**What is Relational Databases ?**

**\*\*\*\*\*Relational Database are what most of us are all used to……..\*\*\*\*\***

- They have been around since the 70s.  
- Take Example of traditional Spreadsheet  
- Database  
- Tables  
- Rows  
- Columns

Ex –

|  |  |  |  |
| --- | --- | --- | --- |
| ID | First Name | Surname | Gender |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**Relational Database in AWS are**

- SQL Server

- Miracle

- MySQL Server

- PostgreSQL

- Arora

- MariaDB

**RDS has two key features**

1. Multi AZ - for disaster Recovery

- Automatic Failover

Ex

-User Types - **mynetleap.us-east-1.rds.amazon.com**

**ON - Primary database** **Standby -** **Secondary Database**

**AZ1 AZ2**

**OFF Primary db ON Secondary db**

1. Read Replicas - for performance

- No Automatic Failover

Ex

- User Types **mynetleap1.us-east-1.rds.amazon.com**

**ON primary db Creates Read Replica**

**AZ 1 AZ 2**

If Primary db fails -  
 Then you have to create and update dns of read replica to ec2 instance

- User types **mynetleap2.us-east-1.rds.amazon.com**

**OFF Primary db ON Read Replica**

**AZ 1 AZ 2**

**\*Non Relational Database are as**

-Collection = Table

- Document = Row

- Key Value Pairs = columns

**Example –**

**JSON Code**

{

"Id": "38293727104",

"First-name": "Raj",

"Surname": "patil",

"Age": "24",

"Address": [

{"Street": "Cisco",

"City": "Nashik", }

],

}

**Exam -**

|  |  |  |  |
| --- | --- | --- | --- |
| ID | First Name | Surname | Gender |
| 1 | Raj | Patil | M |
|  |  |  |  |
|  |  |  |  |

* If We put

{

"Id" : "38293727104",

"First-name" : "Raj",

"Surname" : "patil",

"Age" : "24",

"Address" : [

{ "Street" : "Cisco",

"City" : "Nashik", }

],

"Gender" : "Male",

}

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ID | First Name | Surname | Gender | Age |
| 1 | Raj | Patil | M | 24 |
|  |  |  |  |  |
|  |  |  |  |  |

Exam Tips

-RDS runs on Virtual Machines  
-You cannot log in to these Operating Systems however.  
-Patching of the RDS operating System and DB is Amazon’s responsibility  
-RDS is NOT Serverless