

Lab Exercise 10

Creating an AWS RDS Instance in Terraform

1. Create a Terraform Directory:

```
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS E:\> mkdir terraform-rds

Directory: E:\

Mode                LastWriteTime         Length Name
----                -
d-----         21-02-2024         10:22         terraform-rds

PS E:\> cd .\terraform-rds\
PS E:\terraform-rds> |
```

2. Create a Terraform Configuration File:

```
main.tf > ...
1  terraform {
2      required_providers {
3          aws = {
4              source = "hashicorp/aws"
5              version = "5.34.0"
6          }
7      }
8  }
9  provider "aws" {
10     region = "us-east-2"
11     access_key = "AKIAVRUVV37F4VMDRGTY"
12     secret_key = "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"
13 }
14
```

```

instance.tf > resource "aws_db_instance" "My-RDS"
1  resource "aws_db_instance" "My-RDS" {
2      allocated_storage = 10
3      db_name            = "mydb"
4      engine             = "mysql"
5      engine_version     = "5.7"
6      instance_class     = "db.t2.micro"
7      username          = "admin"
8      password          = "rudra123"
9      parameter_group_name = "default.mysql5.7"
10     skip_final_snapshot = true
11     identifier          = "lab-10-db"
12     publicly_accessible = true
13 }

```

3. Initialize and Apply:

```

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PS E:\terraform-rds> terraform init

Initializing the backend...

Initializing provider plugins...
- Reusing previous version of hashicorp/aws from the dependency lock file
- Using previously-installed hashicorp/aws v5.34.0

Terraform has been successfully initialized!

You may now begin working with Terraform. Try running "terraform plan" to see
any changes that are required for your infrastructure. All Terraform commands
should now work.

If you ever set or change modules or backend configuration for Terraform,
rerun this command to reinitialize your working directory. If you forget, other
commands will detect it and remind you to do so if necessary.

```

```

+ port                = (known after apply)
+ publicly_accessible = true
+ replica_mode        = (known after apply)
+ replicas            = (known after apply)
+ resource_id         = (known after apply)
+ skip_final_snapshot = true
+ snapshot_identifier = (known after apply)
+ status              = (known after apply)
+ storage_throughput  = (known after apply)
+ storage_type        = (known after apply)
+ tags_all            = (known after apply)
+ timezone            = (known after apply)
+ username            = "admin"
+ vpc_security_group_ids = (known after apply)
}

```

Plan: 1 to add, 0 to change, 0 to destroy.

Do you want to perform these actions?

Terraform will perform the actions described above.
Only 'yes' will be accepted to approve.

Enter a value: yes

```

aws_db_instance.My-RDS: Creating...
aws_db_instance.My-RDS: Still creating... [10s elapsed]
aws_db_instance.My-RDS: Still creating... [20s elapsed]
aws_db_instance.My-RDS: Still creating... [30s elapsed]
aws_db_instance.My-RDS: Still creating... [40s elapsed]

```

Databases (1)

Group resources

Modify

Actions

▼

Restore from S3

Create database

Filter by databases

<

1

>

<div><div></div><div>DB identifier</div><div>▼</div></div>	<div><div></div><div>Status</div><div>▼</div></div>	<div><div></div><div>Role</div><div>▼</div></div>	<div><div></div><div>Engine</div><div>▼</div></div>	<div><div></div><div>Region & AZ</div><div>▼</div></div>	<div><div></div><div>Size</div><div>▼</div></div>	<div><div></div><div>Recommendations</div><div>▼</div></div>	CPU
<div><div></div><div>lab-10-db</div></div>	<div><div></div><div>Available</div></div>	Instance	MySQL Community	us-east-2c	db.t2.micro		-

MySQL Connections

mydb

admin

lab-10-db.c3e0awmq6bck.us-east-2....

4. Clean Up:

```
aws_db_instance.My-RDS: Destroying... [id=db-FJK2TKB2XLNMYXD5FH2L65NPYY]
aws_db_instance.My-RDS: Still destroying... [id=db-FJK2TKB2XLNMYXD5FH2L65NPYY, 10s elapsed]
aws_db_instance.My-RDS: Still destroying... [id=db-FJK2TKB2XLNMYXD5FH2L65NPYY, 20s elapsed]
aws_db_instance.My-RDS: Still destroying... [id=db-FJK2TKB2XLNMYXD5FH2L65NPYY, 30s elapsed]
aws_db_instance.My-RDS: Still destroying... [id=db-FJK2TKB2XLNMYXD5FH2L65NPYY, 40s elapsed]
aws_db_instance.My-RDS: Still destroying... [id=db-FJK2TKB2XLNMYXD5FH2L65NPYY, 50s elapsed]
aws_db_instance.My-RDS: Still destroying... [id=db-FJK2TKB2XLNMYXD5FH2L65NPYY, 1m0s elapsed]
aws_db_instance.My-RDS: Still destroying... [id=db-FJK2TKB2XLNMYXD5FH2L65NPYY, 1m10s elapsed]
aws_db_instance.My-RDS: Still destroying... [id=db-FJK2TKB2XLNMYXD5FH2L65NPYY, 1m20s elapsed]
aws_db_instance.My-RDS: Still destroying... [id=db-FJK2TKB2XLNMYXD5FH2L65NPYY, 1m30s elapsed]
aws_db_instance.My-RDS: Still destroying... [id=db-FJK2TKB2XLNMYXD5FH2L65NPYY, 1m40s elapsed]
aws_db_instance.My-RDS: Still destroying... [id=db-FJK2TKB2XLNMYXD5FH2L65NPYY, 1m50s elapsed]
aws_db_instance.My-RDS: Still destroying... [id=db-FJK2TKB2XLNMYXD5FH2L65NPYY, 2m0s elapsed]
aws_db_instance.My-RDS: Still destroying... [id=db-FJK2TKB2XLNMYXD5FH2L65NPYY, 2m10s elapsed]
aws_db_instance.My-RDS: Still destroying... [id=db-FJK2TKB2XLNMYXD5FH2L65NPYY, 2m20s elapsed]
aws_db_instance.My-RDS: Still destroying... [id=db-FJK2TKB2XLNMYXD5FH2L65NPYY, 2m30s elapsed]
aws_db_instance.My-RDS: Still destroying... [id=db-FJK2TKB2XLNMYXD5FH2L65NPYY, 2m40s elapsed]
aws_db_instance.My-RDS: Still destroying... [id=db-FJK2TKB2XLNMYXD5FH2L65NPYY, 2m50s elapsed]
aws_db_instance.My-RDS: Still destroying... [id=db-FJK2TKB2XLNMYXD5FH2L65NPYY, 3m0s elapsed]
aws_db_instance.My-RDS: Still destroying... [id=db-FJK2TKB2XLNMYXD5FH2L65NPYY, 3m10s elapsed]
aws_db_instance.My-RDS: Still destroying... [id=db-FJK2TKB2XLNMYXD5FH2L65NPYY, 3m20s elapsed]
aws_db_instance.My-RDS: Still destroying... [id=db-FJK2TKB2XLNMYXD5FH2L65NPYY, 3m30s elapsed]
aws_db_instance.My-RDS: Still destroying... [id=db-FJK2TKB2XLNMYXD5FH2L65NPYY, 3m40s elapsed]
aws_db_instance.My-RDS: Still destroying... [id=db-FJK2TKB2XLNMYXD5FH2L65NPYY, 3m50s elapsed]
aws_db_instance.My-RDS: Still destroying... [id=db-FJK2TKB2XLNMYXD5FH2L65NPYY, 4m0s elapsed]
aws_db_instance.My-RDS: Still destroying... [id=db-FJK2TKB2XLNMYXD5FH2L65NPYY, 4m10s elapsed]
aws_db_instance.My-RDS: Destruction complete after 4m11s

Destroy complete! Resources: 1 destroyed.
PS E:\terraform-rds> |
```

Databases (0)

Group resources

Modify

Actions ▾

Restore from S3

Create database

Filter by databases

< 1 > ⚙

DB identifier ▲	Status ▾	Role ▾	Engine ▾	Region & AZ ▾	Size ▾	Recommendations ▾	CPU ▾	Current act
No instances found								