test coverage, and prioritize fixes effectively. Real-time dashboards and metrics provide visibility into defect trends, enabling data-driven decisions for continuous improvement.

Best practices include analyzing defect trends regularly, addressing gaps in test coverage, enhancing automation, and integrating defect tracking into the CI/CD pipeline.

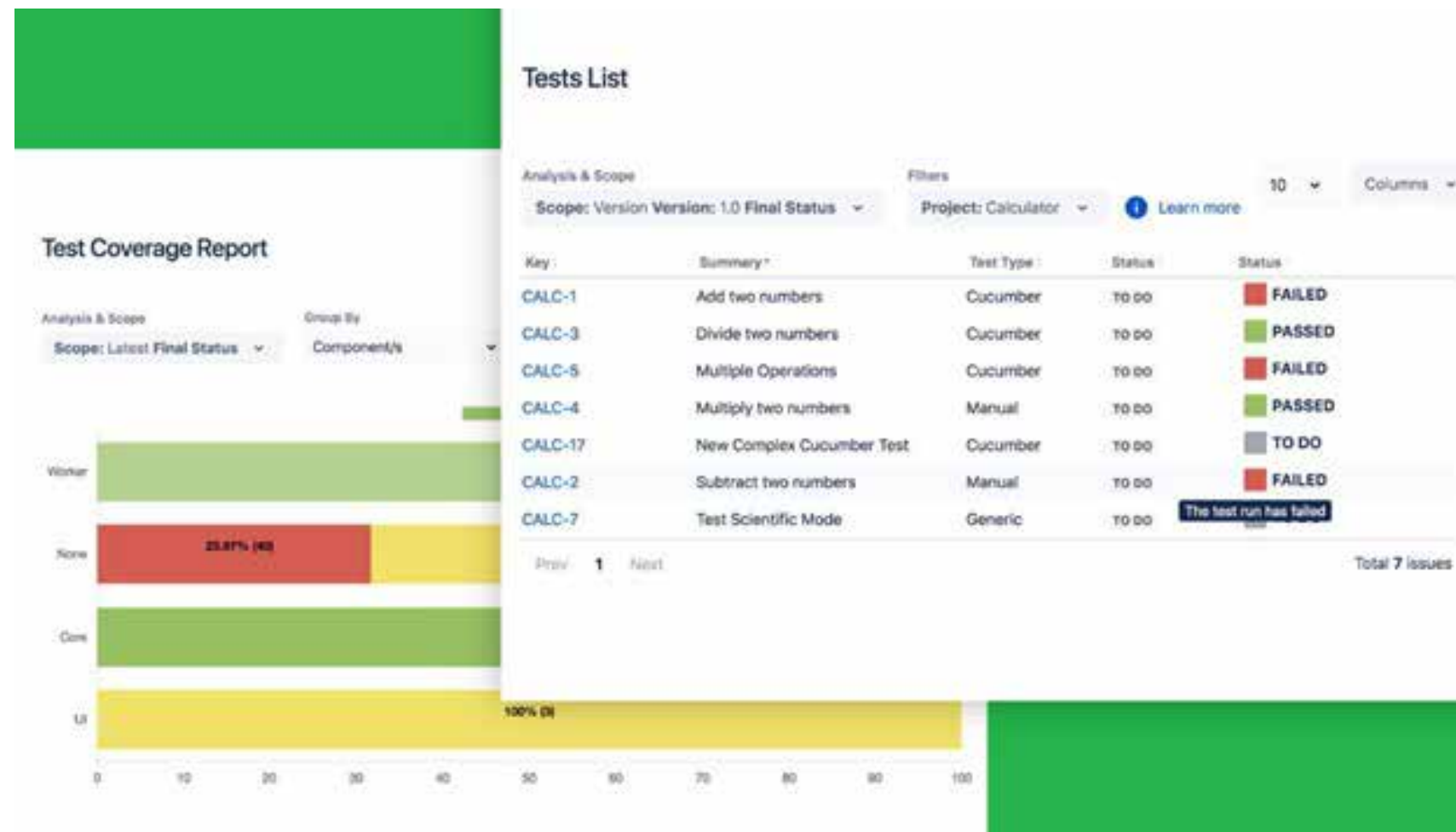
With Xray, defect management becomes a proactive part of the QA lifecycle, helping teams learn from each escape, improve testing efficiency, and deliver higher-quality software consistently.



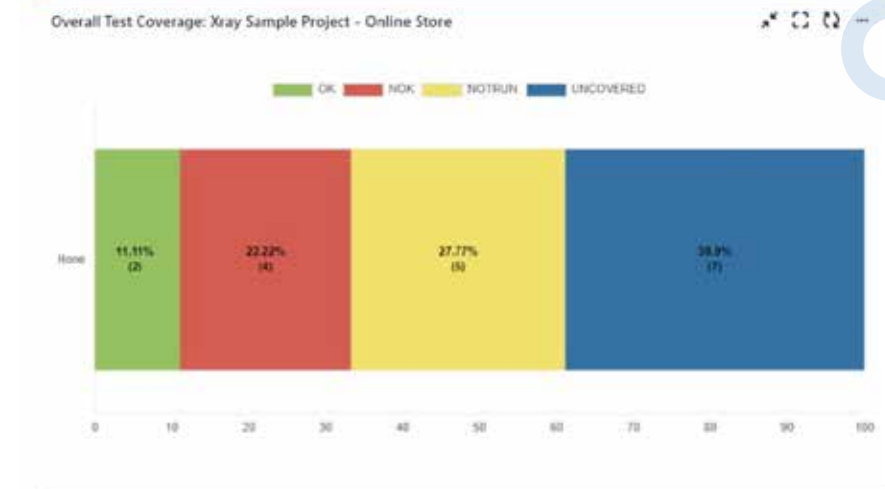
▲ Test Coverage

With Xray, traceability becomes seamless. Teams can link requirements to tests, executions, and associated defects directly within Jira, ensuring nothing is overlooked.

Real-time dashboards and reports provide instant insights into coverage and gaps, helping teams make informed release decisions.



Default dashboard



Projects / Book Store / STORE-9

As a visitor, I can search for books in the store

Attach Create subtask Link issue Test Coverage

Description

As a visitor of the book store website
I want to search for products
So that I can quickly find what I am looking for

Linked issues

is tested by

STORE-30	Test a visitor can do a valid search with a single keyword	TO DO
STORE-31	Test a visitor can do a valid search with multiple keywords	TO DO
STORE-32	Test a visitor can filter the search result	TO DO

Test Coverage

Add Tests Execute

Analysis & Scope

Scope: Latest Final Status

Status	Key	Summary	Test Status
TO DO	STORE-30	Test a visitor can do a valid search with a single keyw...	PASSED
TO DO	STORE-31	Test a visitor can do a valid search with multiple keyw...	PASSED
TO DO	STORE-32	Test a visitor can filter the search result	PASSED

Prev 1 Next

▲ End-to-End / Requirements Traceability Matrix

Calculator Dashboard



Dashboard with gadgets provided by Jira & Xray, making use of Jira custom fields.

Dashboard



▲ End-to-End / Requirements Traceability Matrix

Showing 20 of 22 entries [Load all](#)

Total Tests	Tests By Status							Tests By Test Type						Success rate by Test environments			Linked Defects	
	PASS	TODD	EXECUTING	FAIL	ABORTED	BLOCKED	PENDING	Manual	Cucumber	Generic	Other	Progress	Success rate	IOS	Android	-	Open	Closed
3	2	0	0	1	0	0	0	1	1	1	0	99%	66%	66%	100%		1	0
2	2	0	0	0	0	0	0	1	0	1	0	100%	100%			66%	1	0
4	2	1	0	1	0	0	0	2	1	1	0	75%	50%		100%	66%	0	0
3	3	0	0	0	0	0	0	1	1	1	0	100%	100%			42%	1	0
3	0	3	0	0	0	0	0	1	1	1	0	0%	0%				0	0
3	3	0	0	0	0	0	0	1	1	1	0	100%	100%			75%	1	0
3	3	0	0	0	0	0	0	1	1	1	0	100%	100%			75%	1	0

Test Plans Report

With the Test Plans Report it's possible to analyze both the progress of the Test Plan and the success rate, even by Test Environment. You can see the amount of linked defects, currently opened and close.

				Tests By Status								Tests By Test Type							Linked Defects	
Test Environments	Planned start date	Planned end date	Total Tests	PASS	TODD	EXECUTING	FAIL	ABORTED	BLOCKED	PENDING	Manual	Cucumber	Generic	Other	Progress	Success Rate	Elapsed Time	Open	Closed	
	2017-03-29	2017-03-31	1	1	0		0	0		0	0	0	0	1	0	100%	100%	-	0	0
ANDROID	2017-03-20	2017-03-24	1	1	0		0	0		0	1	0	0	0	0	100%	100%	1w 1d 1h 14m	0	0
IOS	2017-03-21	2017-03-23	3	2	0		0	1		0	1	1	1	0	100%	67%	2d 6h 52m	1	0	
	2017-03-22	2017-03-23	1	1	0		0	0		0	1	0	0	0	100%	100%	-	0	0	

Test Executions Report

With the Test Executions Report, you can analyze both the progress of the Test Executions and the success rate (i.e. the % of Tests contributing to the requirement's OK status).

▲ End-to-End / Requirements Traceability Matrix

Traceability Report Switch report ▾

Version ▾ v3.0 ▾ All Environments ▾ Filter ▾ How to read this report Showing 20 of 113 entries Load all ⚙

Requirement	Tests	Test Runs	Defects
<p>■ CALC-1082 <small>OPEN</small></p> <p>v3.0 - NOK</p> <p>Version: v3.0</p> <p>As a user, I can calculate the sum of 2 numbers</p>	<p>■ CALC-1083 <small>NEW</small></p> <p>Manual Test As a user, I can calculate the sum of 2 numbers</p> <p>v3.0 - FAIL</p>	<p>FAIL</p> <p>■ CALC-1089</p> <p>Version: v3.0</p> <p>Finished On: 2017-03-28T15:33:06+01:00</p> <p>Executed By: admin</p> <p>Tests environments: ios</p>	
		<p>PASS</p> <p>■ CALC-1091</p> <p>Version: v3.0</p> <p>Finished On: 2017-03-30T16:50:28+01:00</p> <p>Executed By: admin</p> <p>Tests environments: ANDROID</p>	
			<p>■ CALC-1090 <small>OPEN</small> calculator crashed</p>
	<p>■ CALC-1084 <small>NEW</small></p> <p>Generic Test As a user, I can calculate the sum of 2 numbers</p> <p>v3.0 - PASS</p>	<p>PASS</p> <p>■ CALC-1089</p> <p>Version: v3.0</p> <p>Finished On: 2017-03-28T14:23:55+01:00</p> <p>Executed By: admin</p> <p>Tests environments: ios</p>	

Traceability Report

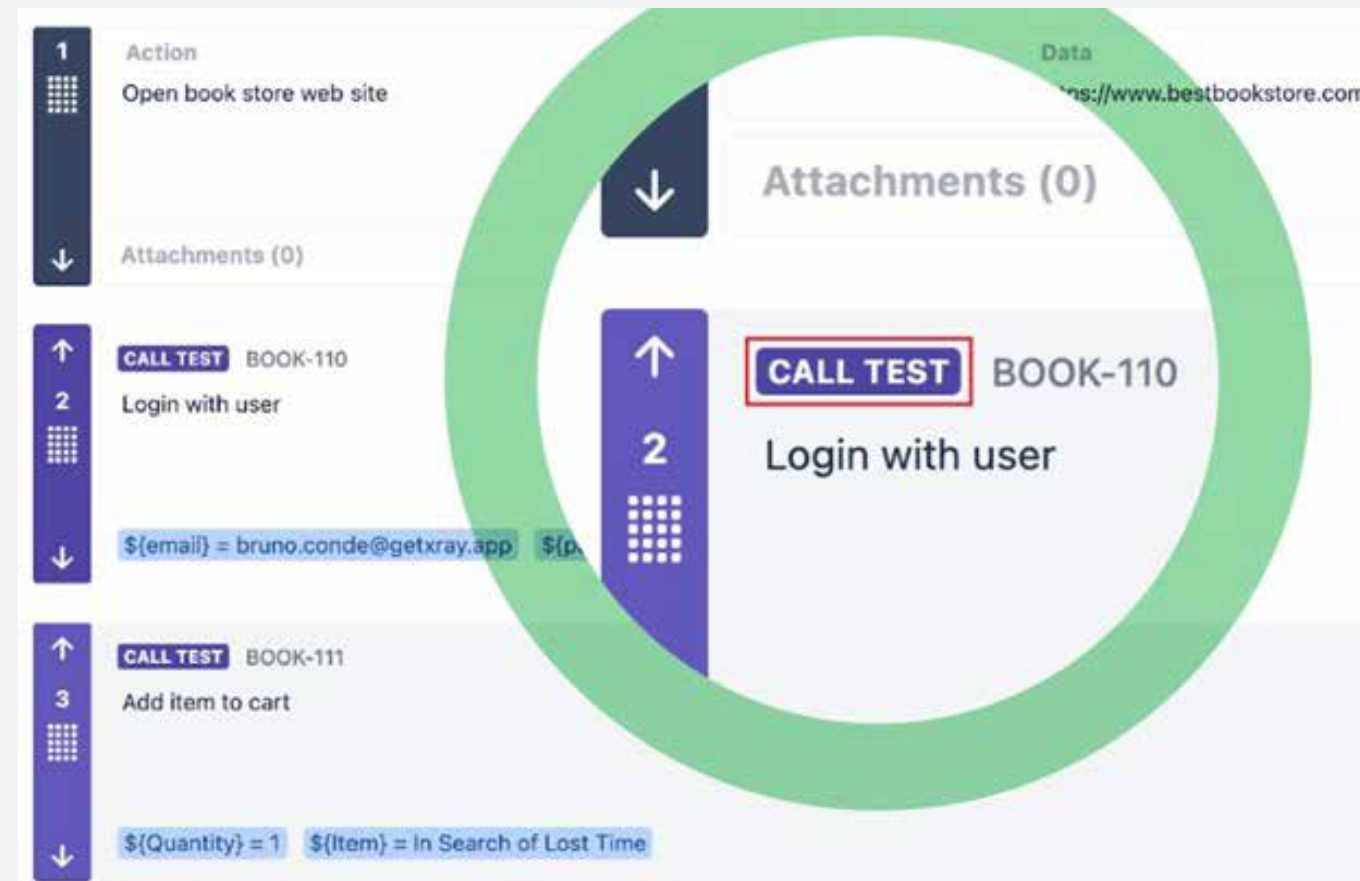
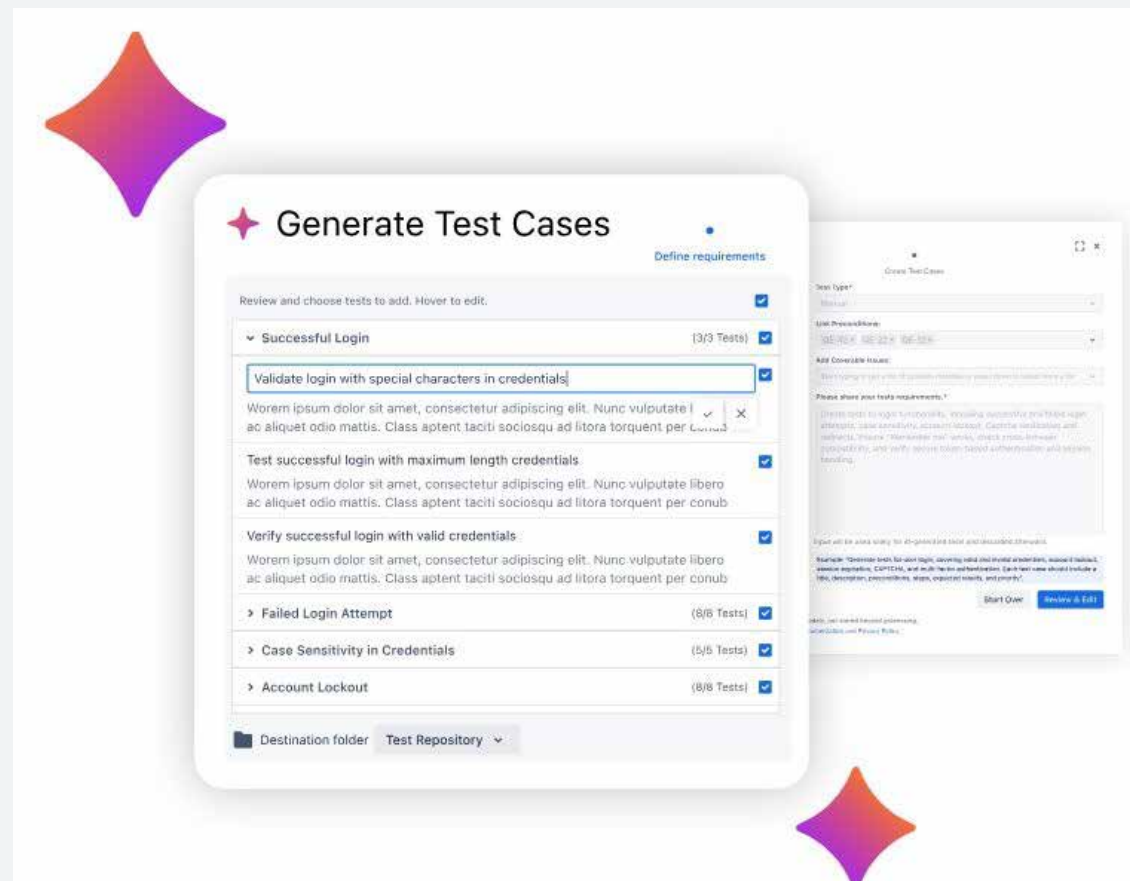
Allows users to analyze the requirements and their traceability to Tests, runs and defects, for any given version or test Environment. The requirement status can be quickly analyzed.

▲ AI & Other features

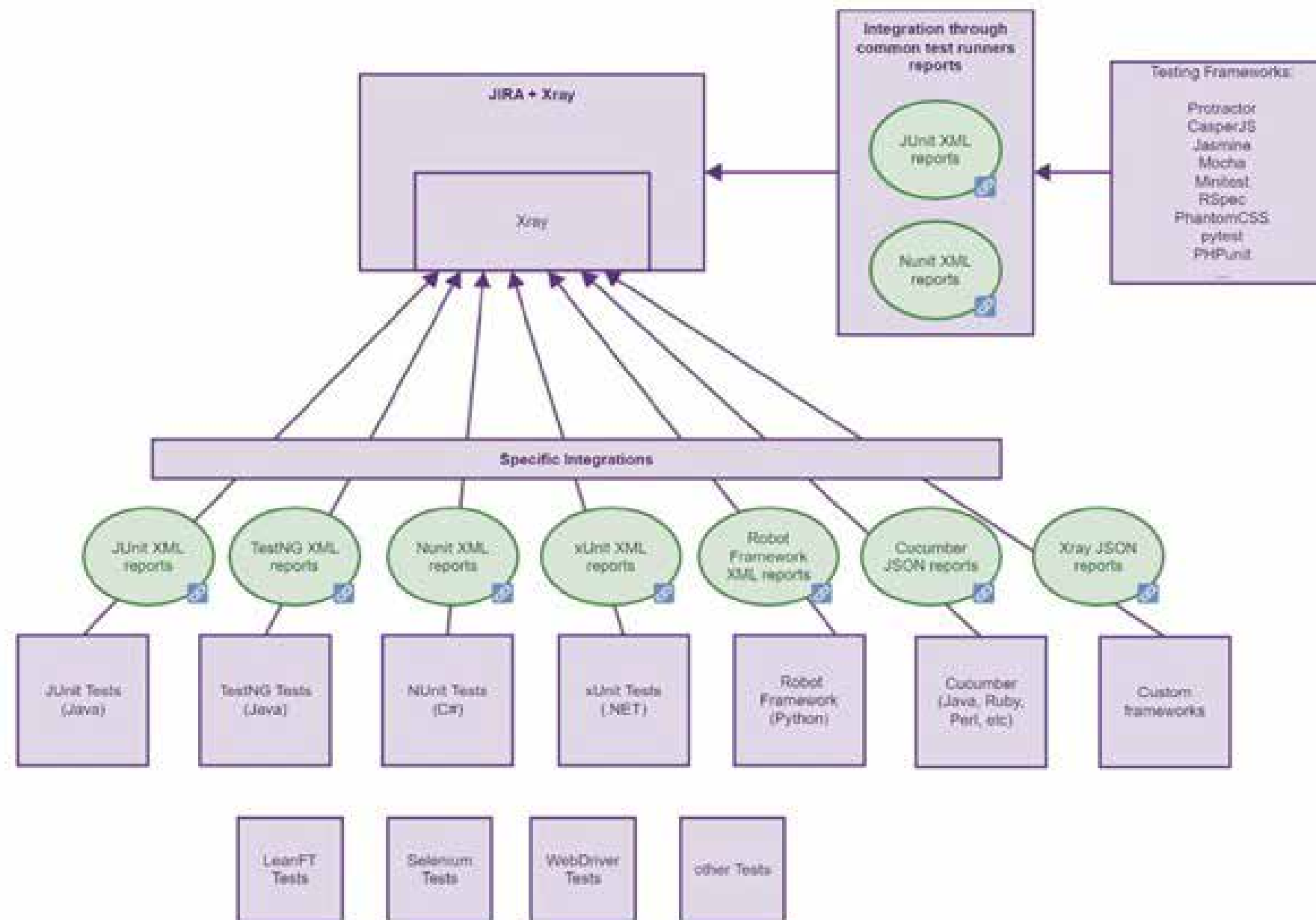
All-in-one Test Management, guided by AI

Easily manage manual and automated tests as Jira issues, customize workflows, integrate automation, and rapidly turn requirements into structured manual or BDD test cases with AI.

Organize tests in folders and test sets.



▲ AI & Other features



▲ About the Client



Hyundai MOBIS, part of the Hyundai Motor Group, is a global leader in automotive components and mobility technologies. Established in 1977, the company is at the forefront of developing advanced safety systems, autonomous driving technologies, and eco-friendly vehicle solutions.

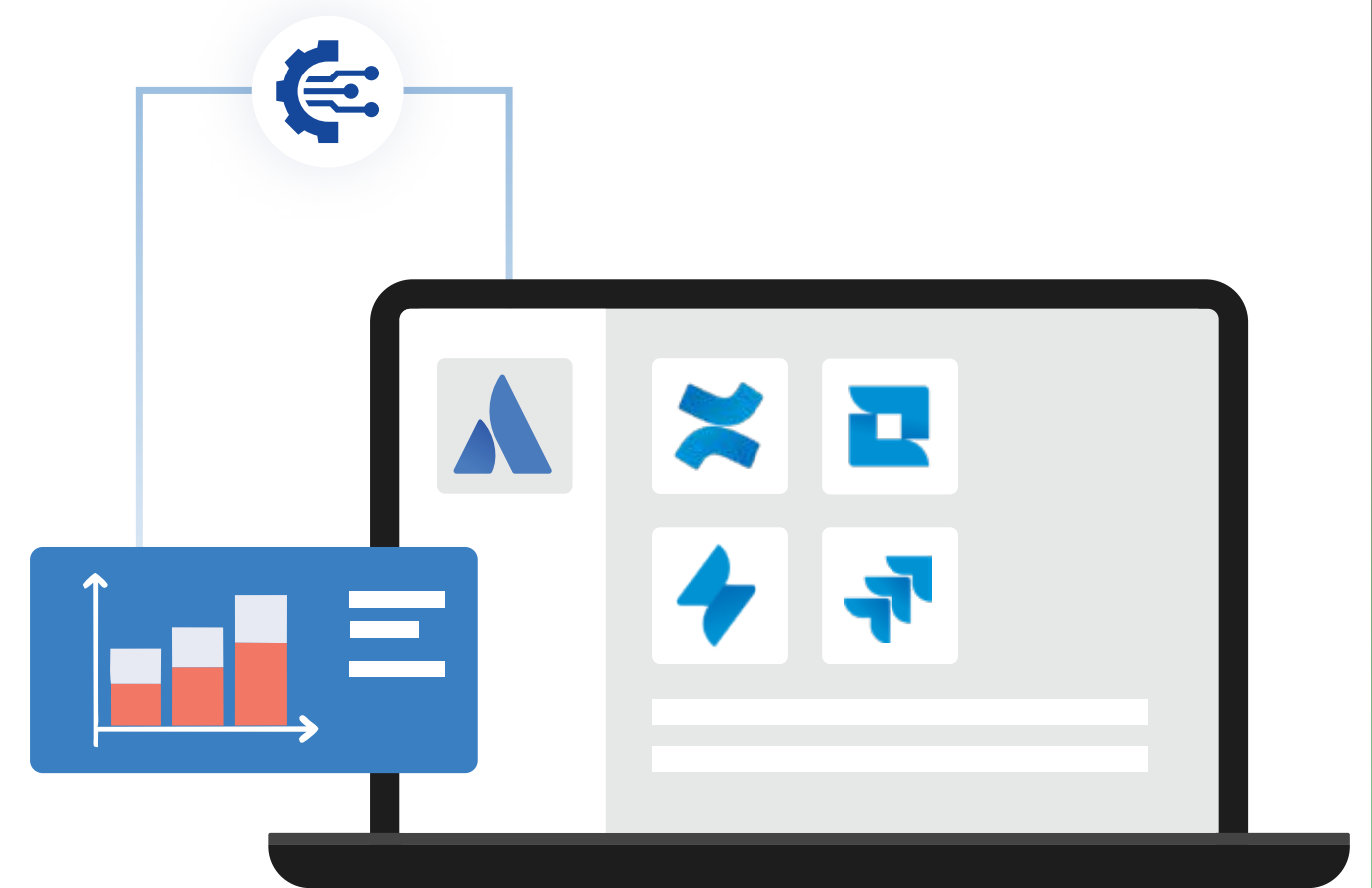
As part of their ongoing digital transformation, the team aimed to enhance the efficiency, scalability, and transparency of their QA and test management processes. Partnering with Holograph enabled them to modernize their approach using the Xray plugin within Jira, enabling greater integration, visibility, and alignment across development and QA teams.



▲ The Solution Holograph Delivered

Holograph implemented the Xray plugin within Jira to transform Hyundai MOBIS's QA ecosystem:

- Centralizing Test Management: Migrated all test cases into Xray-native Jira issues, eliminating spreadsheets and fragmented systems to streamline QA operations.
- Organizing for Reuse: Structured tests with Folders, Test Plans & Sets, enabling efficient test cycle management, logical grouping, and easy reuse across projects.
- Ensuring Full Traceability: Linked stories → tests → defects, providing end-to-end visibility and audit readiness for regulatory compliance.
- Driving Collaboration with BDD: Integrated Cucumber & Gherkin scenarios, connecting product and QA teams through clear, executable requirements.
- Empowering Real-Time Insights: Created interactive dashboards, giving stakeholders immediate visibility into test coverage, execution status, and defect trends.



▲ Measurable Impact & Benefits

Key Improvements:

40%

reduction in manual
test management → QA focuses
on critical tasks

30%

faster test execution
cycles → Accelerated
time-to-market

Traceability improved from

60 – 95%

→ Stronger compliance
& audit readiness

25%

25% reduction in
defect leakage
→ Better product stability

Business Benefits:

95% End-to-End Traceability: Achieved complete visibility across requirements, test executions, and defects — delivering audit-ready traceability, faster defect resolution, and stronger compliance confidence.

Unified QA–Dev Collaboration: Enabled seamless cross-team alignment within a single platform, fostering continuous feedback loops and accelerating release cycles.

Real-Time Quality Intelligence: Deployed dynamic dashboards offering live, actionable insights into coverage, execution health, and release readiness — driving data-backed decisions at every stage.

Agile–Optimized QA Framework: Built a scalable, automation-ready testing ecosystem designed to evolve with Hyundai MOBIS's agile development roadmap and enterprise growth.





Thank you!

To know more details:

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