

## Reporting

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ITEM	LINK	STATUS
Design	<a href="#">TM - Post GA Designs</a>	DONE
W/T	<a href="#">Video Conferencing, Web Conferencing, Webinars, Screen Sharing</a> Passcode: r4sdW=J7	DONE
Instrumentation		DONE
Effort Estimate	<a href="#">Sign in to access Google Drive Spreadsheet</a>	DONE

## Problem Statement [🔗](#)

The lack of reporting in a test management tool hinders progress evaluation, issue identification, and resource allocation, resulting in inefficient testing, delays in bug fixing, and project timeline setbacks.

Reporting is vital for real-time visibility, data-driven decisions, team collaboration, and on-time software delivery.

QA leads and managers require scheduled reports for recurring insights and informed decision-making based on the data.

## Requirements [🔗](#)

Please refer to the attached spreadsheet to get an idea of how the reports will be presented:

[Sign in to access Google Drive Spreadsheet](#)

We will be having the following reports:

1. Test Run Summary
2. Test Run Detailed Report
3. Defects Summary
4. Defects Details Report

The reports need to be designed in a way that they can be easily viewed and accessed on mobile devices with varying screen resolutions.

- Users will be able to create reports from the **All Projects** page as well as within individual projects
- If users want to create a report for multiple projects, they need to use the reporting section on the **All Projects** page
- Users will be able to either schedule a report or generate it on the fly
- When users generate a report using the manual flow, they should be able to view the report on their browser, download it in CSV/PDF format, and share the report link with others.
- However, only users with Test Management access will be able to view the report if the link is shared.
- As part of the automated flow, users will be sent an email containing an HTML body and a link that leads to a report.
- When the user clicks on the link, they will be taken to the same report page that is available in the manual flow. From there, users can view the report on their browser, download it in CSV/PDF format, and share the report link with others.
- Shareable Public report link **FUTURE SCOPE**

#### Inputs for all report types

Report Name	<p>Users should be able to provide a name for the report</p> <ul style="list-style-type: none"> <li>• Name should be given by default as             <ul style="list-style-type: none"> <li>◦ "Test Run Summary - Date"</li> <li>◦ "Test Run Detailed - Date"</li> <li>◦ "Defects Summary - Date"</li> <li>◦ "Defects Detailed - Date"</li> </ul> </li> <li>• Date Format: 10 Oct 2023</li> <li>• However, users should be able to change the name as per their requirements</li> <li>• Users should have an option to add date &amp; time to the report name (We need to expose the date &amp; time variables)</li> <li>• More variables other than date &amp; time <b>FUTURE SCOPE</b></li> <li>• Timezone should be as per the user's local</li> </ul>
Description	Allow users to provide description of the report
Scheduling	<p>Users should be able to generate the report on demand or as per the schedule</p> <ul style="list-style-type: none"> <li>• Daily at a specific time</li> <li>• Weekly at a specific time</li> <li>• Monthly at a specific time</li> <li>• Custom time as per the users' requirements</li> <li>• Custom frequency <b>FUTURE SCOPE</b></li> </ul>

	<ul style="list-style-type: none"> <li>• Timezone should be as per user's local</li> <li>• Custom timezone <b>FUTURE SCOPE</b></li> </ul> <p>Users should be able to see all the scheduled jobs in the reporting section</p> <p>Users should be able to edit or delete the scheduled jobs</p> <p>Users should be able to schedule multiple reports for the same report type like Test Run Summary for two different frequencies.</p> <p>Users should be able to clone / pause a scheduled job <b>FUTURE SCOPE</b></p> <p>Users should be able to see all the scheduled reports generated in the reporting section <b>FUTURE SCOPE</b></p>
Report Formats	<p>Users should have an option to select the format of the report that will be generated</p> <p>HTML (Default)</p> <p>CSV (Detailed Reports)</p> <p>PDF (Summary Reports)</p> <p>The report will be generated in HTML format, users should be able to download the report in either PDF or CSV format.</p>
Accessing Reports	<p>Users should be able to access the reports in the following ways:</p> <ul style="list-style-type: none"> <li>• Via Email</li> <li>• Generate on-demand and download</li> <li>• Shareable link - only account members will be able to access the report</li> <li>• Access all the reports on the Report section for scheduled jobs <b>FUTURE SCOPE</b> <ul style="list-style-type: none"> <li>◦ Store the last 5 reports for each job</li> </ul> </li> </ul>
Notification	<p>Notify users once the report is generated</p> <ul style="list-style-type: none"> <li>• Send an email to all the recipients with HTML body and report link to open the report on the browser and download CSV</li> <li>• Email with CSV/PDF attached <b>FUTURE SCOPE</b></li> <li>• Notification via other channels such as Slack, Teams, etc. <b>FUTURE SCOPE</b></li> </ul> <p>The email report should be responsive even on mobile resolutions</p>
Email Recipients	<p>Users should be able to add members who will be receiving the report via email</p> <ul style="list-style-type: none"> <li>• Self (Default)</li> </ul>

	<ul style="list-style-type: none"> <li>• Add more members who are part of the account</li> <li>• To all account members <b>FUTURE SCOPE</b></li> </ul> <p>Option to send the report to all the members in the project, team <b>FUTURE SCOPE</b></p>
RBAC <b>FUTURE SCOPE</b>	<p>RBAC for reports</p> <ul style="list-style-type: none"> <li>• Who can create reports</li> <li>• Who can access the reports</li> </ul>

## Test Run Report [🔗](#)

We will have two types of Test Run report

- Test Run Summary
- Test Run Detailed Report

### Inputs specific to the Test Run report

Project Selection	Users should be able to generate reports for individual projects or multiple projects together
Select Test Runs	<p>Users should have an option to select the TRs for which they want to generate the report</p> <ul style="list-style-type: none"> <li>• All the test runs (default)</li> <li>• Select TRs based on filter <b>FUTURE SCOPE</b></li> <li>• Select specific TRs <b>FUTURE SCOPE</b></li> </ul>
Active vs Closed Test Runs	<p>Users should have an option to include:</p> <ul style="list-style-type: none"> <li>• Both active &amp; closed TRs(default)</li> <li>• Only Active Test Runs <b>FUTURE SCOPE</b></li> <li>• Only Closed Test Runs <b>FUTURE SCOPE</b></li> </ul>
Date Range	<p>Users should be able to select the time frame for which the reports need to be generated</p> <ul style="list-style-type: none"> <li>• Test Runs created in the last 24 hours (default)</li> <li>• TR created in last one week</li> <li>• TR created in last one month</li> <li>• Custom range <b>FUTURE SCOPE</b></li> <li>• Test Runs executed/updated/closed in the last 24 hours <b>FUTURE SCOPE</b></li> <li>• TR upated/executed/closed in last one week <b>FUTURE SCOPE</b></li> <li>• TR updated/executed/closed in last one month <b>FUTURE SCOPE</b></li> </ul>
Custom Data Selection <b>FUTURE SCOPE</b>	Allow users to select which details from the TR need to shown in the report

Test Run Summary [🔗](#)
[Sign in](#) to access [Google Drive Spreadsheet](#)

Project Summary	
TR Summary across all the selected projects	
Number of projects selected	Total number of projects selected when creating a report
Project Name & link	Name of all the selected projects with links
Number of TRs	The total number of TRs across all the projects included in the report
Status distribution of TRs across all the projects	Pictorial representation of the TRs based on the status <ul style="list-style-type: none"> <li>Active vs Closed</li> <li>Within active or closed show the distribution of all the status</li> </ul>
Number of TCs within TRs across all the projects	Show the total number of TCs at a cumulative level across all the projects & Test Runs within the project
Status distribution of TCs within TRs across all the projects	Pictorial representation of TCs based on the status <ul style="list-style-type: none"> <li>Passed/failed and other status</li> </ul>
Number of Issues linked to TRs at a cumulative level across all the projects	Total number of Jira issues linked across all the TRs
Distribution of issues linked to TR at a cumulative level across all the projects	Pictorial representation of linked issues based on the status and priority across all TRs <ul style="list-style-type: none"> <li>Passed/failed/etc</li> <li>High/p0/etc</li> <li>Assignee <b>FUTURE SCOPE</b></li> <li>Trend based on created time <b>FUTURE SCOPE</b></li> </ul>
Number of issues linked to Test Results	Total number of Jira issues linked to all the test results in this TR
Distribution of the issues linked to test results in a TR	Pictorial representation of all issues linked to the test results based on the status & priority <ul style="list-style-type: none"> <li>Passed/failed</li> <li>p0/p1</li> <li>Assignee <b>FUTURE SCOPE</b></li> <li>Trend based on created time <b>FUTURE SCOPE</b></li> </ul>
Top 5 Active Users	Pictorial Representation of Users with the most number of Test Results added in the selected time range

Individual TR Summary <b>FUTURE SCOPE</b>	
(This section will repeat for each TR)	
Name of the TR	Name of the TR with link to navigate to the TR
Created At	TR creation date
Created By	User who created the TR
TR Status	Current status of the TR
Total number of TCs	Total number of TCs present in the TR
TC Status & Count distribution	Pictorial representation of TCs based on the status
TR Progress	Pictorial representation of % completion
Number of issues linked to the Test Run	Total number of Jira issues linked to the TR
Distribution of the issues linked to the Test Run	Pictorial representation of linked issues based on the status & priority <ul style="list-style-type: none"> <li>Passed/failed</li> <li>High/p0</li> <li>Assignee</li> <li>Trend based on created time</li> </ul>
Number of issues linked to Test Results	Total number of Jira issues linked to all the test results in this TR
Distribution of the issues linked to test results in a TR	Pictorial representation of all issues linked to the test results based on the status & priority <ul style="list-style-type: none"> <li>Passed/failed (Top 5 status)</li> <li>p0/p1 (Top 5 priorities)</li> </ul>

- Users can view the report and download it in **PDF** format.

#### Test Run Detailed [🔗](#)

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Test Case inside TR details	
Tabular view of TCs belong to the test runs across all projects	<ul style="list-style-type: none"> <li>Project name &amp; link</li> <li>TR name &amp; link</li> <li>TC ID with link</li> <li>TC Name</li> <li>TC status</li> <li>Other fields</li> </ul>

- Users can view the report and download it in **CSV/Excel** format.
- Users can generate reports within a Test Run, project, or across multiple projects.

- [Sign in](#) to access [Google Drive Spreadsheet](#)

## Future Scope

- Filtering options on the report UI

## Defects Report [🔗](#)

We will have two types of Defects report

- Defects Summary
- Defects Detailed Report

### Input specific to the Defects report

Project Selection	Users should be able to generate reports for individual projects or multiple projects together
Test Run & Results	By default Defect reports will be generated for the issues linked to the Test Runs and the Test Results within the Test Run
Filters <b>FUTURE SCOPE</b>	<p>Users should be able to generate defect reports based on the filters applied</p> <ul style="list-style-type: none"> <li>• Test Runs</li> <li>• Test Results</li> <li>• Users</li> <li>• Folders</li> <li>• Other attributes</li> </ul>
Date Range	<p>Users should be able to select the time frame for which the defects reports needs to be generated</p> <ul style="list-style-type: none"> <li>• Defects linked in last 24 hours (default)</li> <li>• Defects linked in last one week</li> <li>• Defects in last one month</li> <li>• Defects created/closed/updated <b>FUTURE SCOPE</b></li> <li>• Test Runs executed in the last 24 hours <b>FUTURE SCOPE</b></li> <li>• TR executed in last one week <b>FUTURE SCOPE</b></li> <li>• TR executed in last one month <b>FUTURE SCOPE</b></li> <li>• Custom range <b>FUTURE SCOPE</b></li> <li>• Test Runs created/updated/closed in the last 24 hours <b>FUTURE SCOPE</b></li> <li>• TR created/updated/closed in last one week <b>FUTURE SCOPE</b></li> <li>• TR created/updated/closed in last one month <b>FUTURE SCOPE</b></li> </ul>
Custom Data Selection <b>FUTURE SCOPE</b>	Allow users to select which details from the Defects need to be shown in the report

Defects Summary [🔗](#)
[Sign in](#) to access [Google Drive Spreadsheet](#)

Project Summary (Defects Summary across all the projects)	
Number of projects selected	Total number of projects selected when creating a report
Project Name & link	Name of all the selected projects with links
Number of issues linked to TRs across all projects	Total number of issues linked to all TRs across all projects
Distribution of the issues linked to TRs across all projects	Pictorial representation of the issues based on <ul style="list-style-type: none"> <li>Status</li> <li>Priority</li> <li>Assignee <b>FUTURE SCOPE</b></li> <li>Created at - Trend <b>FUTURE SCOPE</b></li> </ul>
Number of issues linked to Test Results within TRs across all projects	Total number of issues linked to Test Results across all TRs
Distribution of the issues linked to Test Results within TRs across all projects	Pictorial representation of the issues linked to Test Results across all TRs based on <ul style="list-style-type: none"> <li>Status</li> <li>Priority</li> <li>Assignee <b>FUTURE SCOPE</b></li> <li>Created at - Trend <b>FUTURE SCOPE</b></li> </ul>
Top 5 Users	Pictorial Representation of Users with the most number of issues linked to Test Runs or Test Results in the selected time range

- Users can view the report and download it in **PDF** format.

Defects Detailed [🔗](#)
[Sign in](#) to access [Google Drive Spreadsheet](#)

Detailed View	
Tabular view of all the issues linked to TRs across all projects	Tabular view of each issue with all the fields <ul style="list-style-type: none"> <li>Project name &amp; link</li> <li>TR name &amp; link</li> <li>Issue Details such as               <ul style="list-style-type: none"> <li>Title,</li> <li>Priority,</li> <li>Assignee,</li> <li>Created at</li> </ul> </li> <li>Other available fields such as</li> </ul>



	<ul style="list-style-type: none"> <li>◦ linked at,</li> <li>◦ linked by, etc.</li> <li>• Keep all the fields</li> </ul>
Tabular view of all the issues linked to Test Results within TRs across all projects	Tabular view of each issue with all the fields <ul style="list-style-type: none"> <li>• Project name</li> <li>• TR name &amp; link</li> <li>• TC details               <ul style="list-style-type: none"> <li>◦ TC ID</li> <li>◦ Link to the TC</li> </ul> </li> <li>• Issue Details such as               <ul style="list-style-type: none"> <li>◦ Title,</li> <li>◦ Priority,</li> <li>◦ Assignee,</li> <li>◦ Created at</li> </ul> </li> <li>• Other available fields such as               <ul style="list-style-type: none"> <li>◦ linked at,</li> <li>◦ linked by, etc.</li> </ul> </li> <li>• Keep all the fields</li> </ul>

- Users can view the report and download it in **CSV/Excel** format.
- To start with both issues linked to Test Runs and Test Results will be showing on a single page
- But in the future Issues linked to Test Runs and Test Results will be shown in two separate Tabs

### Report Templates

- Users will be able to generate reports using a set of predefined templates.
- Within a project, they can simply click on a template and a report will be generated with the default values.
- When using a template from the "all projects" page, the latest two projects will be selected automatically with the default values.

### Global Report Creation vs Individual Project Report Creation

When users create reports using a template from the All Projects page, the two most recently updated projects are automatically selected for the report.

Given that, a user has created the following reports:

Report 1	Report only for Project A	Created from the All projects page reporting section
Report 2	Report for both Project A & B	Created from the all projects page reporting section
Report 3	Report only for Project B	Created from project B reporting section

The Reports 1, 2, and 3 editable & readable access will be as follows:

All Projects Reporting Section	Project A Reporting Section	Project B Reporting Section	Comments
User will be seeing Report 1, 2 and 3	User will be seeing only Report 1 and 2	User will be seeing only Report 2 and 3	<ul style="list-style-type: none"> <li>User will be able to edit Reports 1, 2, &amp; 3 from the All Projects reporting section</li> <li>Inside Project A reporting Section, Report 1 &amp; 2 will be only readable</li> <li>Inside Project B reporting, Report 2 will be only readable and Report 3 will be editable</li> </ul>

### Email Copy [🔗](#)

- Notify the user that the scheduled report has been generated and is available for viewing, downloading, and sharing.

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- Provide a summary of the report in the email body itself. **FUTURE SCOPE**

The email report needs to be designed in a way that it can be easily viewed and accessed on mobile devices with varying screen resolutions.

### Non-functional Requirements [🔗](#)

- The report generation should not take more than 1 second for the maximum number of test cases (5000) - benchmarking needed **WIP**
- When a report is accessed through a link, it should load within 300 milliseconds.

#### How many projects should we allow the max?

- To begin with, let's set a limit of 5. Users will not be able to select more than 5 projects.

#### How many test runs should we allow the max?

- No restriction. Restriction will be based on the number of Test Cases

#### How many test cases should we allow the max?

- We can keep a cap at a total of 5,000 test cases to start with. 5,000 will be considered based on the last updated time of the test run. This will be applicable only for the detailed Test Run report.
- When the report exceeds more than 5,000 test cases, we need to show a message on the report UI that the report is restricted to only 5,000 test cases. (refer to design)
- This value should be easily configurable.
- The documentation should clearly point out the restriction.

- This restriction will not be applicable to the Test Run summary report.

### How long should we store the generated report?

- Currently, there are no restrictions on accessing the report. Users should be able to access the report even after 30 days. However, we may consider adding restrictions in the future.

Percentiles - [Sign in to access Google Drive Spreadsheet](#)

### Error Handling

If there's an issue while generating the report, throw a valid error message:

- No Data Found for the Selected Criteria

Show the empty state screen of the report

- Report Generation Timed Out Due to Large Data Set

Report generation timed out due to large dataset. Please consider a smaller set. If issue persists, contact support.

- Report Generation Failed Due to Server Error

Report generation failed due to a server error. Please try again later. If the issue persists, contact support.

Error while opening the report:

- Invalid or Corrupted Report File

The report file is invalid or corrupted. Please try regenerating the report. If the issue persists, contact support.

- Server Error / Network error

We're experiencing technical difficulties. Please try again later. If the issue persists, contact support.

- File Too Large to Load WIP

The report file is too large to load in the browser. Please download the report and view it offline for optimal performance.

### Design [🔗](#)

 [TM - Post GA Designs](#)

### Instrumentation [🔗](#)

Event	Properties	Comments
"TM_ReportMenuClicked" <span>NEW</span>	user_id, group_id, screen_resolution  menu: all_project / within_project	Event should be triggered when clicking on <b>Report</b> Left navigation  all_project - if report clicked from all projects page.  within_project - if report clicked from inside the project

"TM_CreateReportCtaClicked"	user_id, group_id, screen_resolution  menu: all_project / within_project	Event should be created when create report button is clicked successfully
"TM_ReportTemplateClicked"	user_id, group_id, screen_resolution  menu: all_project / within_project  template_type: test_run_summary/test_run_det ailed	The event should be created when create report button is clicked successfully
"TM_ReportGenerated"	user_id, group_id, screen_resolution  menu: all_project / within_project  report_method: template or custom	Event should be triggered when a report is successfully generated
"TM_ReportDownloadCtaClicked"	user_id, group_id, screen_resolution  report_format: csv/pdf	Event should be triggered when a download cta is successfully clicked
"TM_ReportCopyCtaClicked"	user_id, group_id, screen_resolution	Event should be triggered when a copy cta is successfully clicked
"TM_ReportScheduleCtaClicked"	user_id, group_id, screen_resolution	Event should be triggered when a schedule cta is successfully clicked from the reports page
"TM_ReportEditCtaClicked"	user_id, group_id, screen_resolution	Event should be triggered when a edit cta is successfully clicked from the reports list view or editing a report from the reports page
"TM_ReportDeleteCtaClicked"	user_id, group_id, screen_resolution	Event should be triggered when a delete cta is successfully clicked
"TM_ReportViewed"	user_id, group_id, screen_resolution	This event should triggered a user views reports using the link shared via email or copy link option.

When creating a report, capture all data (projects, type of report, test runs selected, time range, schedule, recipients) in BQ for both scheduled and non-scheduled reports:

For each report, the following data should be captured in BQ:

- Report Name

- Report created at
- Report created by
- Default or Custom report
- Report Configuration
  - Selected projects
  - Scheduled or Not
    - Scheduled frequency
    - Recipients
  - Report Type
  - Test Run selection - date range
- Report update history
  - updated by
  - updated at
  - Deleted by
  - Deleted at
  - Updated configuration

## Success Metric [🔗](#)

### WIP

- Number of reports scheduled in a week
- Number of on-demand reports generated in a week
- Number of overall reports generated in a week
- Number of users/groups scheduled reports in a week
- Number of users/groups created on-demand reports in a week
- Number of users/groups either scheduled or created on-demand report

Let's get the same data for different types of reports.

## Future Scope Items [🔗](#)

Other reporting types

- Projects Report
- Test Cases Report
- Requirements Report
- Users Report
- Activity Report

Operations

- Pause the scheduled report
- Clone

API support

Jira App Reporting

## Story Breakdown [🔗](#)

1. Create Detailed Test Run Report from within the Test Run itself.
2. Create Test Run Detailed Report within a project with scheduling and complete flow
3. Create Test Run Summary report within a project (without Jira issues status and priority breakdown)
4. Create Test Run Detailed Report across projects
5. Create Test Run Summary report across projects (without Jira issues status and priority breakdown)
6. Create Test Run Summary report within a project (with Jira issues status and priority breakdown)
7. Create Test Run Summary report across projects (with Jira issues status and priority breakdown)

## References [🔗](#)

XRay CSV - [📄 Xray - Execution List.xls](#)

Zephyr CSV - [📄 atm-report \(1\).xlsx](#)

Zephyr Detailed PDF - [📄 Zephyr Scale.pdf](#)

TestRail Detailed - [📄 testrail-report-12.pdf](#)

Practitest Detailed - [📄 2Issues+Report\\_2023-09-26.xlsx](#)

Practitest Summary- [📄 Sprint+1+Issues\\_2023-09-22.xlsx](#)

Filters Project: My Kanban Project Columns

Test				Test Run								
Key	Summary	Components	Priority	Test Execution	Test Environments	Test Plan	Test Type	TestRun Status	Executed By	Test Execution Fix Version/s	Revision	Started At
KAN-2	First Test case			View Details	-	-	Manual	FAILED	Sreenivas Karthikeyan	-	-	7/Sep/23 12:31 PM
KAN-15	Test one for set 2			View Details	-	-	Manual	TO DO		-	-	-
KAN-15	Test one for set 2			View Details	-	-	Manual	FAILED	Sreenivas Karthikeyan	-	-	4/Oct/23 06:07 PM
KAN-11	Test two			View Details	-	-	Manual	TO DO		-	-	-
KAN-10	Test one			View Details	-	-	Manual	TO DO		-	-	-

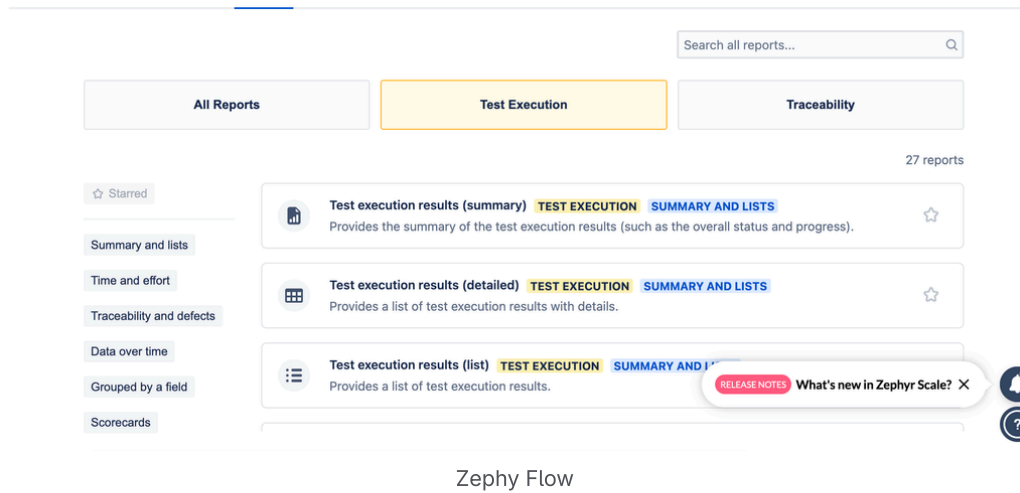
Xray TR

[Share](#) [Export](#)

Columns

Test Run												Linked Defects	
Priority	Test Execution	Test Environments	Test Plan	Test Type	TestRun Status	Executed By	Test Execution Fix Version/s	Revision	Started At	Finished At	Elapsed Time	Open	Closed
	View Details	-	-	Manual	FAILED	Sreenivas Karthikeyan	-	-	7/Sep/23 12:31 PM	7/Sep/23 12:31 PM	0 millisec	1	0
	View Details	-	-	Manual	TO DO		-	-	-	-	-	1	0
	View Details	-	-	Manual	FAILED	Sreenivas Karthikeyan	-	-	4/Oct/23 06:07 PM	4/Oct/23 06:07 PM	0 millisec	0	0
	View Details	-	-	Manual	TO DO		-	-	-	-	-	0	0
	View Details	-	-	Manual	TO DO		-	-	-	-	-	0	0

Xray TR



## Report

Zephyr - Excel Single sheet

Xray - CSV

TestRail - Only HTML & PDF

Practitest - Excel

TestMo - PDF

## Export

TestMo - CSV, PDF

TestRail - Excel, CSV, XML

XRay - CSV