

### **AWS Databases**







# Today's Takeaways

- Introduction to Database
- Amazon RDS
- MySQL Workbench









#### What is Database?







Type of Database?

Relational/SQL

Non-Relational/NoSQL

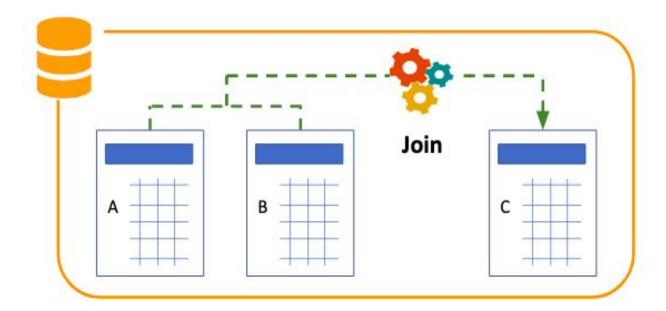


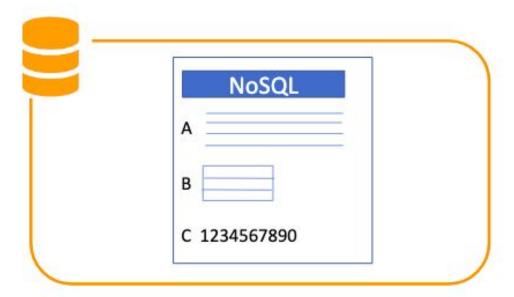


#### Type of Database?

Relational/SQL

Non-Relational/NoSQL







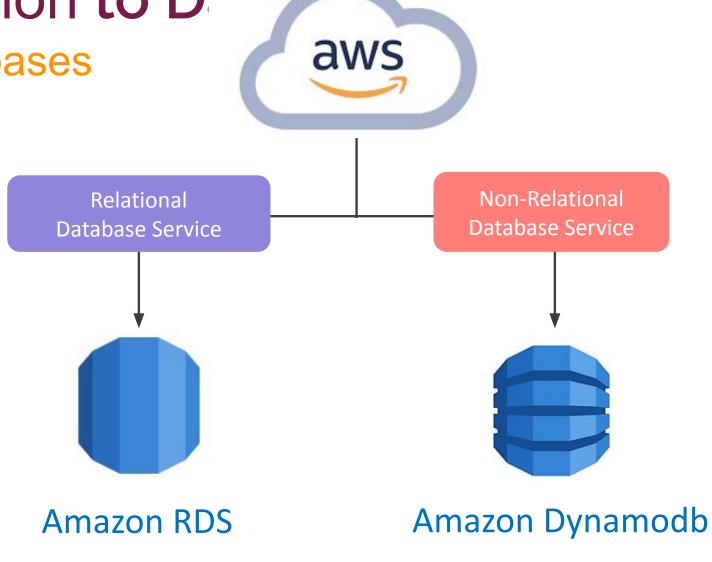
Type of Database?



#### Introduction to D



**AWS Databases** 







SQL vs. NoSQL?

SQL	NoSQL
Relational	Non-Relational
Table-based	Document-based, key-value pairs, graph databases or wide-column stores
Predefined Schema	Dynamic Schema
Uses SQL	As the name suggest, it doesn't use SQL
Used for complex queries	Used for simple queries
Available for <b>Join</b> function	Not available for <b>Join</b> function



# 2 Amazon RDS



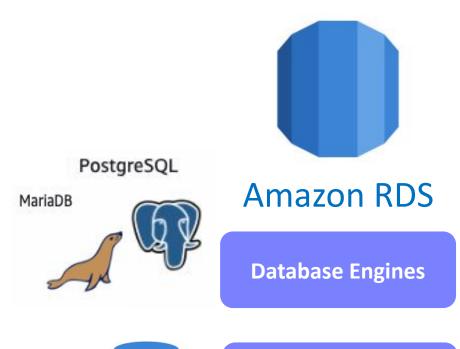


#### What is RDS?





#### **Basic Components**







**DB** Instance



**Storage Disk** 



EC2

AMI



Instance Type



Storage Disk/ Root Volume



#### **Database Engines**







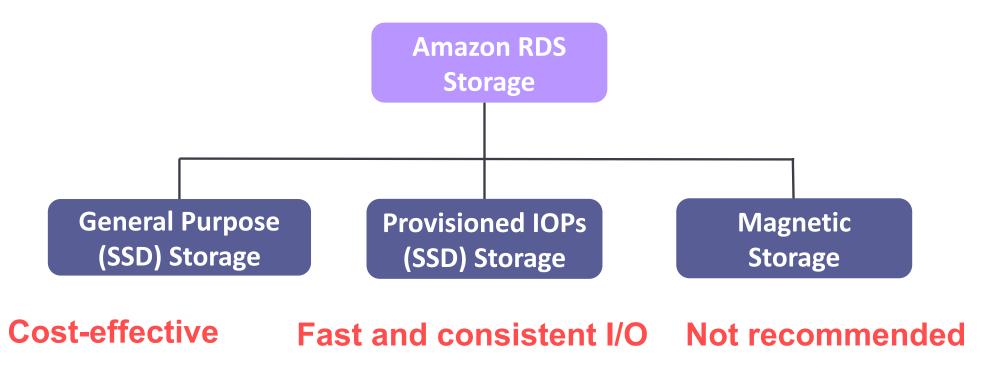
#### **Database Instance**

**RDS Pricing Purpose** On Demand Burstable Memory Reserved General Optimized Instance Instance Purpose





#### Instance Storage

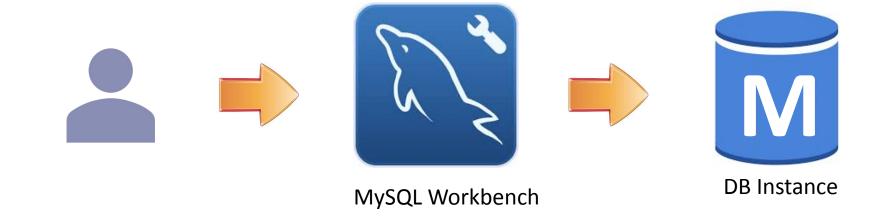


There is an important factor in the databases as much as CPU and RAM power, which is the value of IOPs of storage





#### MySQL Workbench

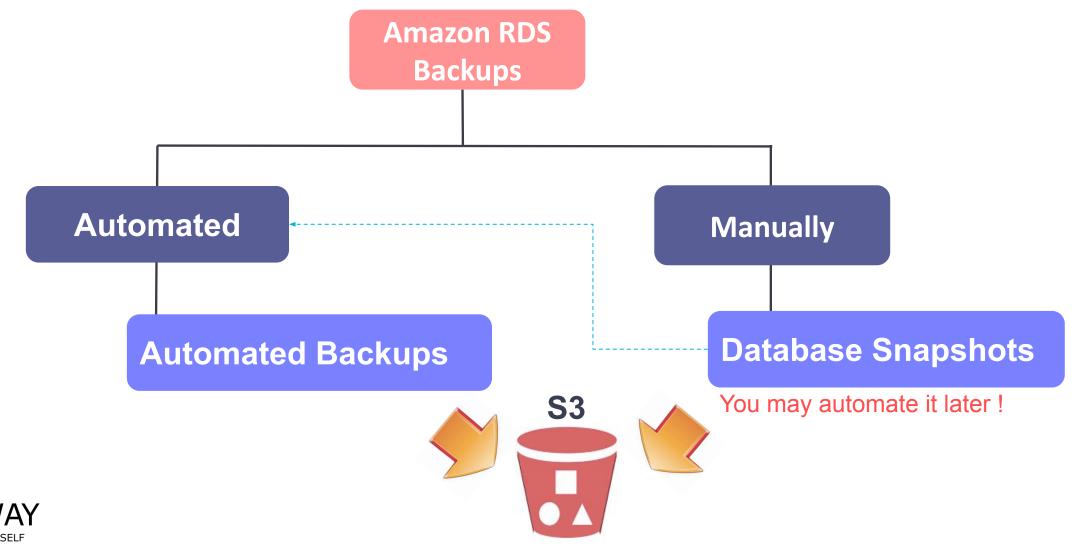


MySQL Workbench = Graphical tool for working with MySQL databases.





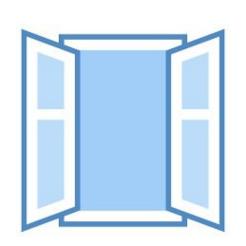
#### **DB Instance Backups**

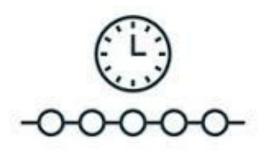




#### **DB Instance Automated Backups**











5 minutes



#### **DB** Instance Snapshot

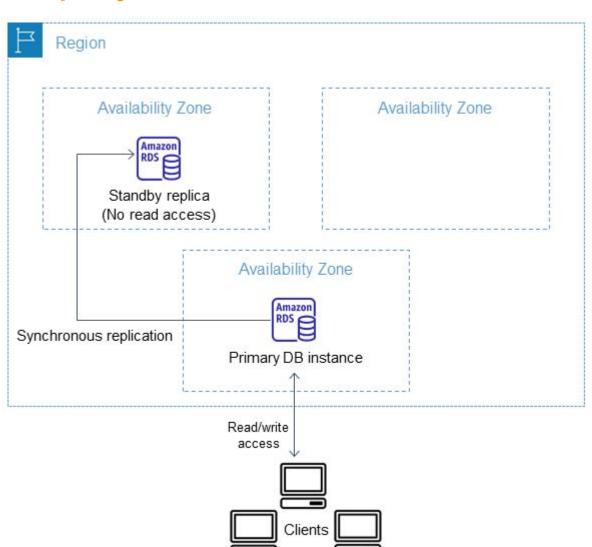






#### RDS Multi-AZ Deployment

Multi-AZ DB instance deployments

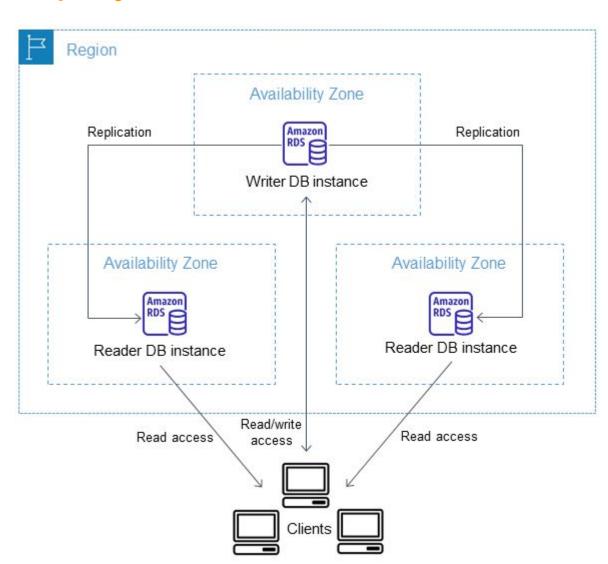




#### RDS Multi-AZ Deployment

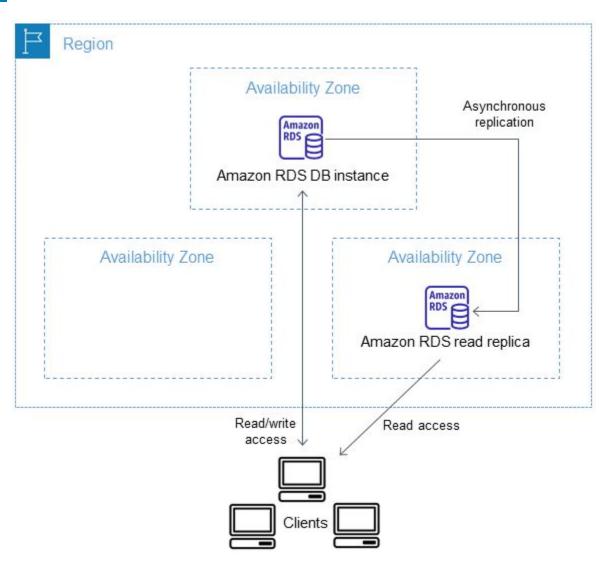
Multi-AZ DB <u>cluster</u> deployments

Only for PostgreSQL and MySQL





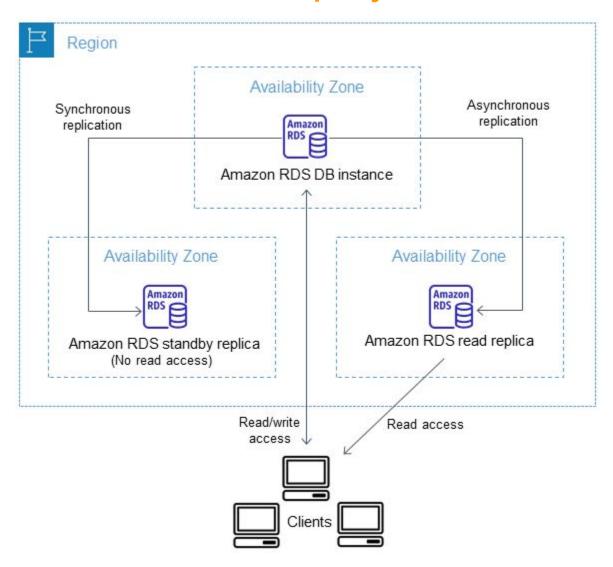
#### Read Replicas





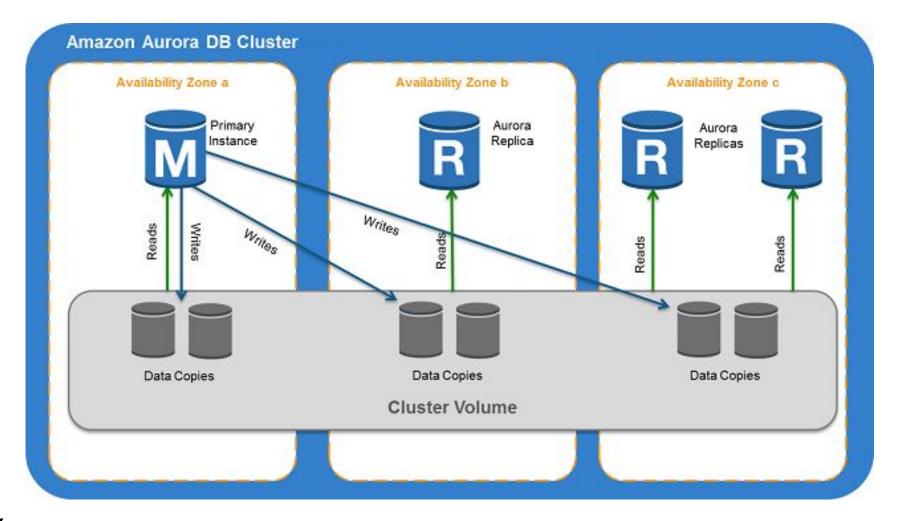


#### Read Replicas w/ Multi AZ Deployment





#### Aurora Multi-Master clusters





### Let's get our hands dirty!

- Creating a RDS Instance
- Connecting DB via MySQL Workbench





# THANKS! ?

Any questions?



