Database Management Systems

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Do an internet search and find the most used DBMS (at least 15), then fill the following table:

| BDMS name | Cassandra |
|-------------------------------------|---|
| Owner | Apache Software Foundation |
| Supported Models | NoSQL |
| Who is using it (min 3) | Constant Contact, CERN, Comcast, eBay, GitHub, GodDaddy, Hulu, Instagram, Netflix, Reddit, The Weather Channel |
| Availability tools and how it works | Automatically replicated to multiple nodes, replication across multiple clusters also |
| Data partitioning and how it works | Partitions all data across all nodes in a cluster, each node is responsible for part of the overall database. it also supports many clusters. |
| On-Premise, on- cloud or hybrid | hybrid |
| Data manipulation language | CQL (Casa Query Language) |
| Data Storage System | First writes on memory per-ColumnFamily structure called a Memtable. |
| Other Interesting Features | It has it's own query language, |

| BDMS name | MySQL |
|-------------------------------------|--|
| Owner | Oracle |
| Supported Models | SQL |
| Who is using it (min 3) | Youtube, Paypal, facebook, twitter, ebay, cisco, Linkedin, Uber, Netflix, Github, Walmart |
| Availability tools and how it works | Group Replication, (replicate members of a cluster) |
| Data partitioning and | Partition enabled since version 5.7 with a plugin |

| how it works | |
|------------------------------------|--|
| On-Premise, on- cloud or hybrid | Hybrid |
| Data manipulation language | SQL |
| Data Storage System | NDB-Storage engine Uses the same data structures across al platforms |
| Other Interesting Features | The most used on the world |

| BDMS name | Access |
|-------------------------------------|--|
| Owner | Microsoft |
| Supported Models | Relational |
| Who is using it (min 3) | Mainly small buisnesses |
| Availability tools and how it works | Backups |
| Data partitioning and how it works | Back-End data base may be separated from application objects usch as querires, forms, reports, macros etc. |
| On-Premise, on- cloud or hybrid | On-Premise |
| Data manipulation language | Access SQL |
| Data Storage System | Database tables, queries forms, reports, maaacros are stored in a single file |
| Other Interesting Features | Easy to use for end users, Microsoft Access does not implement data base triggers, storede procedures |

| BDMS name | PostrgreSQL |
|-----------|-------------|
|-----------|-------------|

| Owner | PostgreSQL Global Development Group |
|-------------------------------------|---|
| Supported Models | Object-Relational |
| Who is using it (min 3) | The Washington Post, Apple, Fujitsu, RedHat, Cisco, |
| Availability tools and how it works | Easily distributed across many nodes, it has built in synchronous replication |
| Data partitioning and how it works | Space Partitioned GST |
| On-Premise, on- cloud or hybrid | Hybrid |
| Data manipulation language | SQL, PostgreSQL, C |
| Data Storage System | Referential integrity constraints, Binary and textual large-object storage |
| Other Interesting Features | Default DB in MacOS servers |

| BDMS name | Microsoft SQL Server |
|-------------------------------------|---|
| Owner | Microsoft |
| Supported Models | SQL |
| Who is using it (min 3) | StackOverflow, Pinterest |
| Availability tools and how it works | SQL Server Replication Services, chenges are sent by a "publisher" and received by a "suscriber" |
| Data partitioning and how it works | Partitioning by tables |
| On-Premise, on- cloud or hybrid | Premise, On cloud with Azure |
| Data manipulation language | T-SQL |
| Data Storage System | A page is the basic unit of I/O. Physical storage of a table its rows are divided into partitions, rows are stored in B-trees or heaps. |

| Other Interesting Features | Widely used in buisnesses |
|----------------------------|---------------------------|
|----------------------------|---------------------------|

| BDMS name | MongoDB |
|-------------------------------------|--|
| Owner | MongoDB Inc |
| Supported Models | NoSQL |
| Who is using it (min 3) | Expedia, Forbes, Bosch, MetLife |
| Availability tools and how it works | Replica Sets, Election process when a master fails |
| Data partitioning and how it works | Sharding, data partitionedd in shards by a user-chosen shrad key. |
| On-Premise, on- cloud or hybrid | hybrid |
| Data manipulation language | MongoBD Query Language |
| Data Storage System | Grid File Sysyem, it divides files into parts and store them as individual documents |
| Other Interesting Features | Most important NoSQL dbms |

| BDMS name | Oracle |
|-------------------------------------|----------------------------------|
| Owner | Oracle Corporation |
| Supported Models | Multi-Model database |
| Who is using it (min 3) | Varsity Vivo, i-Emori, WPS, Evry |
| Availability tools and how it works | All of them, nodes |
| Data partitioning and how it works | Master slave |

| On-Premise, on- cloud or hybrid | Hybrid |
|------------------------------------|---|
| Data manipulation language | PL/SQL |
| Data Storage System | Stores data logically in tablespaces and physcally in datafiles |
| Other Interesting Features | Generates the more revenue of all DBMs |

| BDMS name | DB2 |
|-------------------------------------|--|
| Owner | IBM |
| Supported Models | SQL |
| Who is using it (min 3) | IBM, RocketOn, Vantiv, Fifth Third Bancorp |
| Availability tools and how it works | Able to have many nodes and split data |
| Data partitioning and how it works | By shards |
| On-Premise, on- cloud or hybrid | Hybrid |
| Data manipulation language | SQL_PL, XQuery |
| Data Storage System | Data files are written in data blocks |
| Other Interesting Features | Top 3 most used |

| BDMS name | MariaDB |
|------------------|---------------------|
| Owner | MariaDB Corporation |
| Supported Models | Relational |

| Who is using it (min 3) | Mozilla, Wikimedia Foundation, Alibaba Cloud, Booking.com |
|-------------------------------------|---|
| Availability tools and how it works | Very similar to MySQL |
| Data partitioning and how it works | Very similar to MySQL |
| On-Premise, on- cloud or hybrid | Hybrid |
| Data manipulation language | SQL |
| Data Storage System | B search trees |
| Other Interesting Features | Its an open source fork of MySQL |

| BDMS name | SQLite |
|-------------------------------------|---|
| Owner | Open Source team of 3 developers |
| Supported Models | Relational |
| Who is using it (min 3) | Chrome, Opera, Safari, Firefox, Evernote, Skype, Android |
| Availability tools and how it works | Embedded into the program |
| Data partitioning and how it works | All files, tables, indices are stored in a single file |
| On-Premise, on- cloud or hybrid | Premise |
| Data manipulation language | SQL |
| Data Storage System | Single file |
| Other Interesting Features | it's not client server, it is embedded into the end program, it is very lightweight |

| BDMS name | CUBRID |
|-------------------------------------|--|
| Owner | Naver Search Soultions |
| Supported Models | Relational |
| Who is using it (min 3) | Arnia, Line, Naver, Cafe24 |
| Availability tools and how it works | Load Balancing, fault tolerance and continuous service through its shared-nothing clustering: 1:N master slave |
| Data partitioning and how it works | Database Sharding by a special broker called CUBRID SHARD. |
| On-Premise, on- cloud or hybrid | Hybrid |
| Data manipulation language | SQL |
| Data Storage System | B+- tree indexes |
| Other Interesting Features | Stored procedures only through java |