

DATABASE MANAGEMENT SYSTEMS

RESEARCH PAPER

ORACLE

OPEN SOURCE OR NOT

Oracle is not an open-source database, but they do support a lot of opensource projects such as MySQL, and Oracle Linux.

COMMERCIAL OR EDUCATIONAL

Oracle is a commercial database that can be used for educational purposes because Oracle does offer a free version.

WHAT PERCENTAGE OF MARKET SHARE THEY OWN

When you combine all versions of Oracle it comes out to 6.74%.

WHAT PLATFORM THEY RUN ON

Oracle is supported on various Linux operating system

THEIR APPLICATION (WHO MAY USE IT)

This heavily depends on which edition you are referring to; Oracle has three different editions that vary from free to extremely expensive. The Enterprise Edition is the most expensive edition that allows for any number of CPUs, no limits on memory or database size and has premium features not included in other editions. The Standard Edition is a restricted version of the Enterprise Edition, you still get no limits on the size of your database and memory, but you can only have up to four CPUs, and you are missing some premium features. The Expression Edition is the free version that is available to anyone to use. However, you are limited to two or less CPUs and a maximum of 2GB of RAM and 12GB of user data, you will also only have access to very limited features.

THEIR MODEL RELATIONAL OBJECT RELATIONAL, OR ORIENTED

Oracle has extended their relational model to an object relational model. This allows applications to specify what content is required, such as an application requesting an employee name or number. It has features such as user-defined types, inheritance, and polymorphism

SOURCES

<https://www.youtube.com/watch?v=QHYuuXPdQNM>

<https://www.datanyze.com/market-share/databases--272>

<https://docs.oracle.com/database/121/CNCPT/intro.htm#CNCPT88784>

<https://www.oracletutorial.com/getting-started/what-is-oracle-database/>
<https://developer.oracle.com/open-source/>

MS ACCESS

OPEN SOURCE OR NOT

MS Access is not open source.

COMMERCIAL OR EDUCATIONAL

MS Access is a commercial database though it is less expensive than other commercial ones.

WHAT PERCENTAGE OF MARKET SHARE THEY OWN

MS Access has 8.25% of the market shares.

WHAT PLATFORM THEY RUN ON

MS Access only runs on Windows.

THEIR APPLICATION (WHO MAY USE IT)

MS Access is accessible to both businesses and everyday users; this is because it's cheaper price.

THEIR MODEL RELATIONAL, OBJECT RELATIONAL, OR ORIENTED

MS Access is a relational database management system.

SOURCES

[https://www.navisite.com/blog/open-source-vs-commercial-database-systems/#:~:text=Today%2C%20the%20top%20commercial%20databases,and%20Microsoft%20Access%20\(7\).](https://www.navisite.com/blog/open-source-vs-commercial-database-systems/#:~:text=Today%2C%20the%20top%20commercial%20databases,and%20Microsoft%20Access%20(7).)

<https://www.datanyze.com/market-share/databases--272>

<https://www.apps4rent.com/blog/ms-access-system-requirements/>

<https://support.microsoft.com/en-us/office/database-design-basics-eb2159cf-1e30-401a-8084-bd4f9c9ca1f5>

MYSQL

OPEN SOURCE OR NOT

MySQL is an open source database management system that has various editions and you can pay for licenses as well.

COMMERCIAL OR EDUCATIONAL

MySQL is widely used by educational institutions and one of the most popular databases used for teaching curriculums.

WHAT PERCENTAGE OF MARKET SHARE THEY OWN

MySQL has the single largest percentage of the database market share at 31.78%.

WHAT PLATFORM THEY RUN ON

MySQL is able to be run on Linux, Windows, Mac OS, and many others

THEIR APPLICATION (WHO MAY USE IT)

MySQL is available to anyone and everyone to use and completely free, the only exception is if you want a license for it then you will have to buy it from Oracle.

THEIR MODEL RELATIONAL OBJECT RELATIONAL, OR ORIENTED

MySQL is only a relational database rather than an object relational database

SOURCES

<https://www.mysql.com/industry/education/#:~:text=MySQL%20is%20a%20proven%2C%20cost,by%20scientists%20in%20research%20institutions.>

<https://www.datanyze.com/market-share/databases--272>

<https://www.techtarget.com/searchoracle/definition/MySQL#:~:text=MySQL%20is%20an%20Oracle%2Db%20acknowledged,including%20Linux%2C%20UNIX%20and%20Windows.>