

# How to get your bug fixed fast

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Disclaimer: It is a developer's point of view



# How?

## Invest:

- Money (support)
  - Help with preparing test case
  - Prioritising support bugs
- Time (prepare excellent test case, it is our topic)
  - Developer will be immediately ready to start fixing
  - Higher chance to be chosen earlier
- Both!

# Main thing developer want from you

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**HOW TO REPRODUCE THE BUG?**  
**(a test case)**

# What is important to repeat it (most frequently)

- Query (script, exact steps to reproduce etc.)
  - Database (dump of all related structures)
  - Expected vs received results or stack trace
  - Server version
  - Server configuration
    - Operating system
    - Environment variables
    - Day time and phase of the moon
-

# Where to get query

- You made it (easiest but rare case)
- Logs (most realistic way)
  - General query log has impact on performance (switch it temporary or on non-production database)
  - It is not the last query in the log which caused the problem, but one of the last (last on problematic connection)
- Crash report in your error log

# Database issue logging

- Confidential information (everything attached to the issue is public, use foundation ftp if it is confidential)
- Size

We are happy to get test case of any size and promise to not sell data, but better be safe than sorry...

# How to solve the database problems

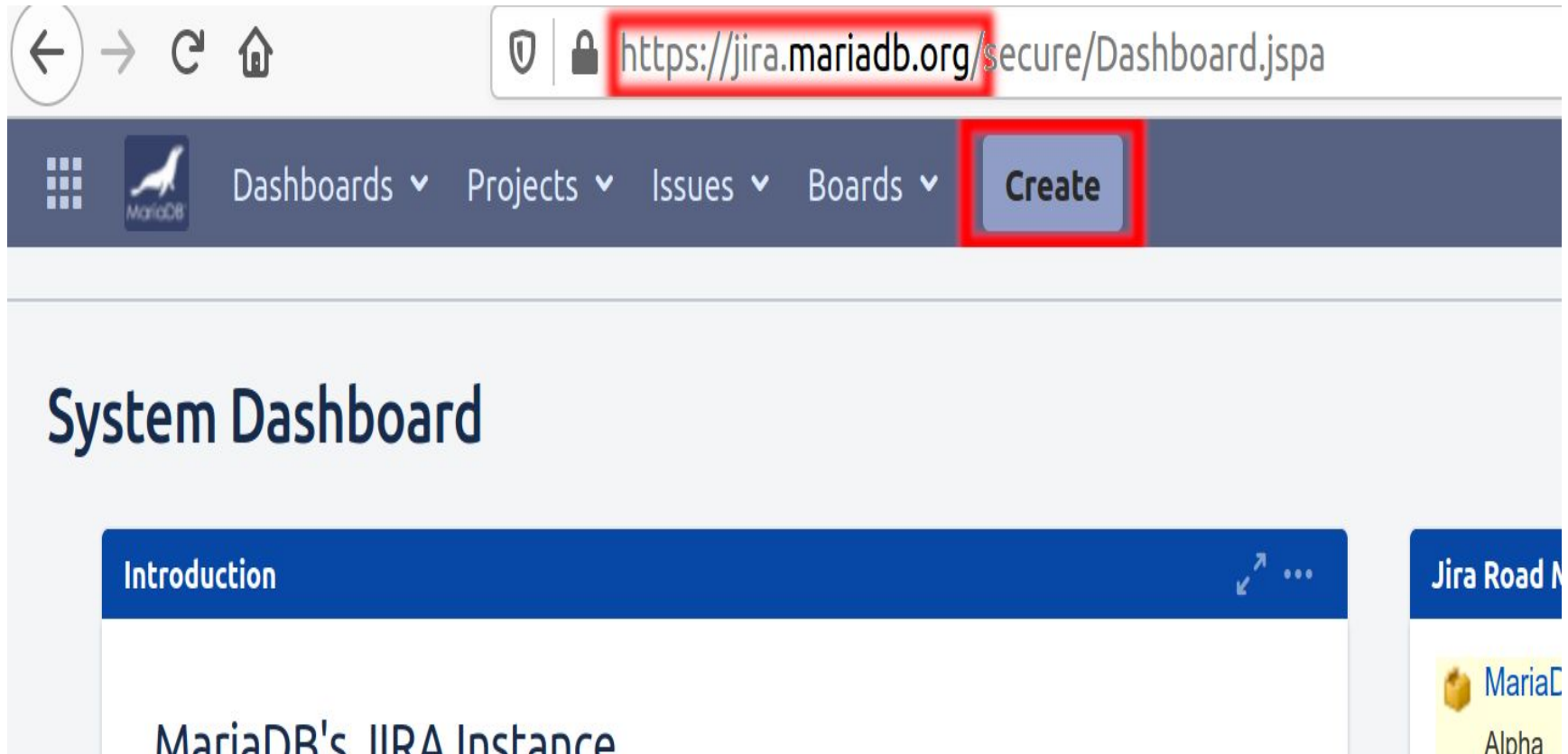
- Use schema only (it is not the best variant, in this case it is better also describe data distribution)
- Fill the schema with random or generated data (maybe you have test/demo data for application development) and can reproduce the problem.
- For more security after repeating you can rename tables/fields/procedures/indices in the schema and the query
  - Tables t1, t2, t3..
  - Fields f1, f2, f3...
  - Procedures p1, p2, p3...
  - ...



# Frequent mistakes I saw

- Trying to prove that bug exists instead of showing how to repeat it
- Detailed description of not so important details like operating system, standard configuration, but close to nothing about how to repeat bug
- Only stack trace (sometimes it is enough but most frequently no)
  - Also core dump with matching mysqld binary and ldd files will be good addition to the stack trace (for ldd see [https://github.com/mariadb-corporation/mariadb-qa/blob/master/ldd\\_files.sh](https://github.com/mariadb-corporation/mariadb-qa/blob/master/ldd_files.sh))

# Reporting a bug



The screenshot shows a web browser window with the URL `https://jira.mariadb.org/secure/Dashboard.jspa` highlighted in red. The browser's navigation bar includes back, forward, refresh, and home icons. Below the browser, the Jira interface features a dark blue navigation bar with the MariaDB logo and menu items: Dashboards, Projects, Issues, Boards, and a highlighted 'Create' button. The main content area is titled 'System Dashboard' and contains a card for 'Introduction' with the text 'MariaDB's IIRΔ Instance'. A sidebar on the right shows 'Jira Road M' and 'MariaD Alpha'.

# Project and type

## Create Issue

 Config

Project\*



MariaDB Server (MDEV)



Issue Type\*



Bug



Summary\*

# Summary, Priority and Affected Version/s

Summary\*

Sum() produce incorrect result

Priority



Major



Component/s



Start typing to get a list of possible matches or press down to select.

Affects Version/s










10.1.46 x



Start typing to get a list of possible matches or press down to select.

Environment

# Environment, Description and Attachment

Environment	<input type="text" value="Ubuntu 20.04"/>
	<small>For example operating system, software platform and/or hardware specifications (include as appropriate)</small>
Description	<div><p>Style ▾ <b>B</b> <i>I</i> <u>U</u> <u>A</u> ▾ <u>A</u><sup>o</sup> ▾  ▾  ▾    ▾  ▾</p><p>In uploaded example data base {code} SELECT SUM(*) FROM T1 WHERE F2=3 {code} we get 5 instead 4.</p></div>
Attachment	<div> </div> <div> Drop files to attach, or <a href="#">browse</a>.</div>

# Create

**Create Issue** Configure Fields

Affects Version/s: 10.1.46 ×

Environment: Ubuntu 20.04

Description: In uploaded example data base  
{code}  
SELECT SUM(\*) FROM T1 WHERE F2=3  
{code}  
we get 5 instead 4,|

Create another **Create** Cancel

# Fields

## Important

- Project
- Issue Type
- Summary
- Description
- Attachments (Always public, use mariadb foundation FTP server for something private or secret  
<https://mariadb.com/kb/en/meta/mariadb-ft-p-server/>)

## Can be left as is but...

- Priority (default is OK, you can use it to point how it is important for you, but later it will be used for our priority)
- Component/s (difficult to find without deep analysis, just leave as is if unsure)
- Environment (very rare it can be helpful, you can put OS here, no need spend long time on it)
- ... other fields (usually used for the issue handling)

# Communication

You will get emails with changes in your bug reports.

- Comments - they used to communicate between developers or support, internal notes in bug processing, but also to ask reporter questions (it is very important).
- Label. It is important for you to notice if the 'need\_feedback' label is added to the bug report it means that someone need your feedback.



# If you have time and inspiration

- Before any improvement save your current repeatable test case
- Reduce database
  - Remove unused tables
  - Remove unused fields and indices
- Simplify the query (leave only important parts)
  - Tables
  - Clauses
  - Fields
  - Functions
  - ...