# *Data base management*

- MySL
- Postgre SQL
- SQL Server

# What is RDBM?

RDBMs are software systems that enable users to define, create, maintain and control access to relational databases.

Relational, because the databases' tables are inter-jointed / inter-connected with a specific hierarchy (one-to-one, one-to-many and many-to-many).

So instead of having one gigantic table with multiple columns and rows we can divide this main table into inter-linked sub-tables. Making it easier to access data, to understand the database and to handle complex data configuration.

## Most Popular Database P

| | 2019 | 2018 |
|---|---|---|
| MySQL | 52% | 59% |
| PostgreSQL | 36% | 33% |
| MS SQL Server | 34% | 42% |

# *MySQL*

MySQL is the most popular RDBMS. It was initially released the 23 May 1995 and written i[n] is currently owned by Oracle Corporation.

It is used by many popular companies: Google, LinkedIn, Amazon, Netflix, Faceboo[k] Youtube...

MySQL is open-source and benefits from a very big community.

As a RDBMS it uses a strict schema model (data inputs must strictly respect a certain schema flexibility as in NoSQL) and relational nature of its data.

As a SQL (structured query language) it uses queries to obtain data via JOINS to join / conne[ct] together.

Compared to NoSQL, SQL allows to automatically update data redundant in different p databases.

# *Postgre SQL*

Postgre SQL is the second most popular RDBMS. It was initially released the 8 July 1996 and C. It is developped and owned by Owned by PostgreSQL Global Development Group.

It is used by many popular companies: Cisco, Apple, Skype.…

MySQL is open-source and benefits from a very big community.

As a RDBMS it uses a strict schema model (data inputs must strictly respect a certain schema flexibility as in NoSQL) and relational nature of its data.

As a SQL (structured query language) it uses queries to obtain data via JOINS to join / conne together.

Compared to NoSQL, SQL allows to automatically update data redundant in different p databases.

# SQL Server

SQL Server is also a RDBMS. It was initially released the 2 April 1989 and written in C,C++ was developped and owned by Microsoft.

It is used by many popular companies: EdgeWood College, Palo Alto University, University,...

MySQL is a commercial solution (everything is licensed so must be purchased).

As a RDBMS it uses a strict schema model (data inputs must strictly respect a certain schema flexibility as in NoSQL) and relational nature of its data.

As a SQL (structured query language) it uses queries to obtain data via JOINS to join / conne together.

Compared to NoSQL, SQL allows to automatically update data redundant in different p databases.

## SQL Server

- Licensed
- Owned by Microsoft
- Isolate processes as sepamte OS proceses
- More functionality regarding temp t2bles (divide tables into loral a global), B+tier with complex proce
- Flexible search
- Smaller community but MicrDs support team
- Targeted to large compa
- ProfE•Ssional managementto big bUsinesse.S

## PostgreSQL

- Open-sDLIrce
- Owned byPostgreSQL Global Development Group
- Scalable buffer pool to pull cache
- More functi onaJity regarding temporary iables (divide tables 1nto localand global), Better with complex processes
- R›ch automated functionality lot index management
- Belongs to the Oracle ecDsy3tem (very large community)
- Targeted tD all sizes of companies
- Flexible. cost efficient and innovative

## MySQL

- Open-source
- Owned by Oracle
- Scalable buffer pool to pull cache
- Limited functionality regarding temporary tables to deal with CDmplex prDcesses
- Organizes indexes into clusters and tables (not very flexible search)
- BeiDngs to the Oracle Ecosystem (very large community)
- Targeted tD all sizes of CDmpanJes
- Flexible, co5t efficient and innovative