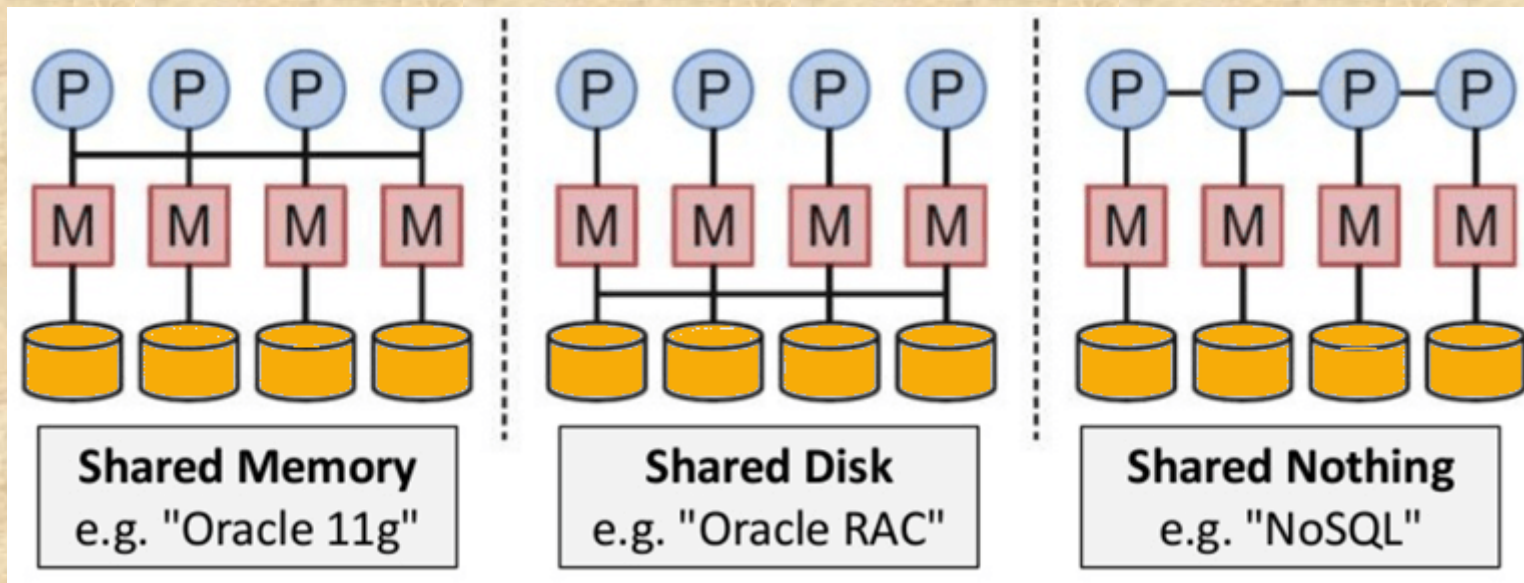




mongoDB

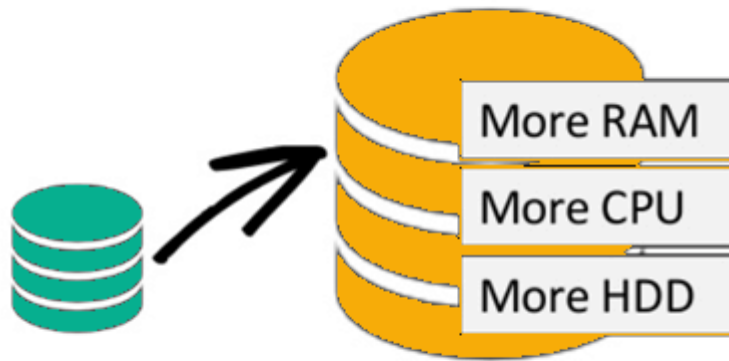
Storage Architecture of mongoDB

- Replication
- *Sharding* (partitioning)

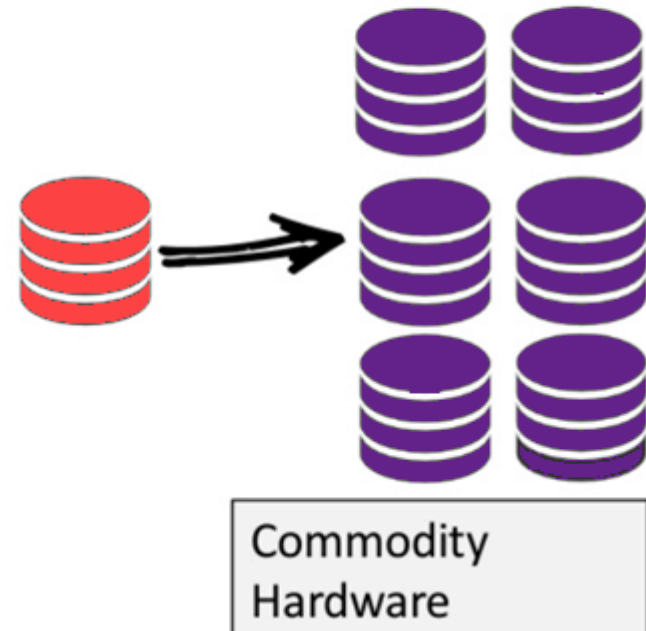


Scalability

Scale-Up (*vertical scaling*):



Scale-Out (*horizontal scaling*):



Why mongoDB

- exceptional scalability
- It makes it easy to fetch the data and provides continuous and automatic integration.
- No downtime while the application is being scaled
- Performs in-memory processing
- Text search
- Graph processing
- Global replication
- Economical

What is MongoDB Used For and when Should Use it

- used in a wide variety of ways to support applications in IoT, Gaming, Logistics, Banking, e-Commerce, and Content Management.
- Integrating large amounts of diverse data: If you are bringing together tens or hundreds of data sources, the flexibility and power of the document model can create a unified single view in ways that other databases cannot. MongoDB has succeeded in bringing such projects to life when approaches using other databases failed.

Usage

- **Describing complex data structures that evolve:** Document databases allow embedding of documents to describe nested structures and easily tolerate variations in data in generations of documents. Specialized data formats like geospatial are efficiently supported. This results in a repository that is resilient and doesn't break or need to be redesigned every time something changes

Usage ...

- **Supporting hybrid and multi-cloud applications:** MongoDB can be deployed and run on a desktop, a huge cluster of computers in a data center, or in a public cloud, either as installed software or through MongoDB Atlas, a database as a service product. If you have applications that need to run wherever they make sense, MongoDB supports any configuration now and in the future.

Usage ...

- **Supporting agile development and collaboration:** Document databases put developers in charge of the data. Data becomes like code that is friendly to developers. This is far different from making developers use a strange system that requires a specialist. Document databases also allow evolution of the structure of the data as needs are better understood. Collaboration and governance can take place by allowing one team to control one part of a document and another team to control another part.