

# Defect Tracking

July 2016, 2018

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# Agenda

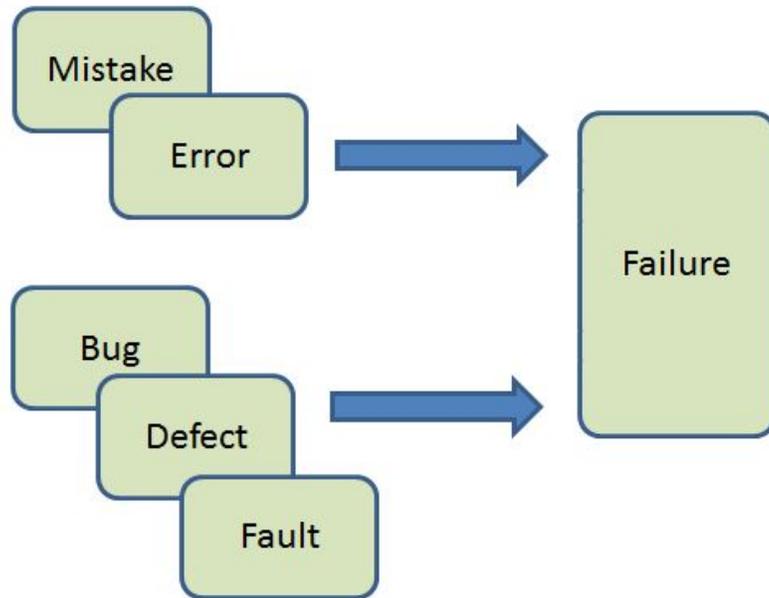
- *Definitions*
- *Why do we need defect reports?*
- *Defect Life Cycle*
- *Defect Report*
- *Defect Reporting Tips*
- *Defect Tracking Tools. Jira*



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# Causes of software defects

Human action that produces incorrect result



Deviation from expected result

A flaw in a component or system that can cause the component or system to fail to perform its required function

# Definitions

**Defect Report** - a document reporting on any flaw in a component or system that can cause the component or system to fail to perform its required function.

Defect is considered as **reported** if:

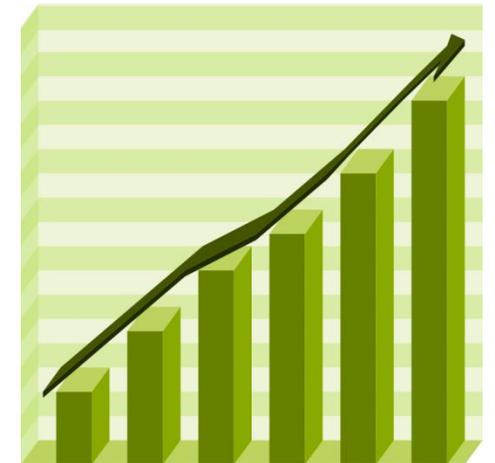
- ✓ it is entered into Defects Database
- ✓ it contains enough information to reproduce and analyze it



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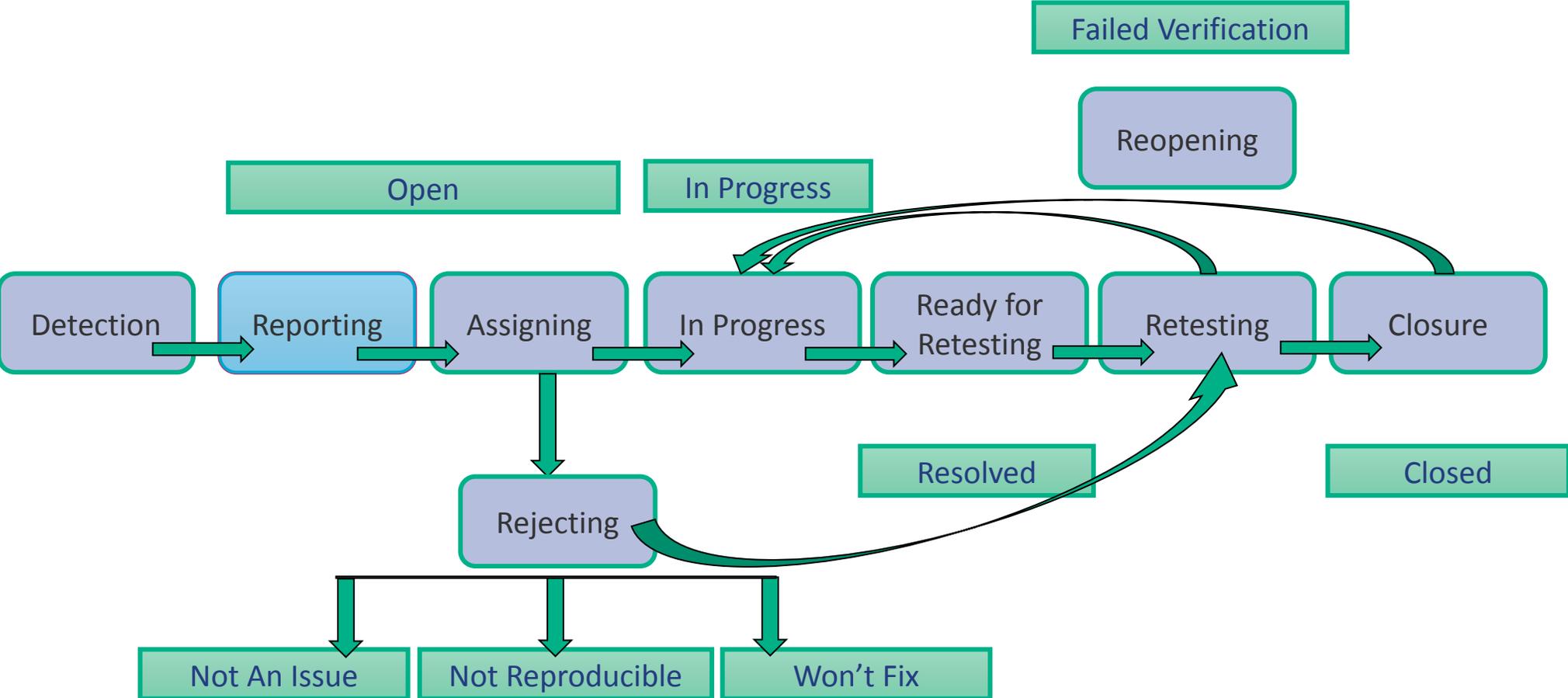
# Why do we need Defect reports?

- ✓ To provide programmers, managers and others with detailed information about the behavior observed and the defect.
- ✓ To support the analysis of trends in aggregate defect data, either for understanding more about a particular set of problems or tests or for understanding and reporting the overall level of system quality.
- ✓ Give information that can lead to development and test process improvements

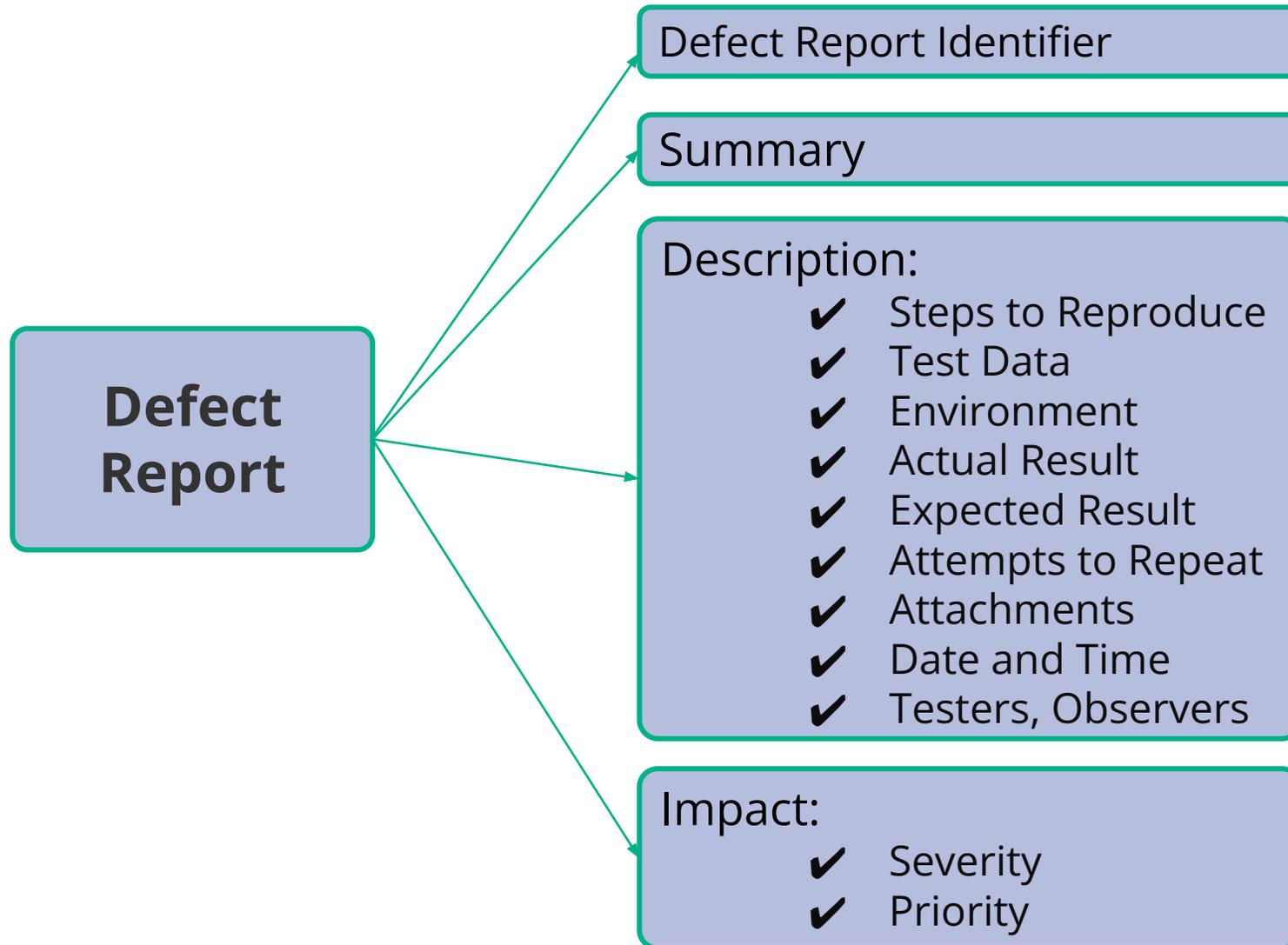


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# Defect Life Cycle



# Defect Report Structure



# Severity and Priority

**Severity** – the degree of impact that a defect has on the development or operation of a component or system

- Impact on functionality
- How serious is the bug?
- QC engineer sets the severity of the defect

**Priority** - the level of business importance assigned to an item, e.g. defect

- Scheduling
- How soon to fix the bug?
- QC engineer sets the priority, but PM finalize it

Severity ↑	High Severity, Low Priority <b>3</b>	High Severity, High Priority <b>1</b>
	Low Severity, Low Priority <b>4</b>	Low Severity, High Priority <b>2</b>
	Priority →	

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# Severity and Priority (examples)

DEFECT	PRIORITY	SEVERITY
Upon login to system "Run time error" displayed on the page, so due to which tester is not able to proceed the testing further	High	High
On the home page of the company's web site spelling mistake in the name of the company is surely a High Priority issue. In terms of functionality it is not breaking anything so we can mark as Low Severity, but making bad impact on the reputation of company site. So it highest priority to fix this	High	Low
System is crashing in the one of the corner scenario, it is impacting major functionality of system so the Severity of the defect is high but as it is corner scenario so many of the user not seeing this page we can mark it as Low Priority by project manager since many other important bugs are likely to fix before doing high priority bugs because high priority bugs are can be visible to client or end user first	Low	High
Spelling mistake in the confirmation error message like "You have registered success" instead of "successfully", "success" is written. Or any cosmetic issues	Low	Low

# Defect Reporting Tips

- ✓ Try to reproduce symptoms when you see them
- ✓ Try to isolate the defect by making carefully chosen changes to the steps used to reproduce it
- ✓ Ensure that this bug is not reported yet
- ✓ Gather as many details as you can:
  - Put down Build# and Environment
  - Make a screenshot or even a video
  - Gather error logs if any
- ✓ Be clear and unambiguous. Be neutral, fact-focused and impartial
- ✓ Report all defect, you have observed



# Defect Tracking Tools

**Defect Tracking Tool** - a tool that facilitates the recording and status tracking of defects and changes.

They often have workflow-oriented facilities to track and control the allocation, correction and re-testing of defects and provide reporting facilities.

Defect tracking tools used at SoftServe projects:

- Seapine TestTrack Pro
- Bugzilla
- FogBugz
- JIRA
- Mantis
- Team Foundation Server (TFS)
- and many others...



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# Defect Tracking Tools

- ✓ Collect defect/request records
- ✓ Assign defect/request record to the responsible person
- ✓ Collect defect/request history
- ✓ Find defect/request by defined condition
- ✓ Filter defect/request list by defined condition
- ✓ Close defect/request record
- ✓ Additionally, export defects



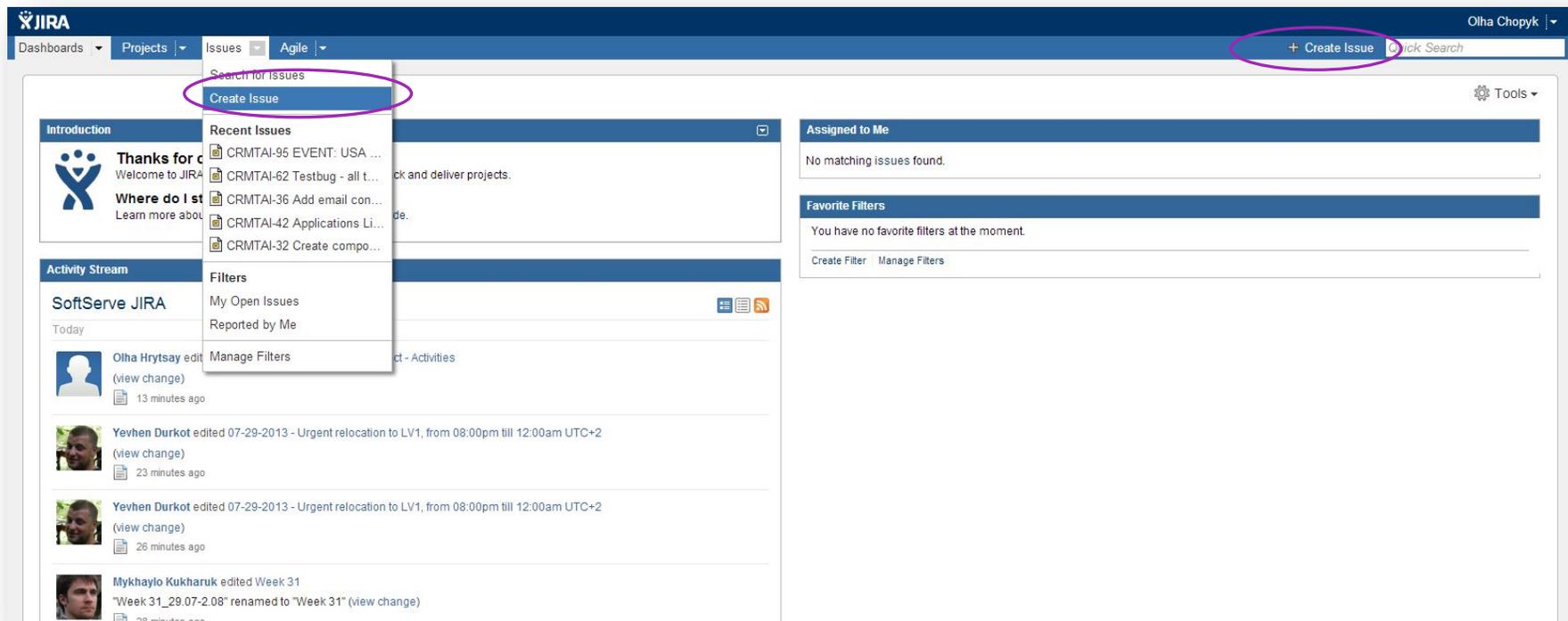
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# Defect Tracking Tool

## Defect Reporting



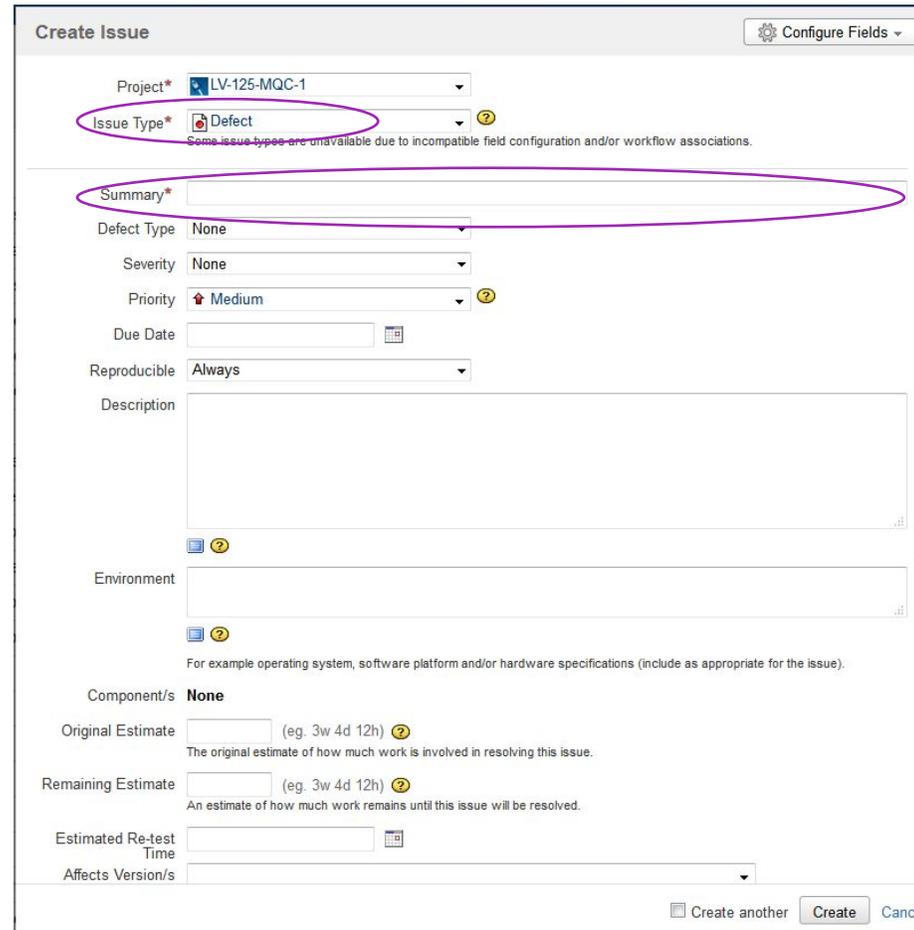
### 1. Click Create Issue



# Defect Tracking Tool

2. Select 'Issue type' = "Defect"

3. Set short and clear Summary



The screenshot shows the 'Create Issue' form in JIRA. The 'Project' field is set to 'LV-125-MQC-1'. The 'Issue Type' field is set to 'Defect', which is circled in purple. The 'Summary' field is empty and also circled in purple. Other fields include 'Defect Type' (None), 'Severity' (None), 'Priority' (Medium), 'Due Date' (empty), 'Reproducible' (Always), 'Description' (empty), 'Environment' (empty), 'Component/s' (None), 'Original Estimate' (empty), 'Remaining Estimate' (empty), 'Estimated Re-test Time' (empty), and 'Affects Version/s' (empty). The 'Create' button is highlighted.



# Defect Tracking Tool

4. Select Severity and Priority of the defect
5. Select Component, where you've found the defect, and Affected Version



Create Issue Configure Fields

Project\*

Issue Type\*  Some issue types are unavailable due to incompatible field configuration and/or workflow associations.

Summary\*

Defect Type

Severity

Priority  High, Medium, Low, Very Low

Due Date

Reproducible

Description  Very Low

Environment

Component/s

Original Estimate  (eg. 3w 4d 12h) The original estimate of how much work is involved in resolving this issue.

Remaining Estimate  (eg. 3w 4d 12h) An estimate of how much work remains until this issue will be resolved.

Estimated Re-test Time

Affects Version/s

Create another

# Defect Tracking Tool

6. Put down Description, Steps, Actual and Expected results into Description field
7. Set all other fields like estimate or Documentation link
8. Attach screenshots, logs, etc.
9. Assign to appropriate person
10. Click 'Create' button



**Create Issue** Configure Fields

Project\*

Issue Type\*  Some issue types are unavailable due to incompatible field configuration and/or workflow associations.

Summary\*

Defect Type

Severity

Priority  ?

Due Date  Calendar icon

Reproducible

Description

?

Environment

?

For example operating system, software platform and/or hardware specifications (include as appropriate for the issue).

Component/s

Original Estimate  (eg. 3w 4d 12h) ?  
The original estimate of how much work is involved in resolving this issue.

Remaining Estimate  (eg. 3w 4d 12h) ?  
An estimate of how much work remains until this issue will be resolved.

Estimated Re-test Time  Calendar icon

Affects Version/s

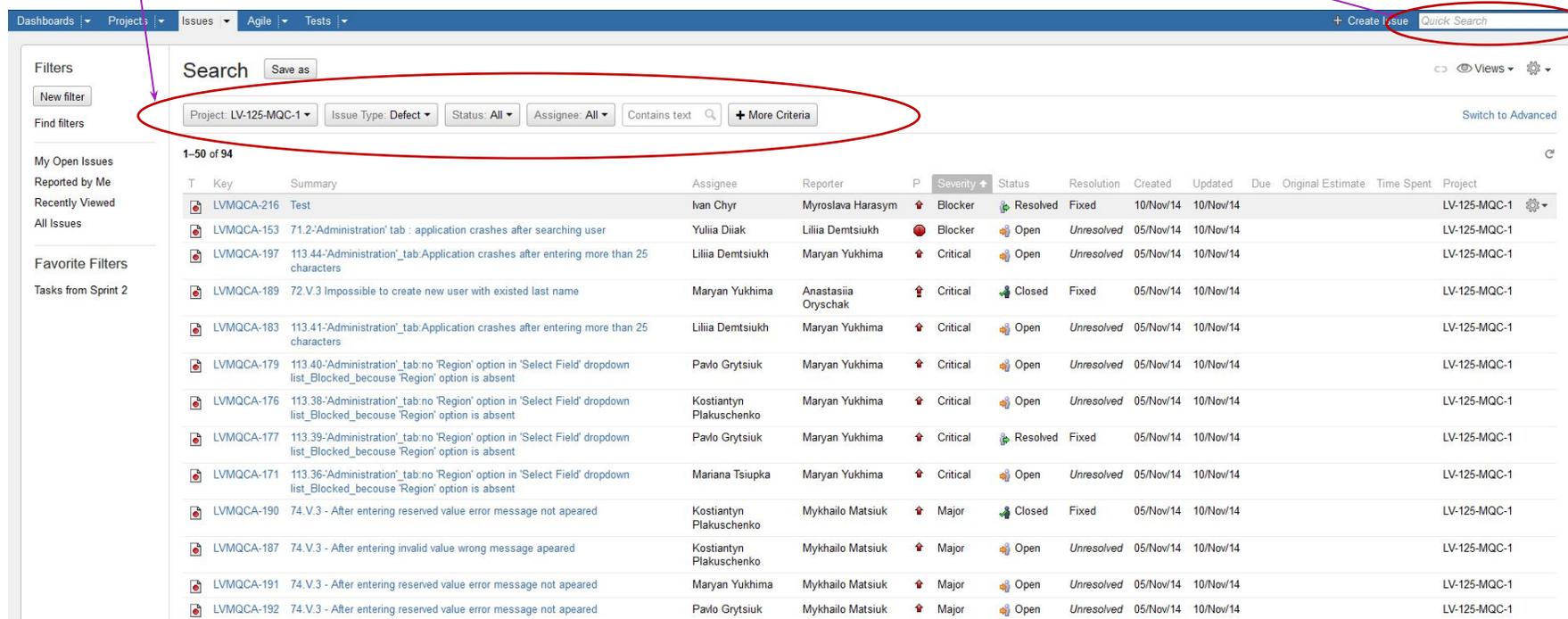
Create another

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# Defect Tracking Tool

Use configurable filter to find defect by its parameter

Use quick search to open exact item if you know its number



Project: LV-125-MQC-1 Issue Type: Defect Status: All Assignee: All Contains text + More Criteria

T	Key	Summary	Assignee	Reporter	P	Severity	Status	Resolution	Created	Updated	Due	Original Estimate	Time Spent	Project
	LVMQCA-216	Test	Ivan Chyr	Myroslava Harasym	🚫	Blocker	Resolved	Fixed	10/Nov/14	10/Nov/14				LV-125-MQC-1
	LVMQCA-153	71.2-'Administration' tab : application crashes after searching user	Yulia Diak	Lilii Demtsiukh	🔴	Blocker	Open	Unresolved	05/Nov/14	10/Nov/14				LV-125-MQC-1
	LVMQCA-197	113.44-'Administration'_tab:Application crashes after entering more than 25 characters	Lilii Demtsiukh	Maryan Yukhima	🔴	Critical	Open	Unresolved	05/Nov/14	10/Nov/14				LV-125-MQC-1
	LVMQCA-189	72.V.3 Impossible to create new user with existed last name	Maryan Yukhima	Anastasiia Orschak	🔴	Critical	Closed	Fixed	05/Nov/14	10/Nov/14				LV-125-MQC-1
	LVMQCA-183	113.41-'Administration'_tab:Application crashes after entering more than 25 characters	Lilii Demtsiukh	Maryan Yukhima	🔴	Critical	Open	Unresolved	05/Nov/14	10/Nov/14				LV-125-MQC-1
	LVMQCA-179	113.40-'Administration'_tab:no 'Region' option in 'Select Field' dropdown list_Blocked_because 'Region' option is absent	Pavlo Grytsiuk	Maryan Yukhima	🔴	Critical	Open	Unresolved	05/Nov/14	10/Nov/14				LV-125-MQC-1
	LVMQCA-176	113.38-'Administration'_tab:no 'Region' option in 'Select Field' dropdown list_Blocked_because 'Region' option is absent	Kostiantyn Plakuschenko	Maryan Yukhima	🔴	Critical	Open	Unresolved	05/Nov/14	10/Nov/14				LV-125-MQC-1
	LVMQCA-177	113.39-'Administration'_tab:no 'Region' option in 'Select Field' dropdown list_Blocked_because 'Region' option is absent	Pavlo Grytsiuk	Maryan Yukhima	🔴	Critical	Resolved	Fixed	05/Nov/14	10/Nov/14				LV-125-MQC-1
	LVMQCA-171	113.36-'Administration'_tab:no 'Region' option in 'Select Field' dropdown list_Blocked_because 'Region' option is absent	Mariana Tsiupka	Maryan Yukhima	🔴	Critical	Open	Unresolved	05/Nov/14	10/Nov/14				LV-125-MQC-1
	LVMQCA-190	74.V.3 - After entering reserved value error message not appeared	Kostiantyn Plakuschenko	Mykhailo Matsiuk	🔴	Major	Closed	Fixed	05/Nov/14	10/Nov/14				LV-125-MQC-1
	LVMQCA-187	74.V.3 - After entering invalid value wrong message appeared	Kostiantyn Plakuschenko	Mykhailo Matsiuk	🔴	Major	Open	Unresolved	05/Nov/14	10/Nov/14				LV-125-MQC-1
	LVMQCA-191	74.V.3 - After entering reserved value error message not appeared	Maryan Yukhima	Mykhailo Matsiuk	🔴	Major	Open	Unresolved	05/Nov/14	10/Nov/14				LV-125-MQC-1
	LVMQCA-192	74.V.3 - After entering reserved value error message not appeared	Pavlo Grytsiuk	Mykhailo Matsiuk	🔴	Major	Open	Unresolved	05/Nov/14	10/Nov/14				LV-125-MQC-1



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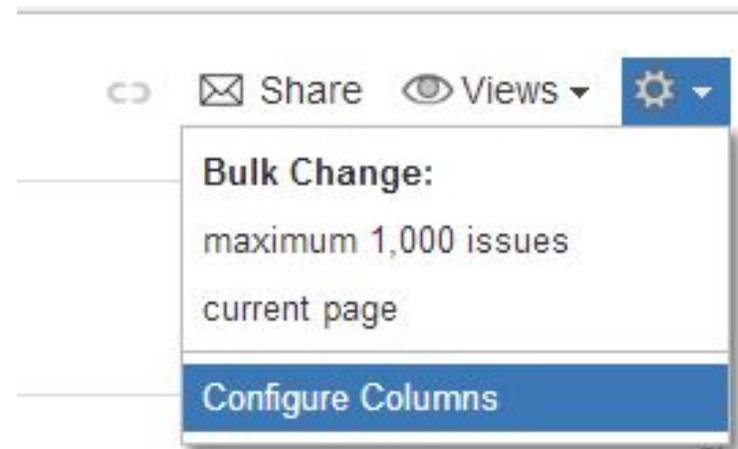
# Defect Tracking Tool



## Other features

1. Use **link** icon to get permanent link of your unsaved filter
2. Use **share** button to share filter with other team members
3. Use **bulk change** if you need to make same change for numerous defects (i.e. change release or assignments)
4. Use **views** menu to set up defect list view

All these filtering abilities are very helpful for defects analysis and statistic gathering



# Revision History

Version	Date	Remark	Author
v.1	June, 2016		M. Harasym
v.2	October, 2018	Update according to new ISTQB Standard	V. Ryazhska

**Thank you**

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