Safe Harbor Statement

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle’s products remains at the sole discretion of Oracle.
Where are we in 2019?
MySQL Market Share
DB-Engines 2019

<table>
<thead>
<tr>
<th>Rank</th>
<th>DBMS</th>
<th>Database Model</th>
<th>Apr 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Oracle</td>
<td>Relational, Multi-model</td>
<td>1279.94</td>
</tr>
<tr>
<td>2.</td>
<td>MySQL</td>
<td>Relational, Multi-model</td>
<td>1215.14</td>
</tr>
<tr>
<td>3.</td>
<td>Microsoft SQL Server</td>
<td>Relational, Multi-model</td>
<td>1059.96</td>
</tr>
<tr>
<td>4.</td>
<td>PostgreSQL</td>
<td>Relational, Multi-model</td>
<td>478.72</td>
</tr>
<tr>
<td>5.</td>
<td>MongoDB</td>
<td>Document</td>
<td>401.98</td>
</tr>
</tbody>
</table>

MySQL is the 2nd most popular database
MySQL Market Share
Stack Overflow Developer Survey 2019

MySQL is the most used database
JetBrains Survey 2018
The State of Developer Ecosystem

Which databases do you regularly use, if any? (%)

MySQL: 58%
PostgreSQL: 26%
MongoDB: 25%
SQLite: 23%
MS SQL Server: 20%
Redis: 20%
Oracle Database: 16%
h2: 5%

Cassandra: 3%
Amazon Redshift: 3%
DB2: 2%
HBase: 2%
Neo4j: 2%
Couchbase: 1%
Other: 6%
None: 9%

MySQL is the most popular database
Nearly 10 Years of Oracle Stewardship

More Investment, More Innovation

2x Engineering Staff
3x QA Staff
2x Support Staff

2010 2019
Any New Trend?
Are you seeing the same thing we see?
New Trend: Database Consolidation

- To Save Costs
- To Simplify Database Management
- And Because NoSQL + SQL = MySQL
- Companies are replacing their NoSQL databases with MySQL 8.0
What is MySQL 8.0?
A lot of new features & a new release strategy
MySQL 8.0 is ...

• More innovation
• 2 year of development
• 400+ worklogs
• Over 250 new features
• 5000+ bug fixes
• 500+ new tests
• ... a Document Store too!
One year of MySQL Releases

- 2018-04-19  8.0.11  (GA)
- 2018-07-27  8.0.12  (3 contributions)
- 2018-10-22  8.0.13  (10 contributions)
- 2019-01-21  8.0.14  (9 contributions)
- 2019-02-01  8.0.15
- 2019-04-25  8.0.16  (8 contributions)
Happy Birthday!

MySQL 8.0. : 1 year since GA
MySQL Downloads by Version

April 2018

- MySQL 5.7: 65%
- MySQL 5.6: 24%
- Other: 11%

April 2019

- MySQL 8.0: 21%
- MySQL 5.7: 57%
- MySQL 5.6: 19%
- Other: 4%
MySQL 8.0: One Giant Leap for SQL

“This is a landmark release as MySQL eventually evolved beyond SQL-92 and the purely relational dogma. Among a few other standard SQL features, MySQL now supports window functions (over) and common table expressions (with). Without a doubt, these are the two most important post-SQL-92 features.”

https://modern-sql.com/blog/2018-04/mysql-8.0
MySQL 8.0 – Most Innovative Product of the Year Award

Database Technology Conference of China (DTCC)
3 New Leading Solutions

- MySQL Document Store (NoSQL)
- MySQL InnoDB Cluster
- MySQL Shell
Many New Features

- **SQL DML**
  - CTEs
  - Window Functions
  - LATERAL
  - ...

- **SQL DDL**
  - Instant ADD COLUMN
  - RESTART
  - SET PERSIST
  - CHECK constraints
  - ...

- **Indexes**
  - Invisible
  - Descending
  - Functional
  - ...

- **Functions**
  - REGEXP_
  - BIN_TO_UUID
  - GROUPING
  - .....
More New Features

- **JSON**
  - New functions JSON_
  - In-place updates
  - Faster sorting
  - ...

- **GIS**
  - Spacial Reference Systems
  - Geographic R-trees
  - Length Units in ST_Distance
  - ...

- **Character sets**
  - UTF-8 (utf8mb4) as default
  - General Unicode 9.0 collations
  - ...

- **Information_Schema**
  - Views over Data Dictionary
  - ....
Even More New Features

- **Performance_Schema**
  - PFS Indexes
  - Instrument server errors
  - Statement latency histograms
  - ...

- **SHOW**
  - List hidden columns
  - List index information

- **Optimizer**
  - Histograms
  - Adaptive scan buffer size
  - IO costs ram <> disk
  - NOWAIT
  - ...

- **InnoDB**
  - New redo log implementation
  - Lock Scheduler (CATS)
  - Persistent auto_increments
  - ...
Again More New Features

- Data Dictionary
  - Transactional DD
  - Atomic & crash safe DDL
  - Automatic upgrade
  - ...

- Network
  - Multiple bind addresses
  - New Admin Port
  - ...

- Error Logging
  - Improved error logging
  - Error logging in JSON
  - Filters for error log
  - New --log-slow-extra
  - ...

- Replication
  - Multi-source per channel filters
  - Atomic DDL recovery binlog
  - Binary log encryption at rest
  - Server versions in binlog
  - ...

Finally More New Features

• Group Replication
  - Online Primary Election
  - Online Mode Switch
  - Consistent Reads
  - ...

• Router
  - Part of the server source-tree
  - Extra routing strategy
  - Reduced metadata-cache TTL
  - ...

• Security
  - SQL Roles
  - Dual Passwords
  - Data Masking (Enterprise)
  - SSL Certificates Rollout
  - ...

• Shell
  - Upgrade checker
  - Import JSON
  - User defined reports
  - ...

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Not Only New Features But Also Better Performance!

MySQL 8.0 Sysbench Benchmark: **IO Bound** Read Only (Point Selects)

MySQL 8.0 Sysbench Benchmark: Read Write (update nokey)
And the Community?

What's the role of the Community in MySQL?
MySQL & the Community

Not only contributions are valuable for us, we also appreciate:

• Bug reports
• Feedback
• Feature requests
• Evangelism (blog, presentations, books, forums and slack)
• Tools around MySQL
MySQL & the Community (2)

MySQL Contributor 2019 Reward Program Winners:

- Laurynas Biveinis
- Daniel Black
- René Cannaò
- Vin Chen
- Daniël Van Eeden
- Gabriella D’Ávila Ferrara
- Bill Karwin
- Alexey Kopytov
- Felix Liang
- Tomita Masahiro
- Giuseppe Maxia
- Simon Mudd
- Shlomi Noach
- Zsolt Parragi
- Alex Rubin
- Sveta Smirnova
- Yura Sorokin
- Sugu Sougoumarane
- Peter Zaitsev
Successful Collaboration
Examples of collaboration between MySQL and Community for the best!
MySQL 8.0 ADD INSTANT COLUMN

HISTORY OF A GREAT CONTRIBUTION!
Fra poco sarà l’anniversario di quando mi hai promesso che MySQL avrebbe fatto un repository di minimal tarballs...

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Giuseppe Maxia
@datacharmer

Good news for #dbdeployer users.
MySQL 8.0.16 includes Minimal installation tarballs: 84 MB instead of 439.
dev.mysql.com/downloads/mysq...
Thanks, @lefred!
Join us @Oracle Code One + OOW: September 15-20, 2019
Follow us on Social Media

https://www.facebook.com/mysql

https://twitter.com/mysql

https://www.linkedin.com/company/mysql
Join us on MySQL Community Slack

https://lefred.be/mysql-community-on-slack/
Visit our Kiosk for a Photo-shoot with Sakila
Meet the MySQL Team at Conference

Luís Soares  Norvald Ryeng  Mike Frank  Dave Stokes

Sunny Bains  Dimitri Kravtchuk  Ståle Deraas  Frédéric Descamps

Patrick Galbraith  Kenny Gryp  Pedro Andrade

MySQL