



# AWS Databases





# Today's Takeaways

- ▶ Introduction to Database
- ▶ Amazon RDS
- ▶ MySQL Workbench



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# Introduction to Database

# Introduction to Database

## What is Database?





# Introduction to Database

## Type of Database?

Relational/SQL

Non-Relational/NoSQL

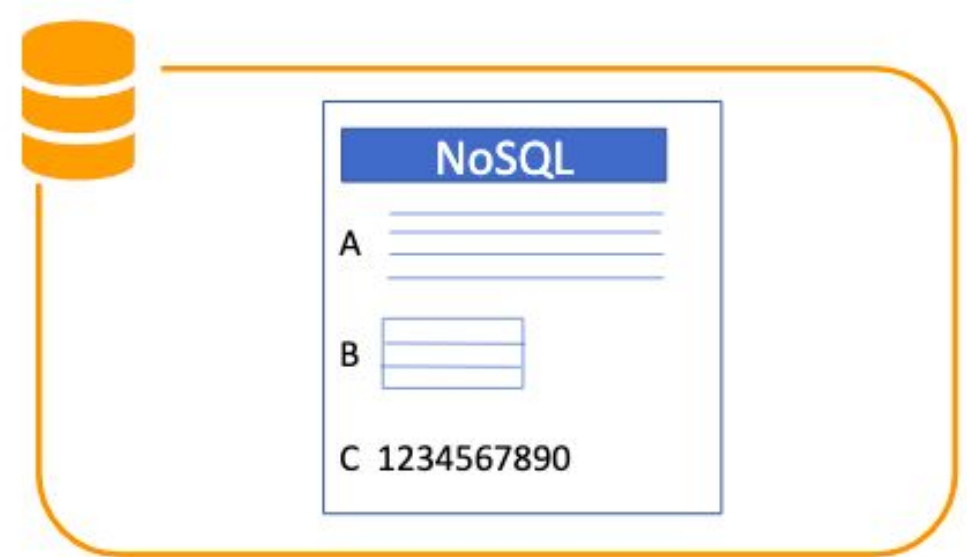
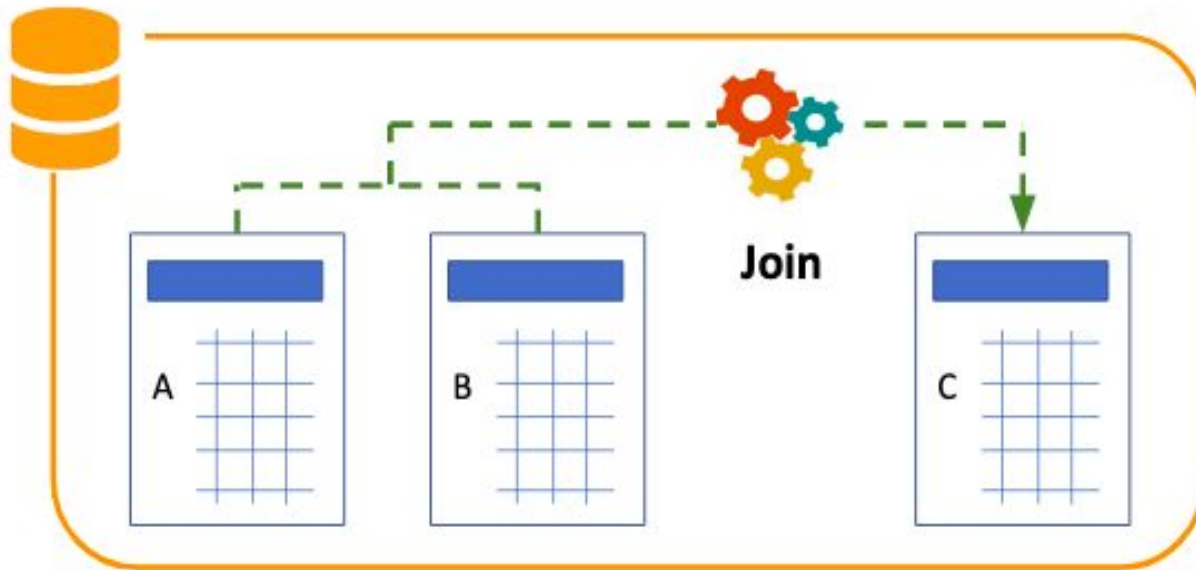


# Introduction to Database

## Type of Database?

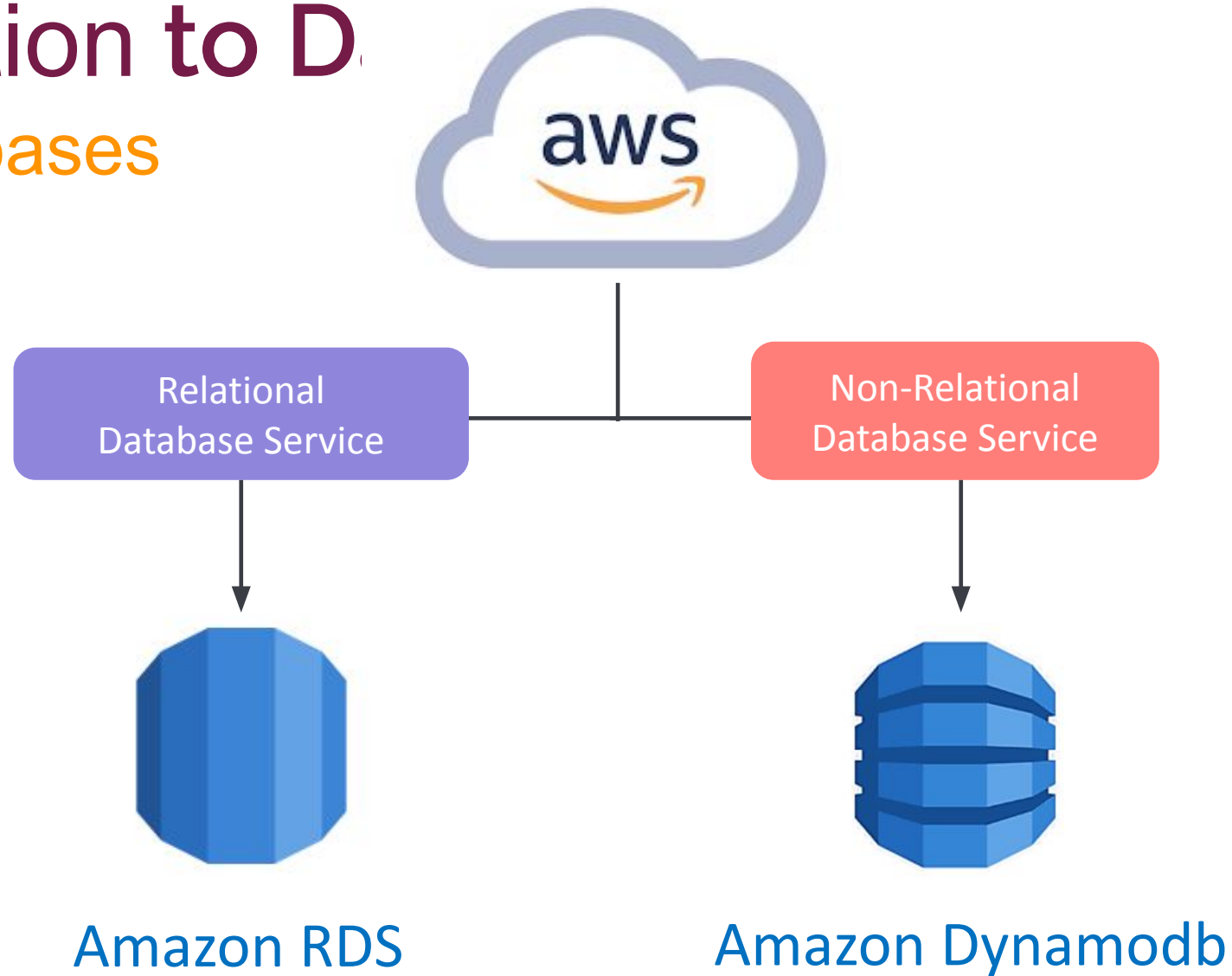
Relational/SQL

Non-Relational/NoSQL



# Introduction to D.

## AWS Databases





# Introduction to Database

## 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



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# Amazon RDS

# RDS

## What is RDS?



Amazon RDS

# RDS

## Basic Components



Amazon RDS

PostgreSQL

MariaDB



Database Engines

db.t2.micro



DB Instance



Storage Disk



EC2

AMI



Red Hat



Amazon Linux



Instance Type

t2.micro

Storage Disk/  
Root Volume





## Database Engines

☐ Aurora (MySQL Compatible)



☐ Aurora (PostgreSQL Compatible)



☒ MySQL



☐ MariaDB



☐ PostgreSQL



☐ Oracle

ORACLE®

☐ Microsoft SQL Server

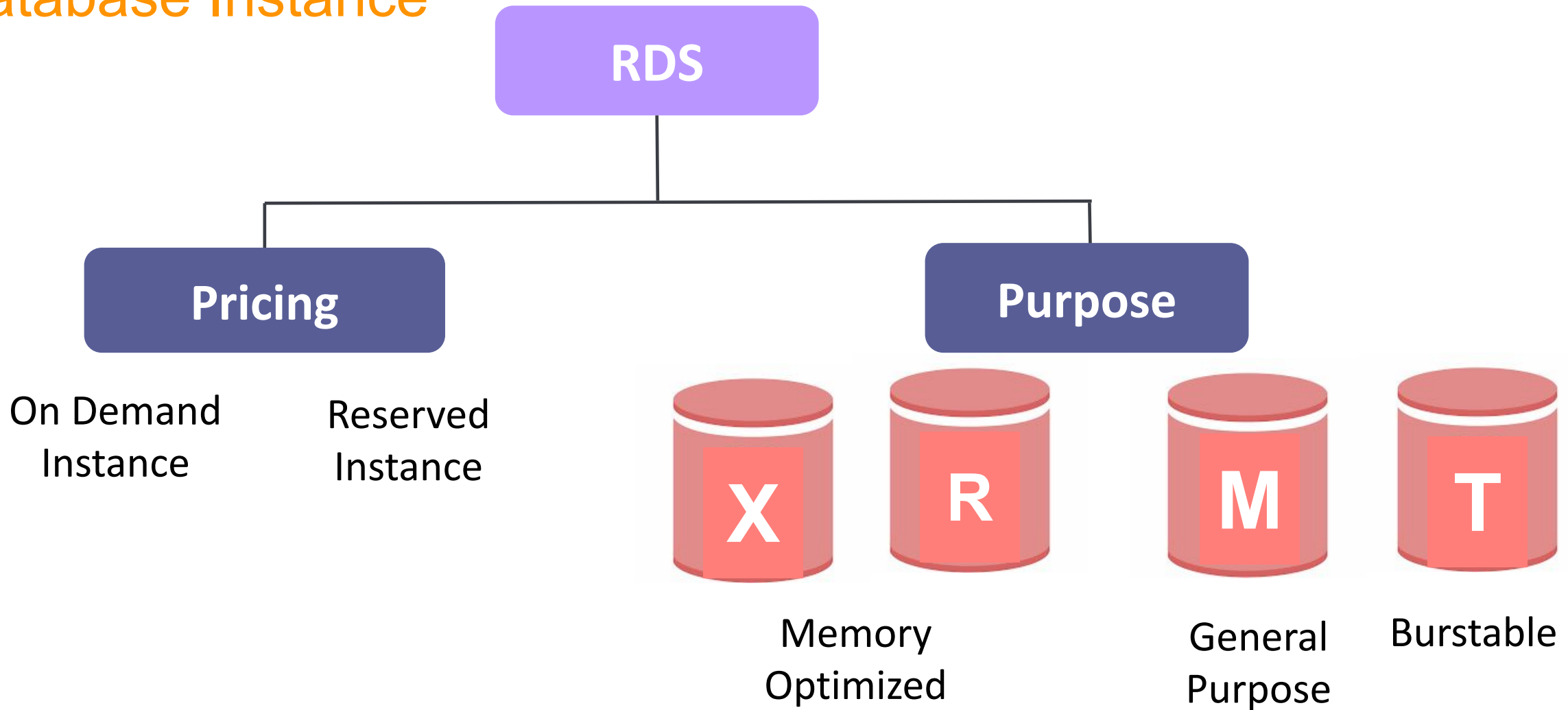


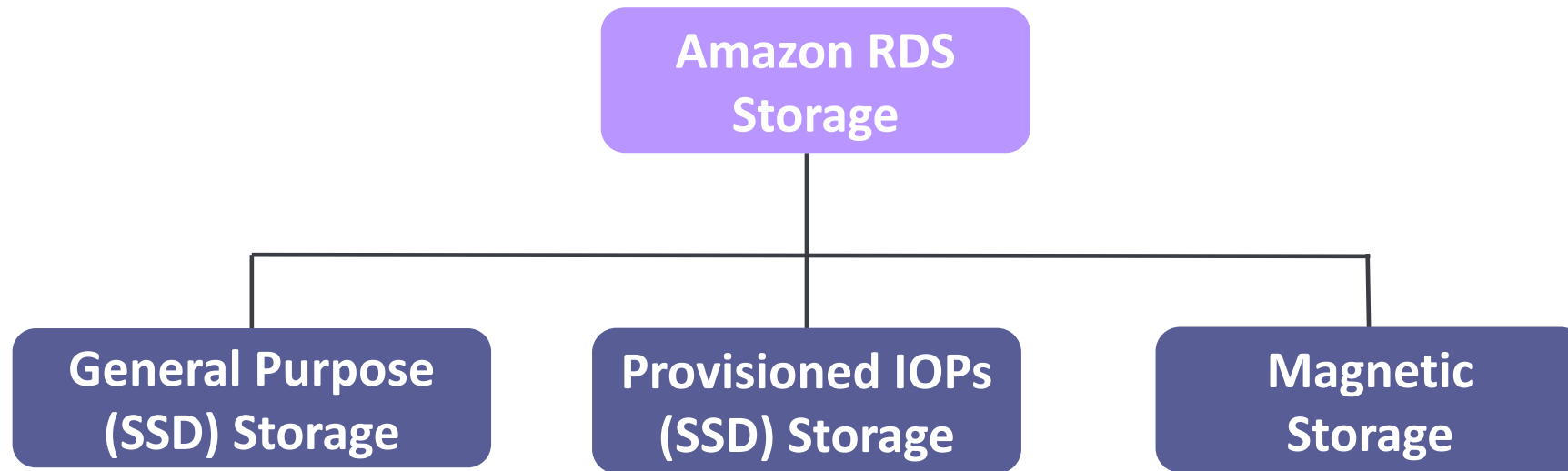
☐ IBM Db2

IBM **Db2**

# RDS

## Database Instance





**Cost-effective**

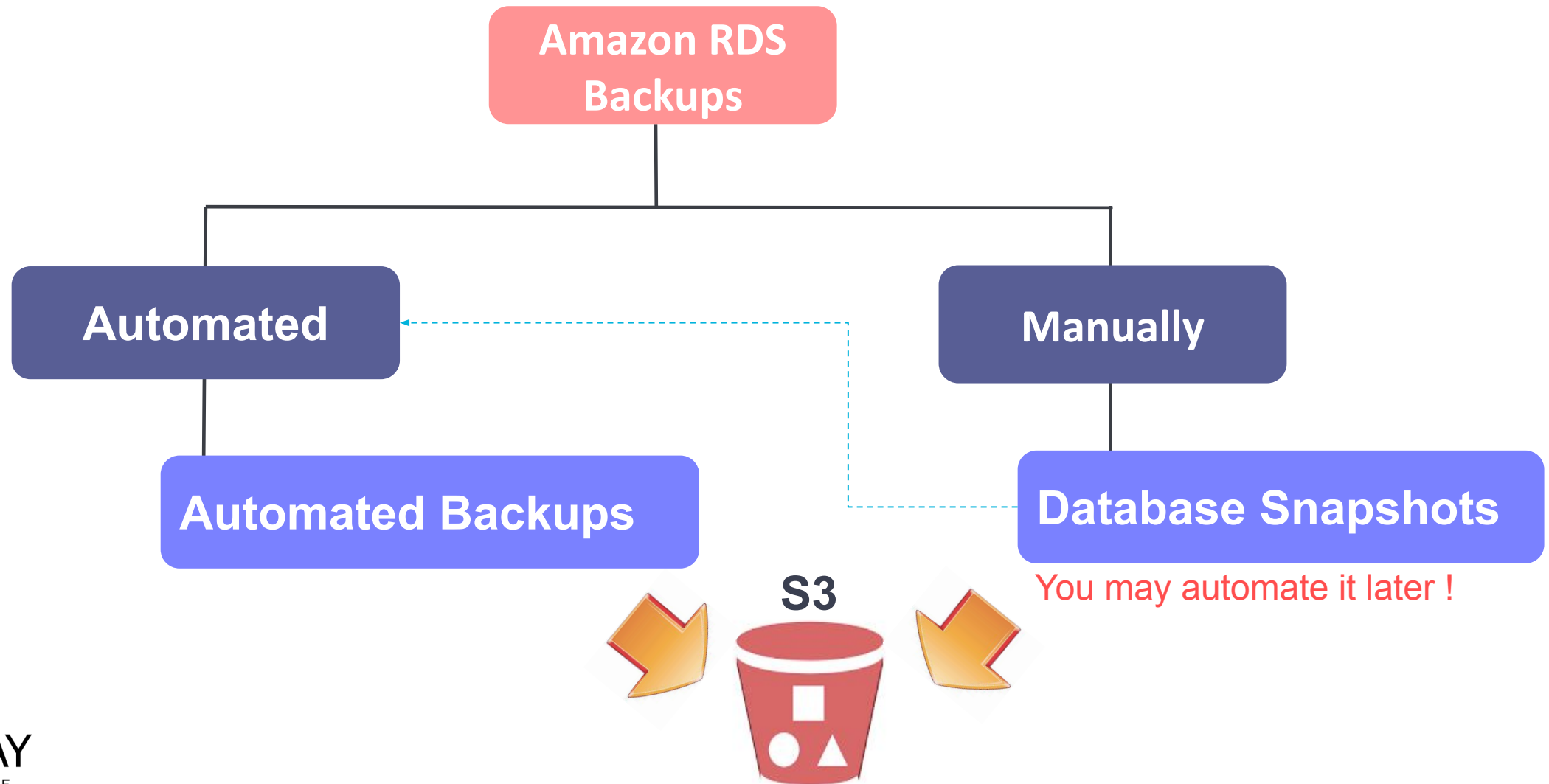
**Fast and consistent I/O**

**Not recommended**

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



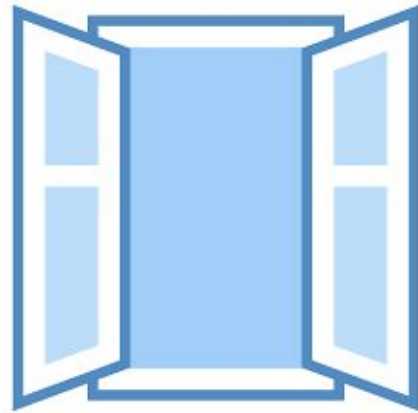
MySQL Workbench = Graphical tool for working with MySQL databases.







## DB Instance Automated Backups



35 days



5 minutes



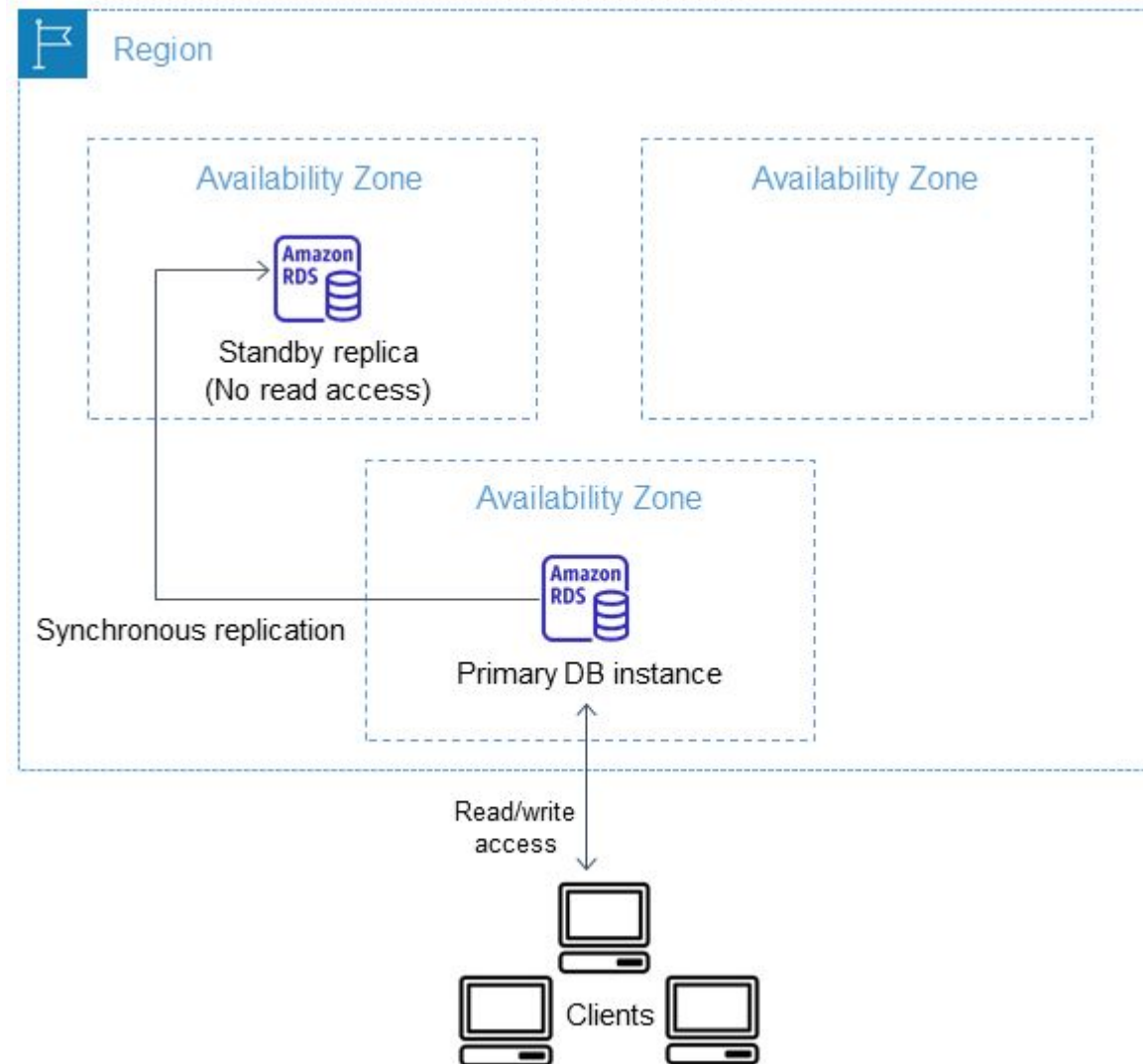
## DB Instance Snapshot



# RDS

## RDS Multi-AZ Deployment

Multi-AZ DB  
instance  
deployments

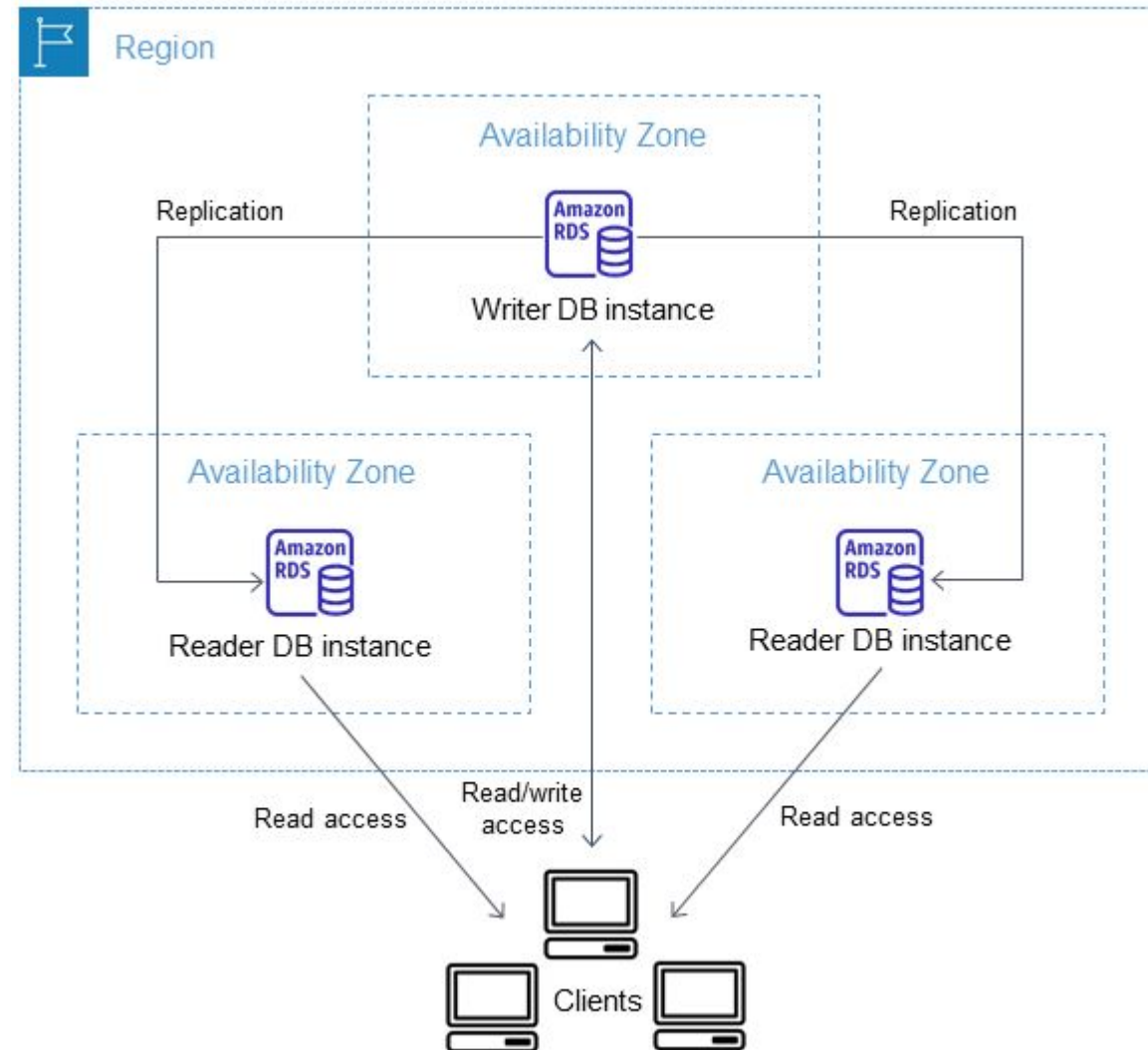


# RDS

## RDS Multi-AZ Deployment

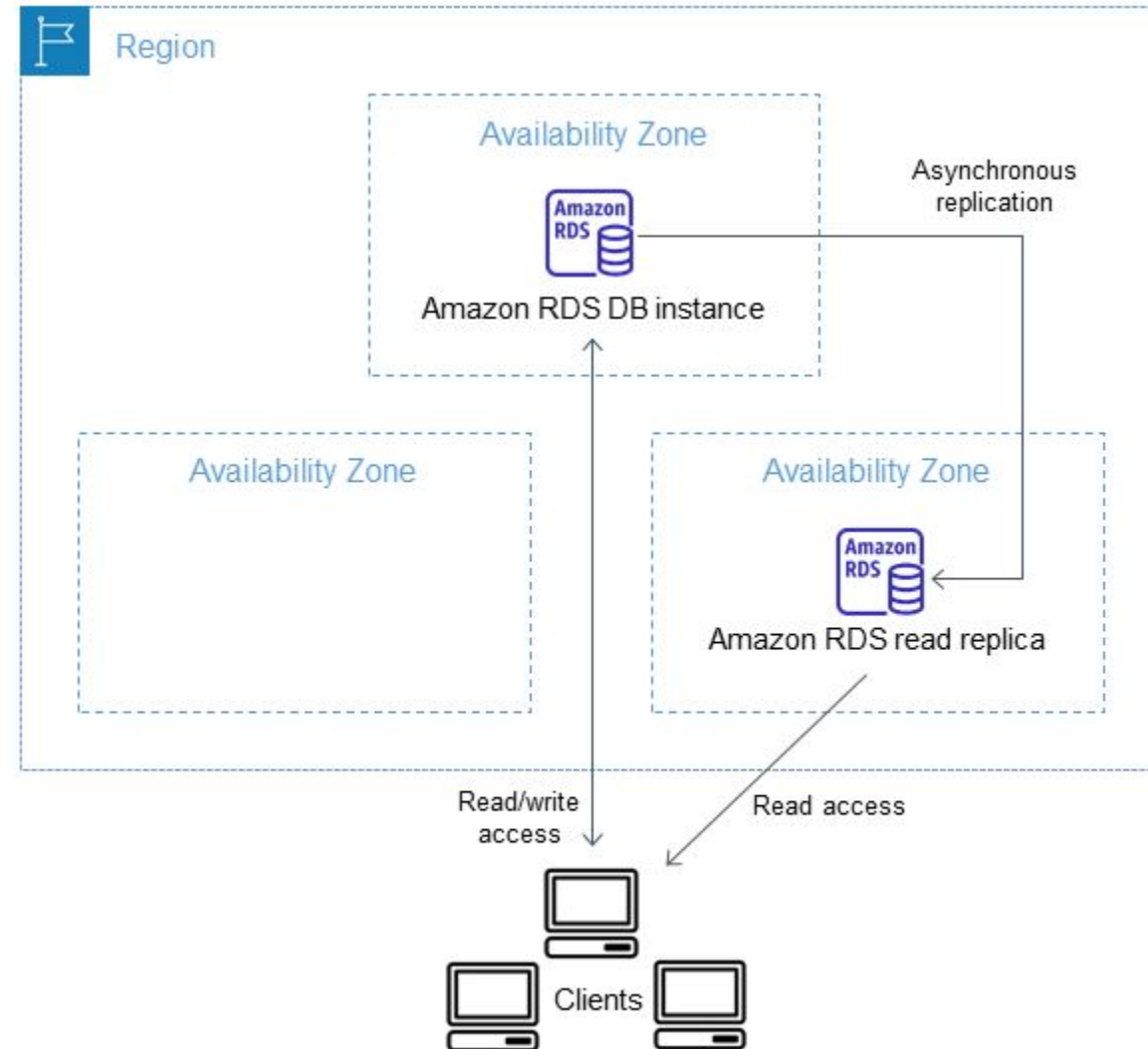
Multi-AZ DB cluster  
deployments

Only for  
PostgreSQL and MySQL



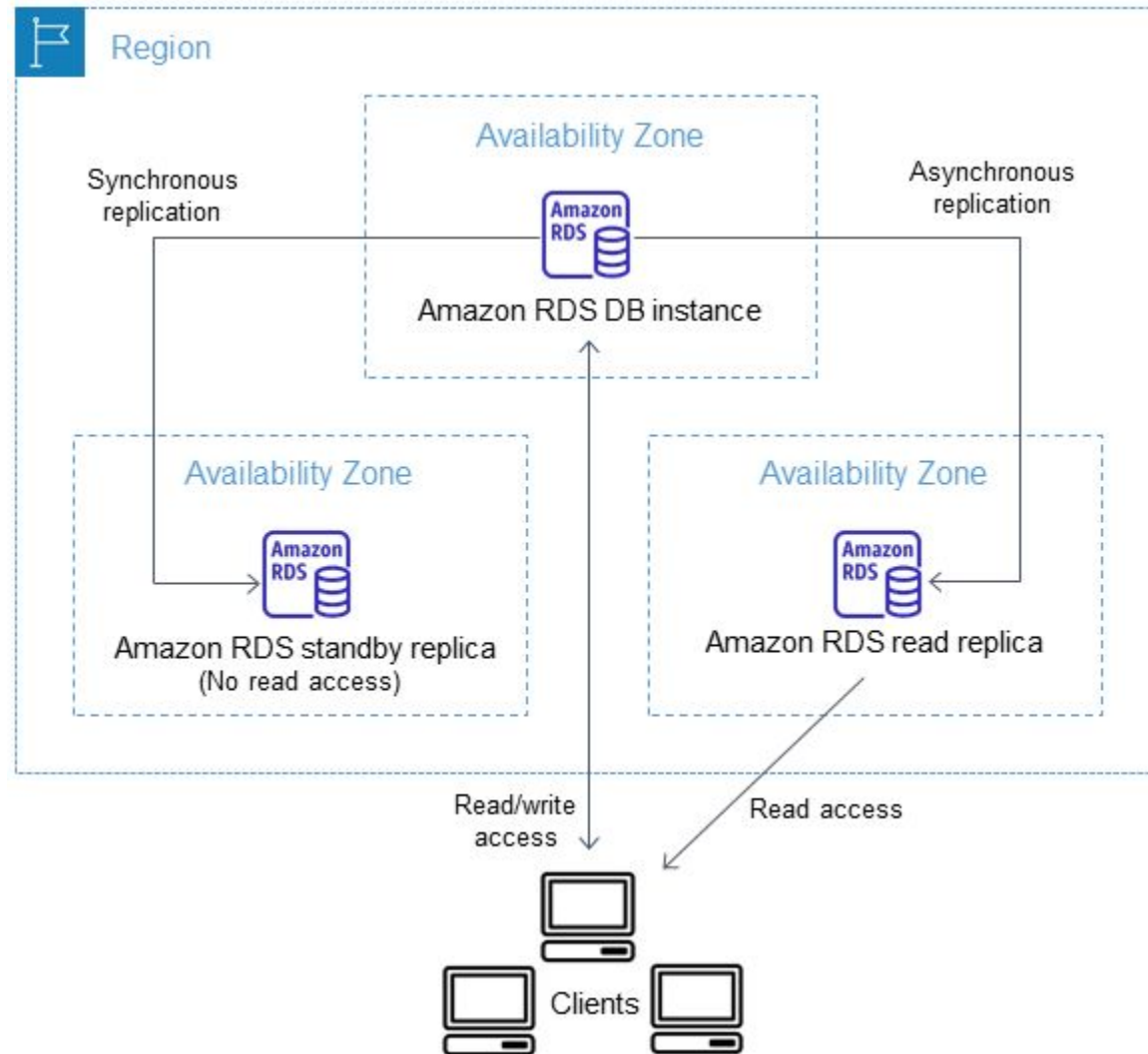
# RDS

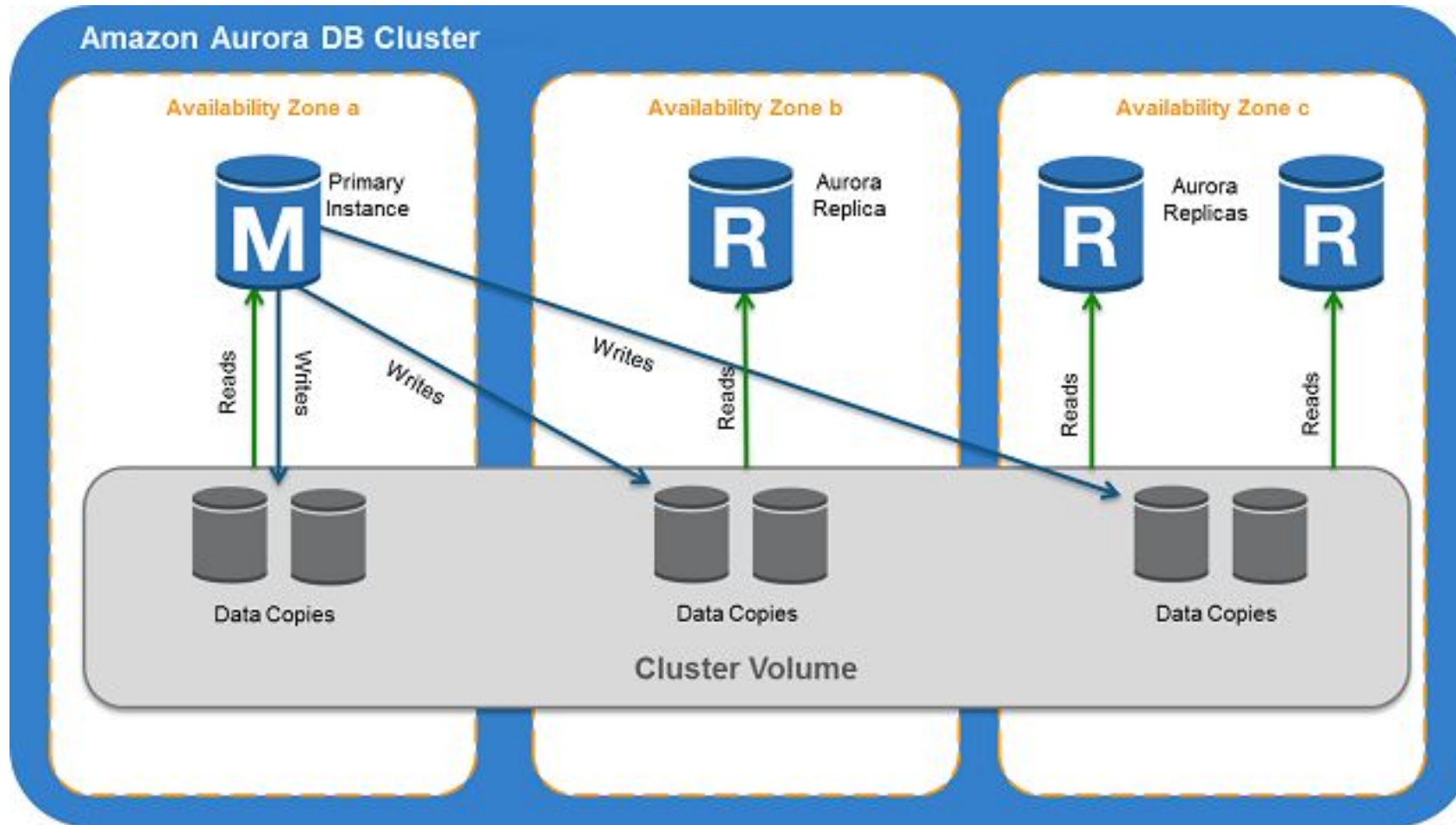
## Read Replicas



# RDS

## Read Replicas w/ Multi AZ Deployment





## Let's get our hands dirty!

- Creating a RDS Instance
- Connecting DB via MySQL Workbench





# THANKS!

## Any questions?

