## Assignment 11

## Create a VPC security group for a private DB instance



- 1. Log in to the AWS Management Console and navigate to the Amazon VPC service.
- 2. From the left-hand menu, select "Security Groups" under the "Security" heading.
- 3. Click on the "Create Security Group" button.
- 4. Enter a name for your security group and a description (optional).
- 5. Select the VPC where your DB instance is located from the "VPC" dropdown menu.
- 6. In the "Inbound Rules" tab, specify the inbound traffic rules for your security group. For example, if you want to allow access to the DB instance from a specific IP address range, you can create a rule allowing traffic on the database port (e.g. 3306 for MySQL) from that IP range. You can also create rules to allow traffic from other security groups in your VPC.
- 7. In the "Outbound Rules" tab, specify the outbound traffic rules for your security group. By default, all outbound traffic is allowed.
- 8. Click on the "Create" button to create your security group.
- 9. Once your security group is created, you can associate it with your private DB instance. To do this, go to the "Instances" section of the Amazon RDS service, select your DB instance, and click on the "Modify" button.
- 10. In the "Network & Security" section, select your VPC and your newly created security group from the dropdown menus.
- 11. Click on the "Continue" button and then "Modify DB Instance" to save your changes.
- 12. That's it! Your private DB instance is now protected by the security group you created.
- 13. I have used terraform IAC as code

```
14. # Create the VPC
15. resource "aws_vpc" "main" {
16. cidr_block = "10.0.0.0/16"
17. }
```

```
18.
 19. # Create the security group for the private DB instance
20. resource "aws_security_group" "private_db_sg" {
21. name_prefix = "private-db-sg-"
       name_prefix = "private-db-sg-"
 22.
23.
         vpc_id = aws_vpc.main.id
  24.
        ingress {
  25.
           from_port = 3306
  26.
           to_port = 3306
  27.
          protocol = "tcp"
  28.
            cidr_blocks = ["10.0.1.0/24"] # Replace with your desired IP range
  29.
  30.
  31.
        egress {
  32.
           from port = 0
  33.
           to port = 0
           protocol = "-1"
  34.
  35.
            cidr_blocks = ["0.0.0.0/0"]
  36.
  37. }
sg-0773e2ced85886f4e - private-db-sg-20230403202924689400000001
                                                                                                                   Actions ▼
  Details
 Security group name
                                 Security group ID
                                                                Description
 private-db-sg-
2023040320292468940000001
                                 ☐ sg-0773e2ced85886f4e
                                                                Managed by Terraform
                                                                                                □ vpc-0542bb9072bc235ff □
                                 Inbound rules count
                                                                Outbound rules count
 100918349305
                                 1 Permission entry
                                                                1 Permission entry
```