MariaDB
OPENWORKS
BE UNSTOPPABLE

MARIADB SHELL: AN UPGRADED ADMIN TOOL

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THE LONG HISTORY OF MARIADB CLIENTS

- Some MariaDB Client tools may not have been well maintained.
- They are becoming outdated and bring home the message that we are a fork.

```
root@26cecbf2dc49:~# mariadb
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 438
Server version: 10.5.4-MariaDB-1:10.5.4+maria~focal mariadb.org binary

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```
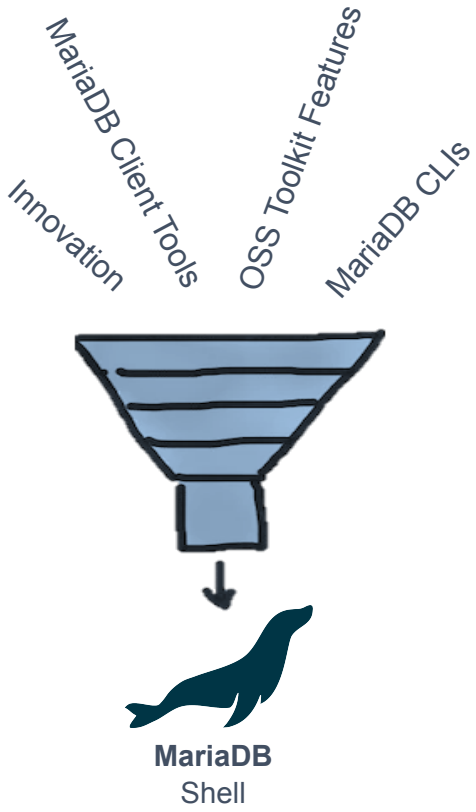

- C ained a loyal following in the industry to fill feature gaps but may not be compatible with modern MariaDB.
- Many customers maintain private or "one-off" scripts
- MariaDB Corporation currently has multiple command line tools for administering and using our suite of products, written in different languages and with different flags and options

[Proprietary to MariaDB]

IDEA FUNNEL



[Proprietary to MariaDB]

A SINGLE INTEGRATED ENTERPRISE TOOL FOR EASY ADMINISTRATION, AUTOMATION, DATA MANAGEMENT AND TROUBLESHOOTING

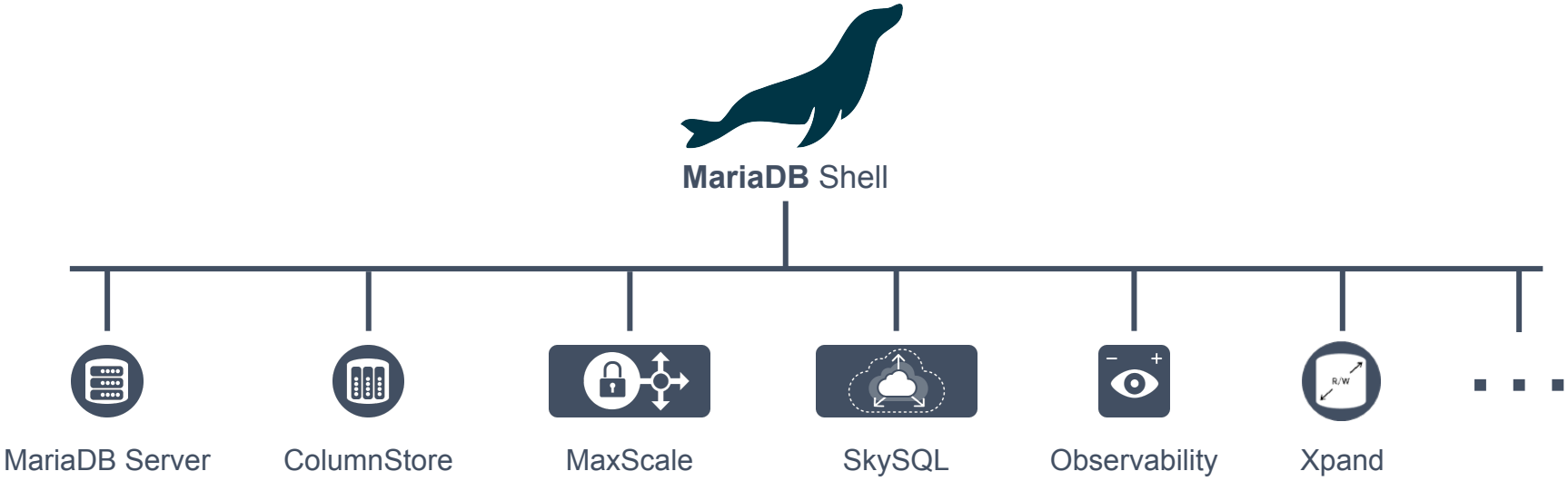
MariaDB

WHY MARIADB SHELL?

- Central “MariaDB Console”: used by Ops, DBAs and Developers
  - Smart, familiar, with modern interface
- Fully parameter driven for experts and scripts
- “Command Line Wizard” for ease of use
  - No need to know the required parameters

[Proprietary to MariaDB]

INTERFACE FOR MANY MARIADB PRODUCTS



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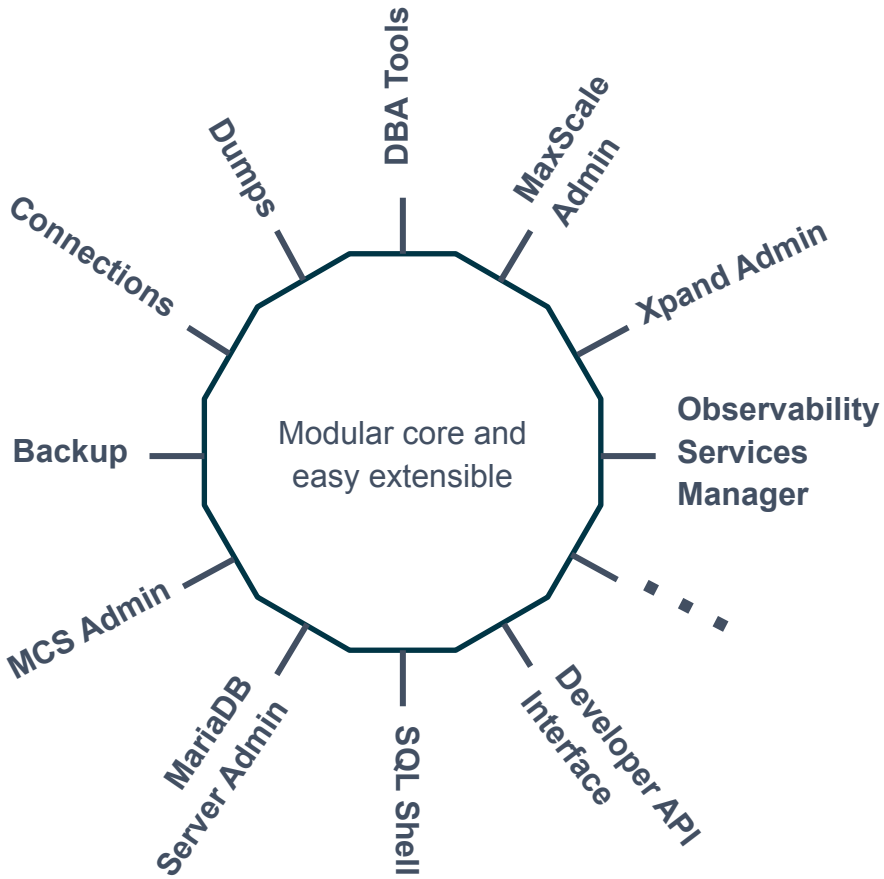
ARCHITECTURE



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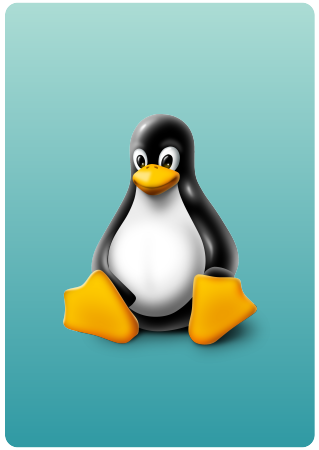
SUPPORTED PLATFORMS



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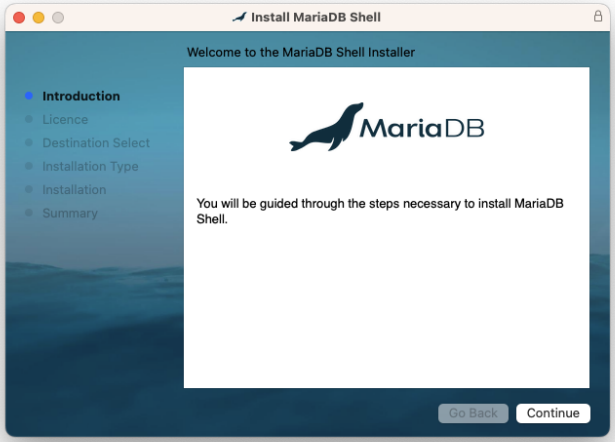
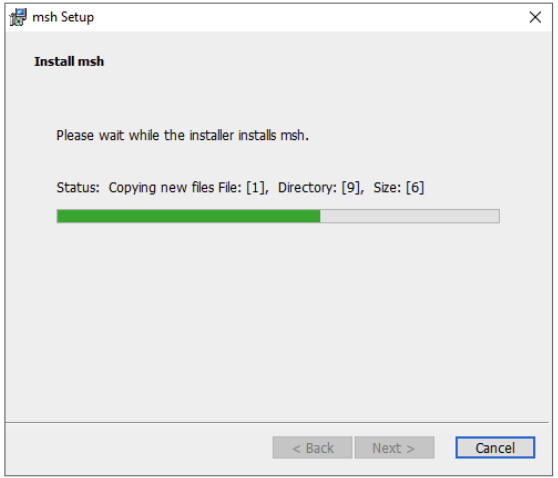
INSTALLATION





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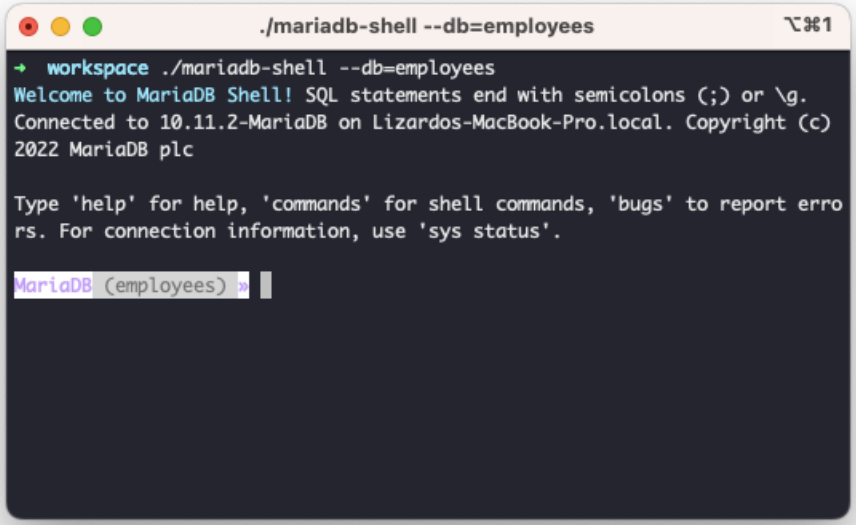
MODERN INTERFACE



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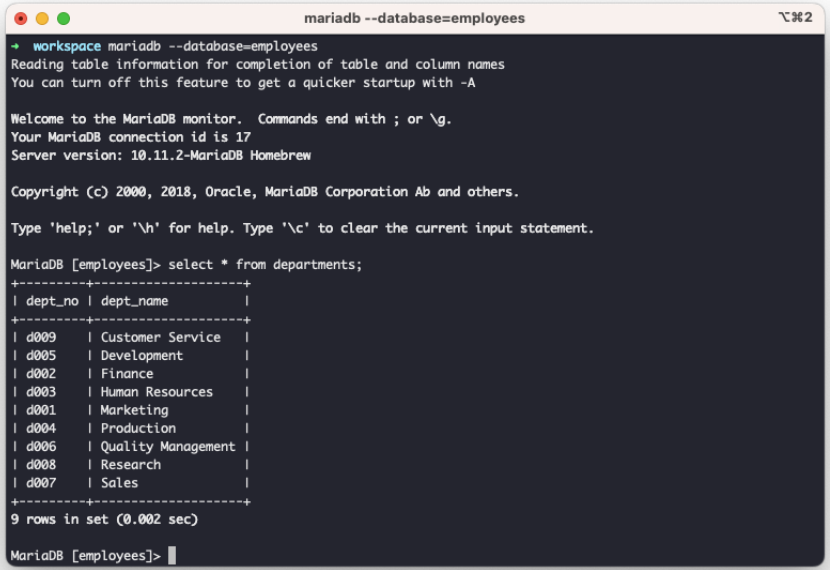
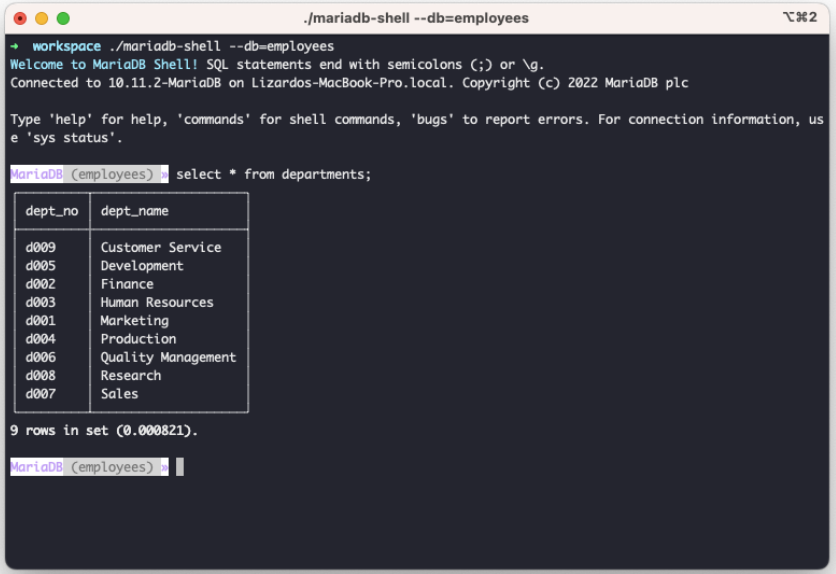
MODERN INTERFACE





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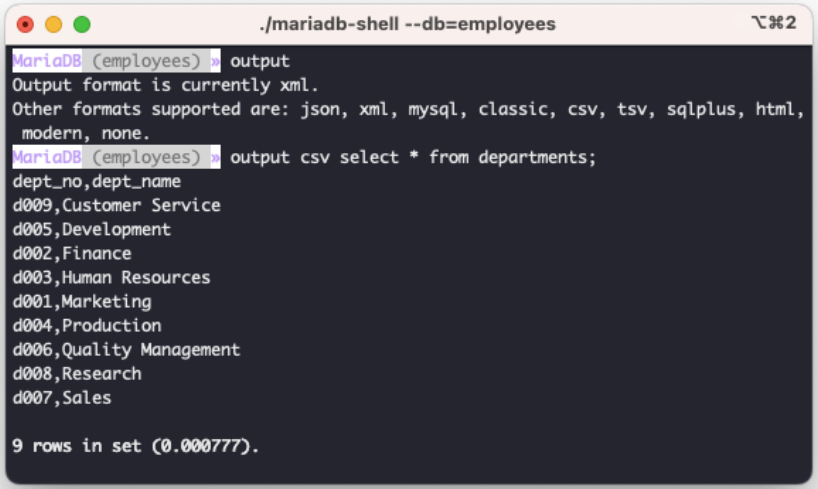
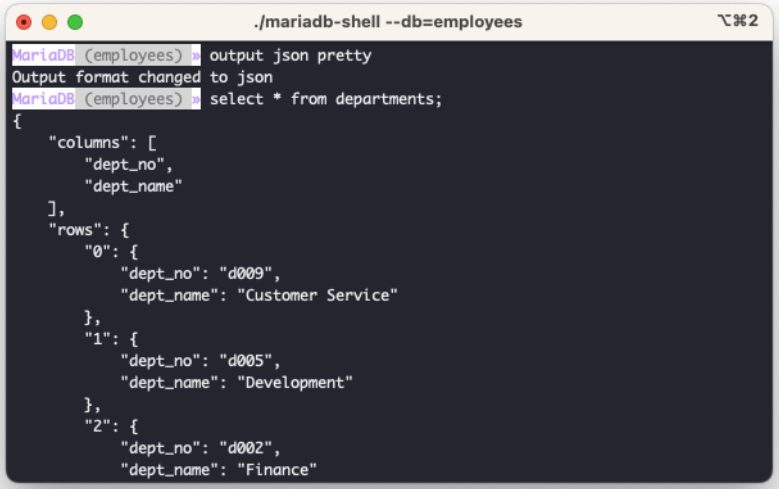
SUPPORT MULTIPLE OUTPUT FORMATS



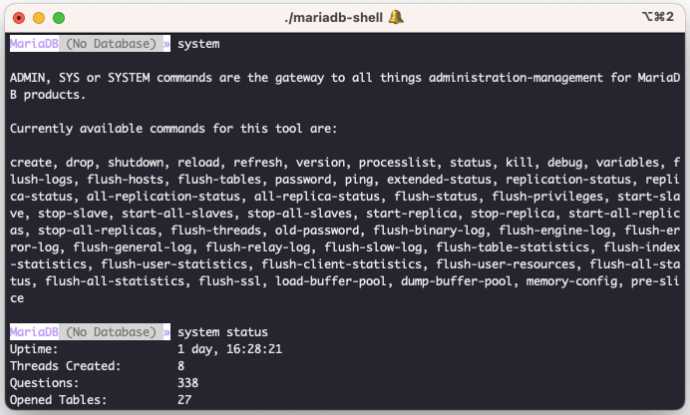


[Proprietary to MariaDB]

COMMANDS FOR ADVANCED ADMINISTRATIVE OPERATIONS

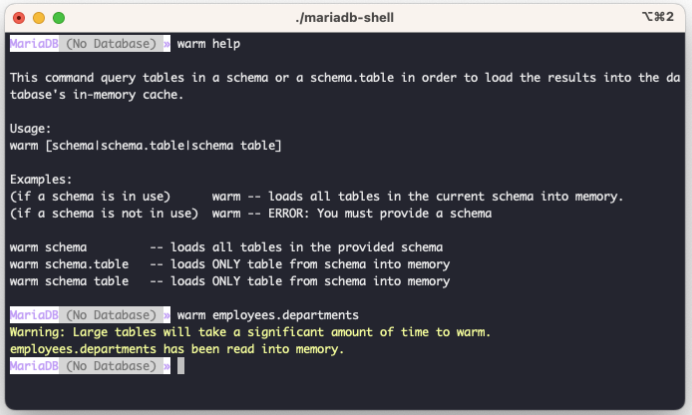
Admin

- Gives you full control of MariaDB and lets you diagnose any problems on the system



Warm

- Populates the database's in-memory cache with a table or schema to warm temporal locality



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COMPATIBILITY

MariaDB-Shell is compatible with the MariaDB or MySQL command line client.

- Commands:
  clear, pager, connect, delimiter, quit, status …
- Short commands:
  \p, \G, \w, \g, \c, \?, \d ...
- Command line options:
  --delimiter, --database, --pager …

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ONE INTERFACE FOR ALL SKYSQL SUPPORTED SERVICES

Enterprise Server

Deploy a cloud database service for transaction processing with persistent storage, replication, load balancing and read/write splitting all configured out of the box and ready to go.

Serverless Analytics

Deploy Serverless Analytics powered by Apache Spark SQL with a built-in Notebook powered by Apache Zeppelin for massively scalable interactive and collaborative analytics.

Observability Services

Automate and observe your database instances across AWS, Google and on-premises from a single pane of glass within SkySQL.

Columnar Analytics

Deploy a cloud data warehouse service for ad hoc, interactive analytics on billions of rows with data stored in a columnar format on low-cost object storage and massively parallel processing.

Distributed SQL

Deploy a distributed SQL database service to elastically scale with full performance and availability. Xpand enables larger databases in terms of size, user engagement and global reach.

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REAL WORLD USE CASES

- Self-service guidance to slice tables
  - MariaDB Shell can also pre-slice tables and warm them into memory
- Monitor and administer replication streams
- Install and configure Remote Observability Service
- Use the Grants Module to frequently audit, compare and alert on user and grant changes

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DEMOS

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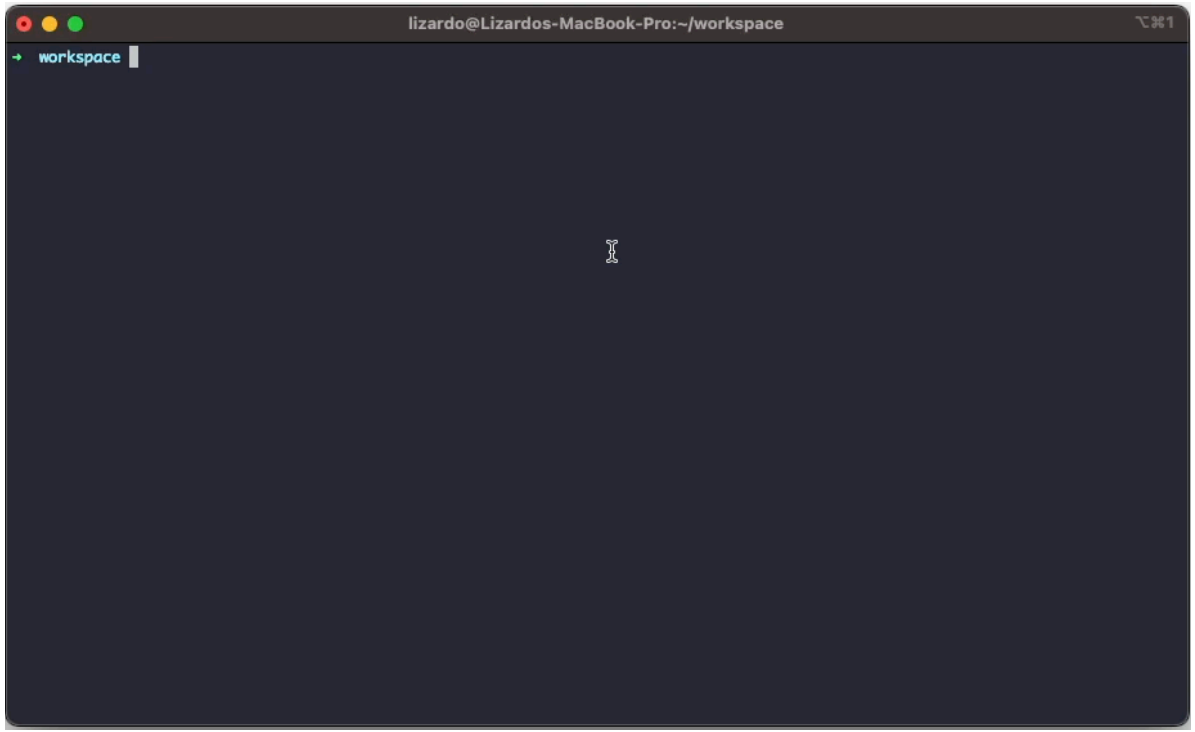
BASIC COMMANDS



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FISH

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FISH - FULL INTERNAL SYSTEM HISTOGRAM

- Collects **system** (CPU, RAM, Disk usage ..) and **MariaDB** (status, current load, running queries, cache status..) metrics and definitions.
- Stores the data in a Sqlite DB or offloads to a dedicated MariaDB schema.
- Provides data to support tickets for a system administrator.
- Generates HTML documents to allow the same level of information as the Oracle AWR or pgBadger.
- Allows DB admins to monitor a system before a crash or to finetune performances.

[Proprietary to MariaDB]

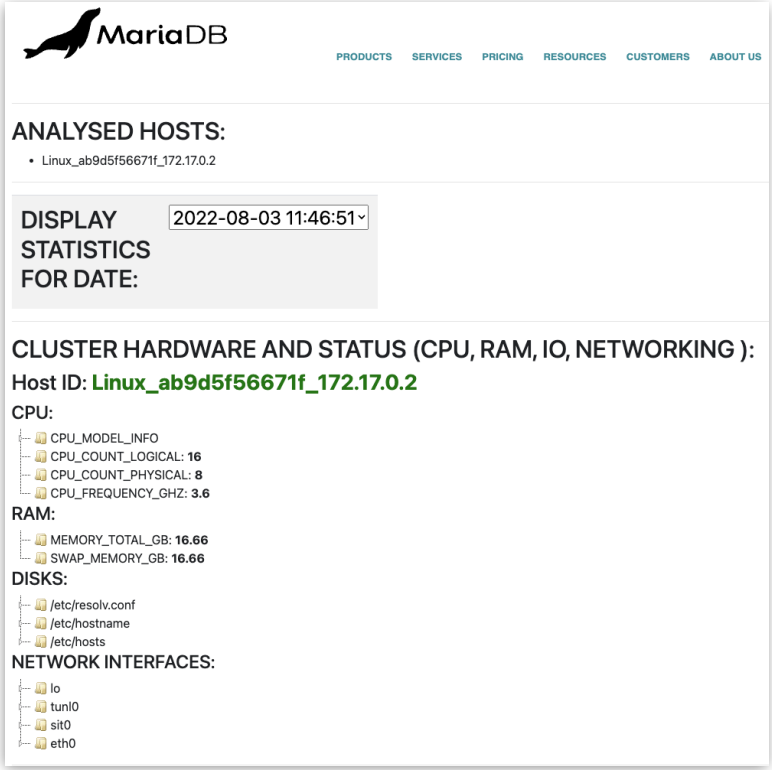
FISH - FULL INTERNAL SYSTEM HISTOGRAM

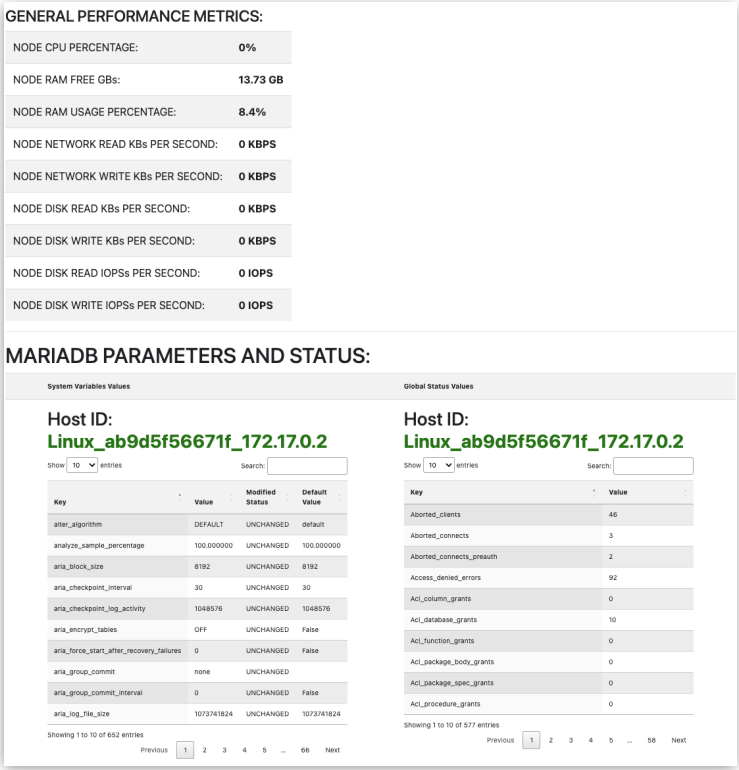
- TODO:

<Insert here the terminal recording showing how to collect, dump and generate a report>

[Proprietary to MariaDB]

FISH - REPORT





[Proprietary to MariaDB]

ROS

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ROS - REMOTE OBSERVABILITY SERVICE

- SkySQL Observability service functionality extends beyond SkySQL deployed databases to MariaDB enterprise customers on-premises or in private clouds.

<TODO: Insert here the terminal recording>

[Proprietary to MariaDB]

MAXSCALE

MariaDB

MAXSCALE

<TODO: Insert here the terminal recording>

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CONCLUSION

WHY SHOULD YOU USE MARIADB SHELL?

- Single tool that contains everything you need to administer, automate, manage data, and troubleshoot MariaDB products
- Updates all existing MariaDB Client tools that you currently rely on
- Modern interface, easy to use, consistent flags and parameters
- Tested against MariaDB products, guaranteed to work
- Will be the future home of all newtools
  - Regular updates from MariaDB
- New features will be added here, not in separate tools

[Proprietary to MariaDB]

NEXT STEPS

Check out these sources
to learn more about MariaDB

- **MariaDB-Shell is now Generally Available on the following platforms:**
  - RHEL, CentOS, AWS 2 - 7.x
  - RHEL & Rocky Linux 3 - 8.x
  - RHEL & Rocky Linux 3 - 9.x
  - Ubuntu 18.04
  - Ubuntu 20.04
  - Ubuntu 22.04
  - Debian 10
  - Debian 11
  - Windows
  - MacOS - Intel and Apple silicon
- **Install and try it today!**
  - **https://mariadb.com/downloads/enterprise/**

MariaDB

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THANK YOU