



BATCH : BATCH 107

LESSON : AWS

DATE : 27.02.2023

SUBJECT : AWS RDS



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AWS RDS





What is AWS Database Services ?

RDS

- Manages relational database
- Handles structured & tabular data



Dynamo

- NoSQL database
- Document and key-value store
- Handles unstructured data



ElastiCache

- In-Memory Cache
- Improves the performance of any web application



Redshift

- Data Warehouse
- It is used for data analysis and reporting



Aurora

- MySQL-compatible relational database with 5X performance



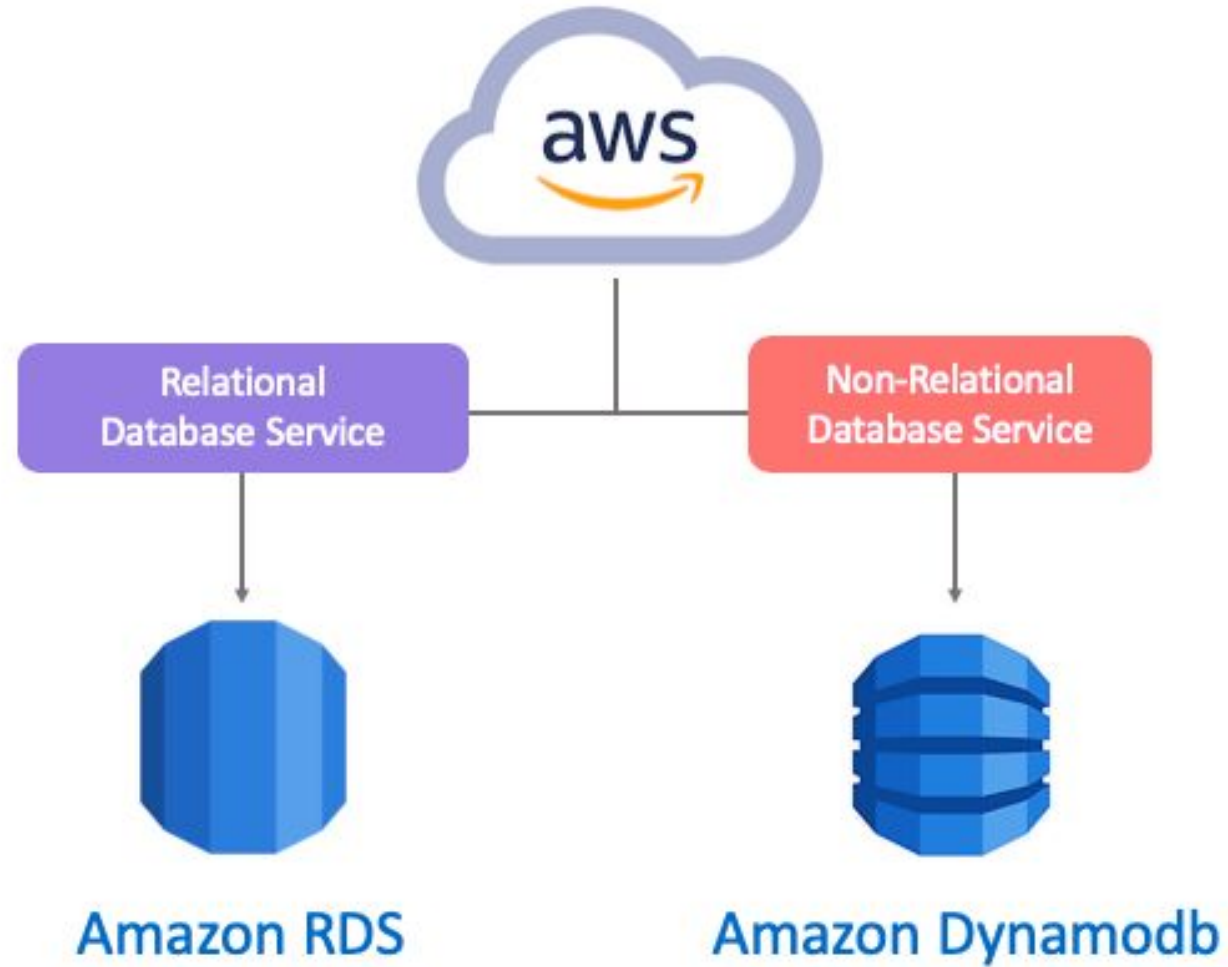


Self-managed Database vs. AWS-managed Database

Self-managed database	AWS-managed database
You have full responsibility for upgrades and backup	AWS provides upgrades, backup, and failover as a service
You have full responsibility for security	AWS provides high infrastructure security and certifications, and gives you tools to ensure DB security
Full control over parameters of server, OS, and database	Database is a managed appliance, so you can easily automate
Replication is expensive and complex and requires a lot of engineering	AWS provides failover as a packaged service



AWS Databases





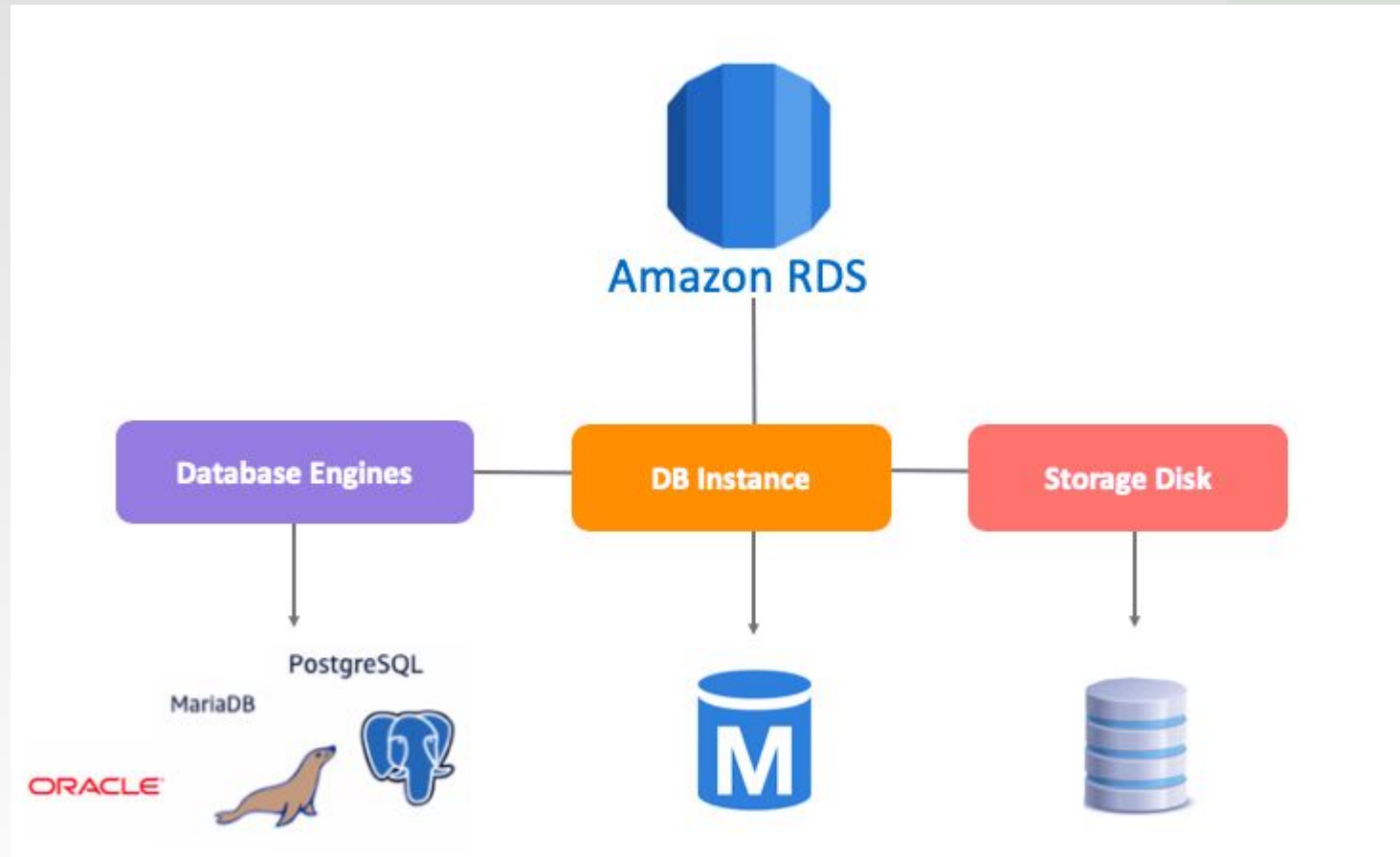
What is Amazon Relational Database (Amazon RDS)?

- ✓ **Relational databases** store data in a table form with rows and columns and use SQL query language to query the data. In these databases, columns represent attributes and rows represent records. Each field in the table represents a data value.
- ✓ **Amazon Relational Database Service (Amazon RDS)** makes it easy to spin up a database in the AWS cloud in just a few minutes. Amazon RDS is the most commonly used and a managed database service that automates all the time-consuming administration tasks such as provisioning, setup, patching, and backups.
- ✓ Amazon RDS provides six different relational database options:



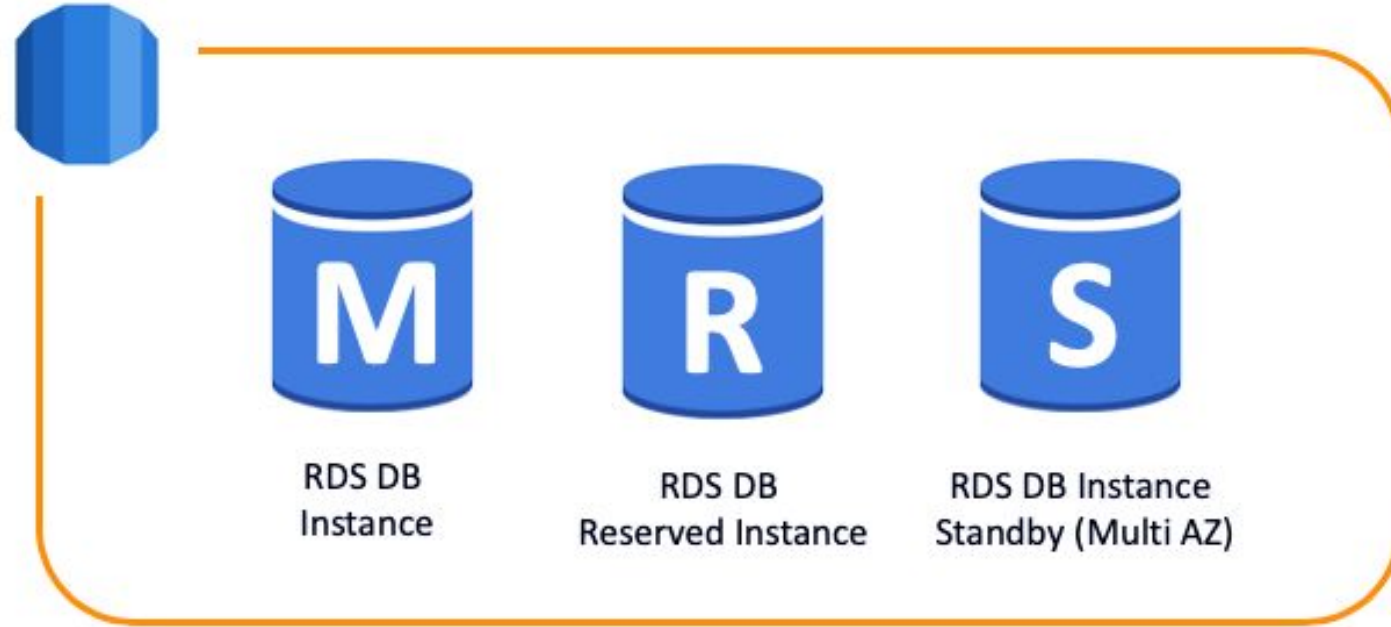


Components of Amazon RDS



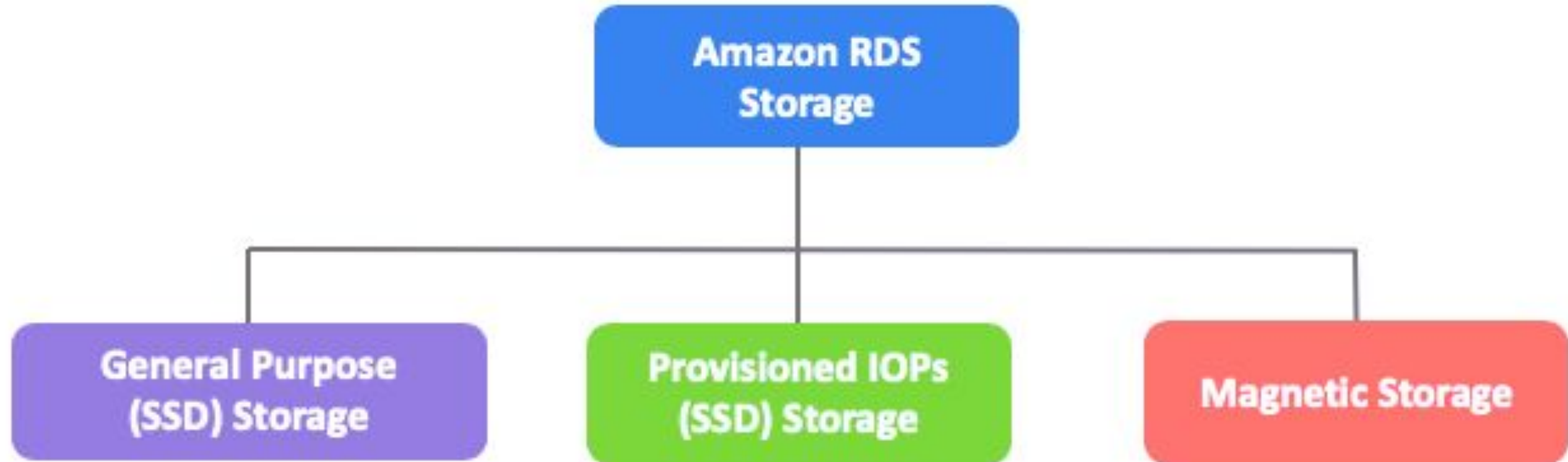


Relational Database Instance





Amazon RDS DB Instance Storage

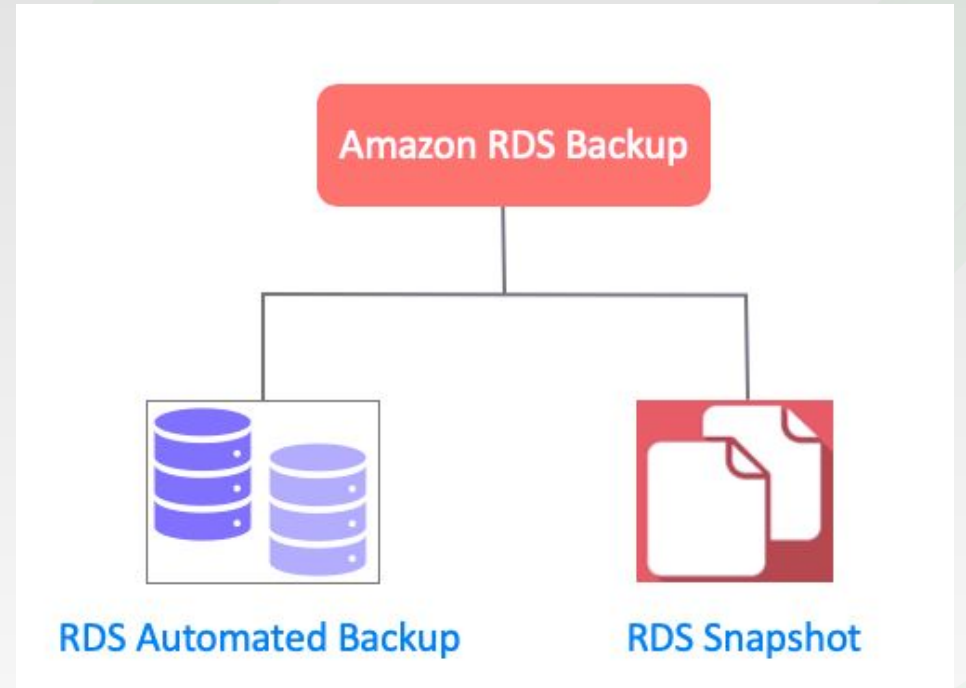




Automated Backups

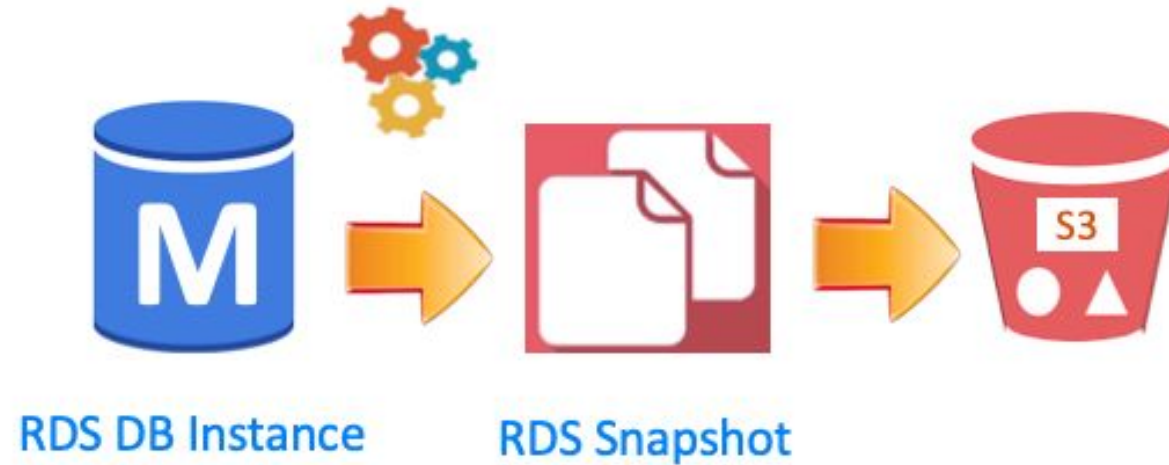
Amazon RDS provides two different methods for backing up your DB instance:

- ✓ Automated Backups
- ✓ Database Snapshots





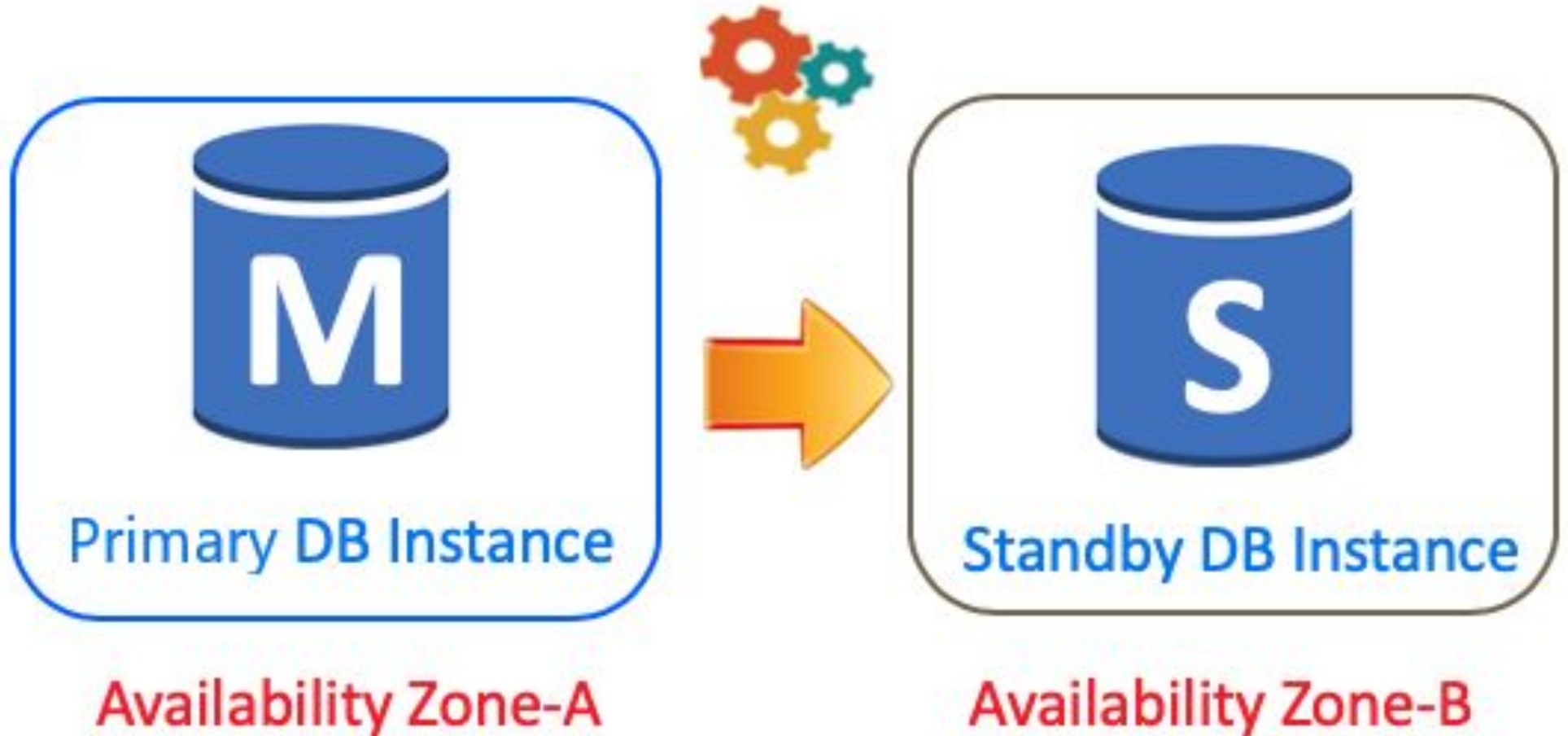
Database Snapshots



- ✓ Amazon RDS supports manual backups as well as automated backups. Amazon RDS allows taking Snapshot of RDS DB instance at any time.

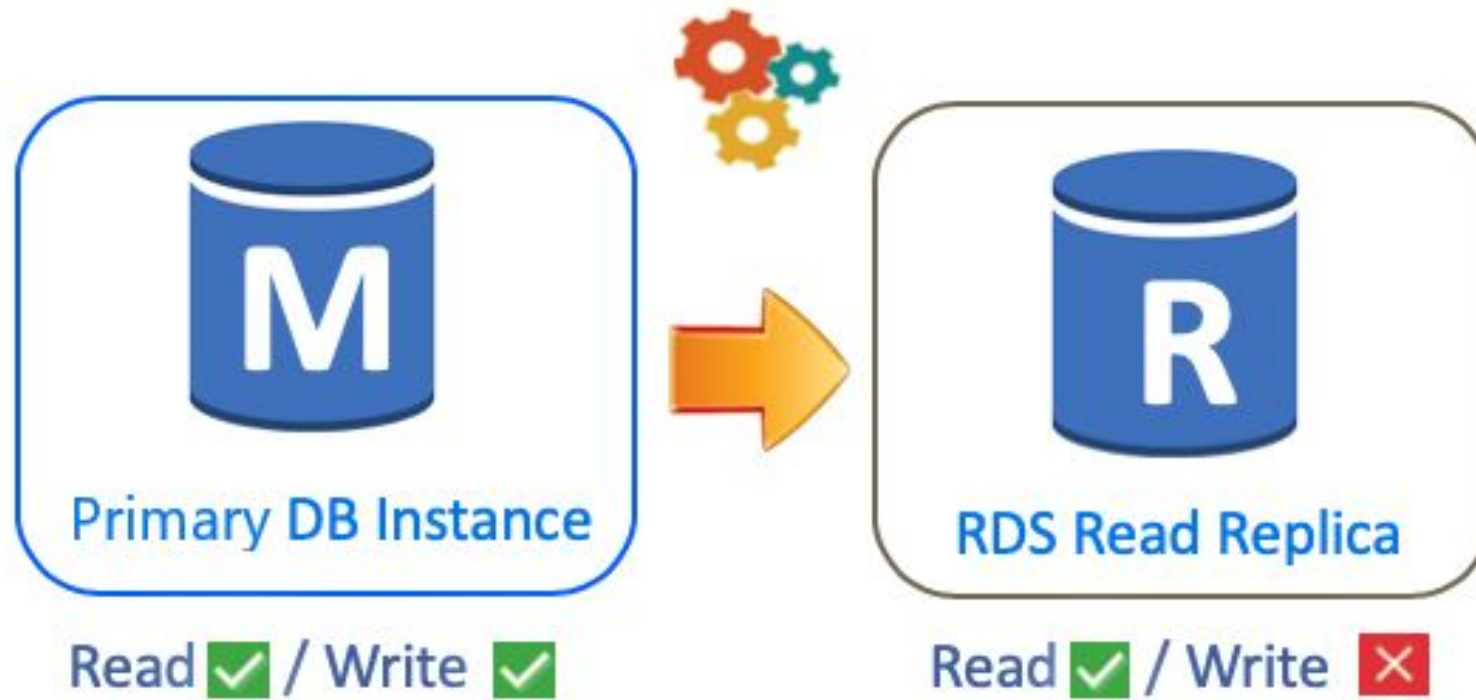


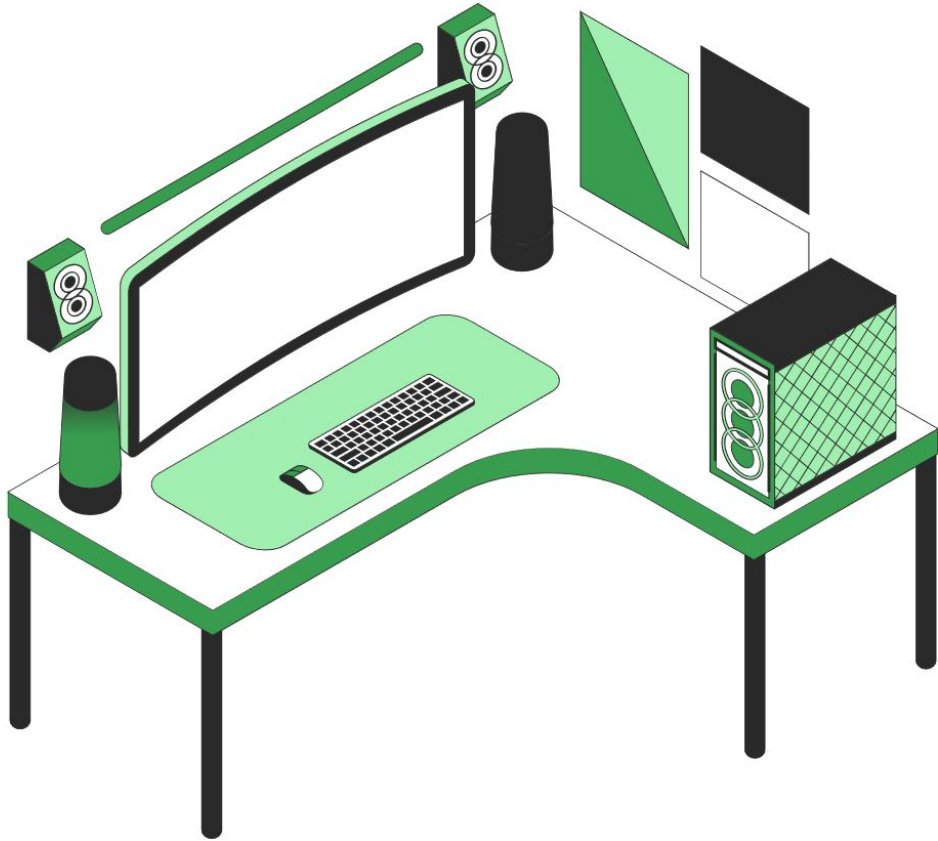
RDS Multi-AZ Deployment





Amazon Read Replicas





Do you have any questions?

Send it to us! We hope you learned something new.

