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Thursday

	10/2024				
Monday	–	7	14	21	28
Tuesday	1	8	15	22	29
Wednesday	2	9	16	23	30
Thursday	3	10	17	24	31
Friday	4	11	18	25	–
Saturday	5	12	19	26	–
Sunday	6	13	20	27	–

42. week

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RDS

RDS :-
Database Service.
Relational Database Service

what is Database? → collection of DB is DB warehouse
collection of data, Organized for
efficient retrieval (for backup).

On-permises :-
* Setup
* Deploy   } more man effort.
* Operate
* Monitor

Cloud
Automation → * Time consuming,
* Admin task can done by
our self. (Hardware provisioning)
* less man efforts.

RDS Storage type :-

① Structured :- [RDS]
* row & columns.
* Tabular format. ex : SQL.
* Schema based Storage ⟹ ↓
ex : Stu-id (int), Stu-name (string)

② * unstructured - image, video, [S3]
③ * Semi-structured - Both image and SQL.
☑ redshift   ✗ lambda

15mb - 512KB   bcoz, data compressed and download

	11/2024				
Monday	–	4	11	18	25
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Saturday	2	9	16	23	30
Sunday	3	10	17	24	–

42. week

OCTOBER
Friday **18**

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Database engine :-	Environment :-	
mysql	* Develop.	} real
postgre Sql.	* Test	application
SQL Server.	* pre-prod	run in
Oracle.	* production	this environt
Amazon Aurora.		
Maria DB.		

Key benefits :-

1) Lower admin task.
2) performance ⟹ IOPS ⟹ GP (SSD),
provisioned IOPS (large database).
3) Scalability ⟹ scale up and down
4) Availability → Automatic Backup.
5) Monitoring → cloud watch.

master replica ⟹ 100% backup and no
downtime.

SQL :- we just create and give to others.
Structure Query Language.

db activities :-

1) Store = schemas based storage.
2) retrieval = SQL

	10/2024
Monday	.— 7 14 21 28
Tuesday	1 8 15 22 29
Wednesday	2 9 16 23 30
Thursday	3 10 17 24 31
Friday	4 11 18 25 —
Saturday	5 12 19 26 —
Sunday	6 13 20 27 —

42.week

Database Component :- (not monitoring)

1) database
2) Schemas.
3) Tables.
4) rows / columns.

Different type of DB :-

Structure :-
   Follow Schema to handle data Structure
ex : (RDS.)

Unstructure :-
   Any kind of DB ex (Redshift)

Semi - Structure :
   No Schema, SQl Based ex : (DynamoDB)

Read and write :-
   read - high
   write - low.

[master] ------------> [Slave] (only read)
   (r, w)

whenever master
down, Slave activate)
balanced.

So, we
need to create
group in diff region.

	11/2024
Monday	— 4 11 18 25
Tuesday	— 5 12 19 26
Wednesday	— 6 13 20 27
Thursday	— 7 14 21 28
Friday	1 8 15 22 29
Saturday	2 9 16 23 30
Sunday	3 10 17 24 —

42.week

Show we create group. bcoz we create
master and Slave

Subnet
Create

Aws → RDS → subnet group → region : singapore
→ create DB subnet Grp → name : mysubnet
description : mysubnet → Avability zone : 3 region.
② it can create wherever → create   [Subnet Select All]

DB Create

RDS → cr. db → ⊙ Standarded create
Engine option : mysql → engine version :
mysql 8.0.33 → Template ⊙ production free tier →
Avability & durability ⊙ multi-AZ DB cluster-new ⊗

③ Setting → DB name : database-1 → [master name :
admin] → [password : admin123. & confirm] → Instance configuration
DB instance class
   ⊙ Burstable classes (include t classes)

Storage → General purpose SSD → allocated
Storage : [20] → Disable autoscalling

Connectivity :— → ⊙ Don't connect to EC₂ →
DB subnet grp : mysubnet → public access ⊙ NO
→ VPC Security group → (next page) →

Just create Sec Grp in ec₂ → N/w & ser →
① Security Groups → cr. S.G name : rds desc : rds
→ Add rules (I.b r) [SSH ▼] & [mysql ▼]
[Source [0.0.0.0/0] anywhere → cr. S.G

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	10/2024						
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43. week

295/71 VPC S.Gr (F.w) ① choose existing →
[rds ▼] → Avability zone   [any one zone ▼]
→ Additional config → D.B options : Initial.
db name: Greens , [Backup ☑] [remove] copy
tags on snaphots , Encryption , maintaence
☑ enable auto minor version → cr. H.B.

[view credential certifie] :-
      now DB created & we need to connect with
Server.

AWS → EC₂ → rds → Amazon Linux 2
AMI → Key pair porn bcoz work in cmd →
n/w → Firewall (S.Gr) ① select existing grp
common s.m : [rds] → launch.

connect with cmd :-
      cmd → cd downloads → clp (ssh) step in
Aws → yes → now connected to aws &
      #sudo su

now, Go to RDB → DB → [☑ database-1] →
action ▼ → create read replica → read
→ Scan,charg region (default singapore ok)
[Disable] storage autoscaling → Avability
zone ① Single DB instance → S.Gr (rds)
Avability Zone [any ① ①B] → disable
      ⊛ [no preferen ce]
→ ②maintance ☐ enable AM ✓ → Cr. read replic

auto mirror version

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43. week

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now we install mysql in EC2 instance
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    # sudo su
    # yum install mysql -y
    # clear

now connect DB to EC2 :-
    How ? Ans → Go to RDS → database-1 → down
or endpoint : database-1.ct3as7whpgpox.ap-southeast-1.
    rds.amazon aws.com → copy & paste in cmd

        # mysql -h <paste> -u admin -P 3306
-P] admin123 → now we connected to mysql
enter ↵

        #show databases;
            it show green we[created]
now create DB ↓
   ⟶ create database authours;
   ⟶ show database;
   ⟶ use authours;
   ⟶ create table authours (id int, name varchar
(25), email varchar (26));
   ⟶ insert into authours (id, name, email)
values ('111', "Ramya", "ramya@gmail.com");
       ('222', "Kumar", "kumar@gmail.com");
       ('333", "Anand", "anand@gmail.com");
⟶ select * from authors;
⟶ select * from author;where id = '333';
⟶ alter table authours;to rename users;
⟶ select * from users;
⟶ alter table users; add columns address

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OCTOBER
Wednesday

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43.week

297/69 varchar (100);
> update users set id = '777' where id = '111';
> delete from users where id = '777';
> create database new;
> show database;
> drop database new;

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DDL - Data Definition language.
create; alter; Drop - Drop Table users;
Drop Database Authours;

DML - Data Manipulation language.
Insert; select update; Delete.

> exit

now login with <read> db —> copy endpoint
It read only, we can read.
    #mysql -h <read.paste> -u admin
-P 3306 -p
password: admin123

> show databases; ——> It showing.
> create database user;
        ↳ it show error < permission > read-
only