CloudFolks HUB

RDS Connectivity

1 — Introduction — These settings control how applications or tools connect to your database after it's created

2 — Compute resource

- **1 — Don't Connect to an EC2 Compute Resource**
  - **1** — The database is not directly integrated with any specific EC2 instance.
  - **2** — However, you can still connect to it from an EC2 instance or other resources, but you need to manually set up the security group
  - **3** — This involves configuring the security group to allow traffic from the specific EC2 instance or a range of IP addresses that need access to the database.
  - **4 — Examples**
    - **1** — Publicly accessible databases where the application server can be hosted anywhere
    - **2** — Databases accessed by services like AWS Lambda or other non-EC2 resources

- **2 — Connect to an EC2 Compute Resource**
  - **1** — This means the database is associated or integrated directly with a specific EC2 instance or instances
  - **2** — The database access is configured to work closely with an EC2 compute resource, usually within the same VPC or security group, enhancing connectivity and security
  - **3 — Examples**
    - **1** — An application hosted on an EC2 instance accessing the database directly within the same VPC or using the same security group settings
    - **2** — Tight integration for performance or security reasons, like a private database accessible only by a specific EC2 instance

3 — DB subnet group

- **1** — A DB subnet group defines which subnets in a virtual private cloud (VPC) are designated for your database.
- **2** — A DB subnet group has subnets in at least two Availability Zones in its AWS Region.
- **3** — For security, the subnets in a DB subnet group are typically private.
- **4** — When setting up a DB Subnet Group for Amazon RDS, you have two options
  - **1 — Choose Existing** — Offers more control and customization
  - **2 — Automatic Setup** — Quick, convenient, and AWS handles the configuration

4 — Public access

- **1** — Select Yes if you want EC2 instances and other resources outside of the VPC hosting the database to connect to it
- **2** — If you select No, Amazon RDS doesn't assign a public IP address to the database. In this case, no resources outside of the VPC can connect to it without extra configuration.

5 — VPC security group

- **1** — The security group associated with a database controls the inbound and outbound traffic for the database.
- **2** — If you set up a connection to an EC2 instance, RDS creates a security group for the database.
  - **1** — The security has an inbound rule with the EC2 instance's security group as the source.
  - **2** — The security group added by RDS ensures that the the EC2 instance can access the database.

6 — Certificate authority - optional

- **1** — If you install the certificate from the CA onto your application server, communication between your application and the database will be encrypted. This keeps your data secure as it travels.
- **2** — If you don't install the certificate, the communication will not be encrypted, which may expose your data to security risks.
- **3 — How to Get and Install the Certificate** — You can get the certificate directly from the AWS website https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/UsingWithRDS.SSL.html