

DATABASE-rds

AWS DATABASE

RDS----RELATIONAL DATABASE -----SQL
NON RELATIONAL DATABASE----NO SQL

RDS DATABASE ENGINE ---MY SQL . MS SQL , AMAZON AURORA , POSTGRE SQL , MARIADB , ORACLE

PATCHES / UPDATES AND SECURITY --MANAGE AWS

BACKUP WINDOWS TMEZONE

MULTI AZ ---FAILOVER , SAME REGION -REPLICA---SYNCHRONIZE---
PRIMARY AND STANDBY
DATABASE RETENSION PERIOD DEFAULT 7 DAYS

MANGE BY USER---USERNAME AND PASSWORD , STORAGE TYPE , SCHEMA , THROUGHPUT

BYOL AND LICENCE FROM AWS

RDSLIMIT----MAXIMUM 40DB INSTANCE
UNDER LICENSE INCLUDE 10 DB

STORAGE ---EBS

EC2 INSTANCE BUT ACCESS ONLY DB ENGINE NOT EC2

EBS----GENERAL PURPOSE , PROVISION IOPS (MORE THROUGHPUT), OLTP AND OLAP
20GB MIN 16TB MAX 100GB MIN 16TB MAX

TEMPLATES ---PRODUCTION , DEV/TEST , FREE TIER

BD INSTANCE -----STANDARD CLASS-----M SERIES
MEMORY OPTIMIZE-----R AND X SERIES
BURSTABLE CLOUD---T CLASS

WHEN WE CREATE DATABASE AT THAT TIME SELECT MULTI AZ OR STANDALONE

ALSO BACKUP OF STAND ALONE

SAME REGION ---DIFFERENT AZ NOT IN SAME AZ-----ONE STAND BY

STAND BY IS SELECT BY AWS

ONCE STAND BY CREATE WE CAN ONLY SEE NOT ACCESS AND NOT READ

IF PRIMARY FAIL THAT TIME STAND BY BECOME PRIMARY

FAILOVER REASON----IF DATABASE FAIL
INSTANCE FAIL
AZ FAIL
EBS STORAGE FAIL
OS PATCHING
MANUAL FAILOVER

TWO INSTANCE ---TWO DB ENGINE --TWO IP ADDRESS---PRIMARY AND STANDBY

WE PROVIDE CNAME --ENDPOINT----URL

CNAME NEVER CHANGE --IP CHANGE

USER-----APP-----DB
(URL) CNAME AZ AZ

MANUAL FAILOVER---- --REBOOT
OPTION ---REBOOT WITH FAILOVER
DB CHANGE --REBOOT TO TAKE EFFECT

---API HISTORY ---14 DAYS AND ALSO CLI
CONSOLE HAVE ONLY ONE DAYS HISTORY----EVENT

OS PATCHING , UPGRADE AND DB SCALING -----FIRST DONE ON STANDBY THAN APPLICATION CONNECT TO STANDBY BECOME
PRIMARY

SNAPSHOT AND BACKUP ALSO ON STAND BY

MAINTENANCE ----ON STANDBY

MANUALLY VERSION UPGRADE , DB MODIFY
MAINTENANCE WIDOWS--ONLY WHEN YOU VERSION UPGRADE
APPLY ON BOTH SIMULTANEOUS --CAN NOT ACCESS DATABASE IN MAINTENANCE WINDOWS

MAINTENACE WINDOWS SLA NOT COUNT

DATABASE-rds

BACKUP----AUTO OR MANUALLY
ENTIRE DB INSTANCE OR ONLY DB
SNAPSHOT
BACKUP----DIFFERENT AVAILIBLTY ZONE ---AUTO
BACKUP STORE ON **S3**
MULTIAZ----BACKUP FROM STANDBY
DTABASE ON ACTIVE STATE --NO AUTOMATIC BACKUP
BY DEFAULT BACKUP RETENSION PERIOD ---7 DAYS
NO CHARGE OF BACKUP --CHARGE OF USE STORAGE
DB INSTANCE DELETE --BACKUP ALSO DELETE
RETENSION PERIOD -----0 TO 35 DAYS
 0 DAYS NO BACKUP
ON AWS CONSOLE RETENSION PERIOD ---7 DAYS
VIA CLI OR API RETENSION PERIOD --1 DAYS
INCREASE UP TO 35 DAYS
AUTONATIC BACKUP----BEFORE 5 MIN AGO
MANUAL---RPO---RECOVERY POINT OBJECT ---(EXAMPLE 5 MIN AGO)
 RTO----RECOVERY TIME OBJECT---(HOW MUCH TIME)
AUTO BKP----RDS DELETE ---BKP DELETE AUTO
MANUAL BKP--RDS DELETE ---BKP NOT DELETE
MANUAL SNAPSHOT ---DIRECT SHARE
AUTOMATIC ----MAKE A COPY AND SHARE
SNAPSHOT --MANUAL ---DB RECREATE ---INITIAL DEFAULT SETTING
SNAPSHOT AVAILABLE ---CAN NOT APPLY ON DB WHICH ONE RUNNING
NEW INSTANCE USING SNAPSHOT---NEW END POINT --CHANGE AT CUSTOMER LEVEL

ENCRYPTION
WHEN WE CREATE DB AT THAT TIME WE ENCRYPT OR UN ENCRYPT
CAN NOT CHANGE UN ENCRYPT TO ENCRYPT
ENCRYPT DATABASE MIGRATE BUT UN ENCRYPT TO MIGRATE FIRST ENCRYPT
UNENCRYPT ---SNAPSHOT---WHEN YOU CREATE NEW SELECT ENCRYPT
ENCRYPT DATA AT REST
WHICH DATA ENCRYPT-----SNAPSHOT
 BACKUP---AUTO/ MANUAL
 EBS STORAGE
 READ REPLICA CREATE FOR SNAPSHOT
BILLING-----NO UPFRONT
 INSTANCE PER HOUR
 STORAGE
 INTERNAL DATA INCOMING / OUTGOING
 BACKUP STORAGE (S3)
 RETENSION PERIOD
 MULTI AZ--DOUBLE BILL NO REPLICATION CHARGE ONLY USE STORAGE

PRACTICAL

rds---database---create---mysql---templates (prod/dev,test/free)---DB identifier---username and password---db instance type (standard,memory,burst)---storage (general , provision)---connectivity -additional (subnet. public accessible , security group)---authentication -additional -DB name --backup retention--backup window time---maintenacwe---deletion protection

db select ---security group---inbound ---ssh

instance launch ----amazone linux---security group (existing--rds security group)

---sudo su

--yum install -y mysql

mysql -h <url paste--endpoint> -u admin -p dbname

for windows

create db ----my sql ---free tier----db identifier---connectivity (security group 3306,3389,http,hhttps)

-----on instace --IE enhance security off , firewall off

google---web platform installer---install this extension

start ---microsoft web platform---application my sql -add

start cmd and type-----mysql -h <end point>
-U admin -P dbname