

Amazon RDS:

What is RDS?

- RDS = **R**elational **D**atabase **S**ervice
- Managed Relational Database Service in AWS
 - Easier to set up, operate and scale your database
 - Leverage the flexibility of the cloud



Six database engines are supported:

- Commercial Engines
 - Oracle
 - Microsoft SQL Server
- Open Source Engines
 - MariaDB
 - PostgreSQL
 - MySQL

ORACLE



- Aim of RDS is to Lower TCO (**T**otal **C**ost of **O**wnership)
 - Offload routine database tasks such as
 - Provisioning
 - Patching
 - Backup
 - Recovery
 - Failure Detection
 - Repair
 - Enables you to focus on your core business
 - Leverage the maturity of AWS operations



Self hosted

1. Provision the hardware
2. Configure and harden your operating system
3. Install, Setup Database and Clustering
4. Create your database
5. Load your data
6. Tune your queries
7. Design and Implement a backup strategy
8. Perform Patching
9. Perform Software and Hardware upgrades
10. Deal with failures

Managed by RDS

4. Create your database
5. Load your data
6. Tune your queries



• Options to configure RDS

- Database Engine
- License Model
- DB Engine Version
- Database Instance Class
- Multi-AZ Deployment
- Storage Type & Size
- Backups
- Monitoring
- Maintenance Window

Database Instance

Basic building block of Amazon RDS

An isolated database environment

Can contain multiple user-created databases

Database Engine Type

Type of Database you wish you run

MySQL, MariaDB, PostgreSQL, Oracle, SQL Server, and Aurora.

Database Instance Class

Similar to the EC2 Instance Type

Determines the CPU and Memory capacity

db.m4.large

Multi AZ

AZ stands for Availability Zone

AZ is an isolated distinct data centre

Multi AZ means hosted in two AZ for high availability

Read Replicas

A node which is part of a Database Instance

Handles only read queries

Reduces burden from Primary host

Secondary Host (or Standby)

The host / node within a Database Instance which is not actively handling write traffic for your application

Acts as a redundancy layer
(takes over in case of failover)

Aurora

MySQL and PostgreSQL compatible relational database

Natively built for AWS