

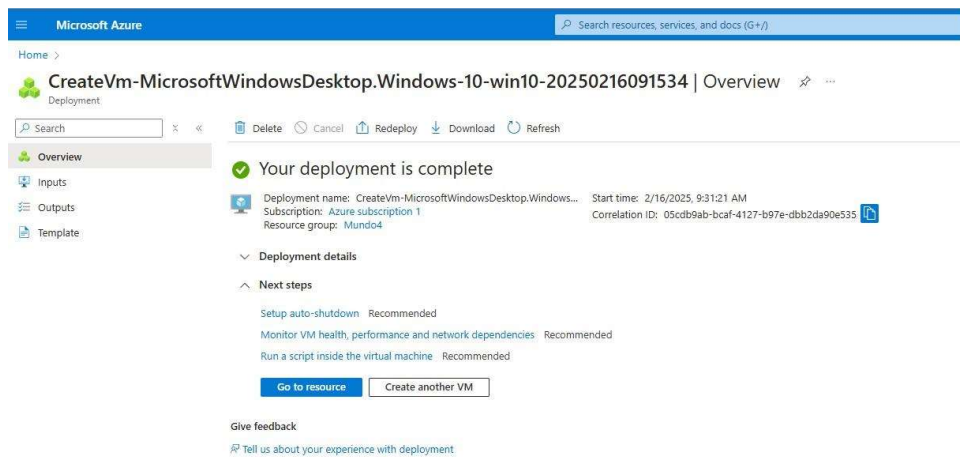
	<p align="center">UNIVERSIDADE ESTÁCIO DE SÁ POLO CENTRO – SANTA ROSA – RS</p> <p align="center">DESENVOLVIMENTO FULL STACK Relatório da Missão Prática Nível 4 – Mundo 4</p>
Disciplina:	RPG0026 - TIRANDO PROVEITO DA NUVEM PARA PROJETOS DE SOFTWARE
Aluno/Matrícula:	Anderson Rech - 202304442215
Turma:	2023.2
Repositório:	https://github.com/4nderech/Mundo4-Missao-Pratica-N4.git

RPG0026 - TIRANDO PROVEITO DA NUVEM PARA PROJETOS DE SOFTWARE

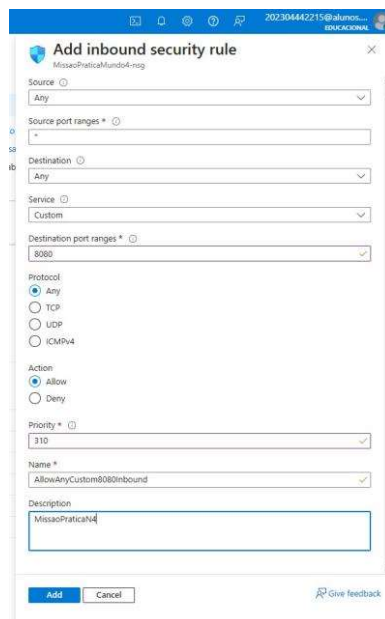
Objetivos da prática

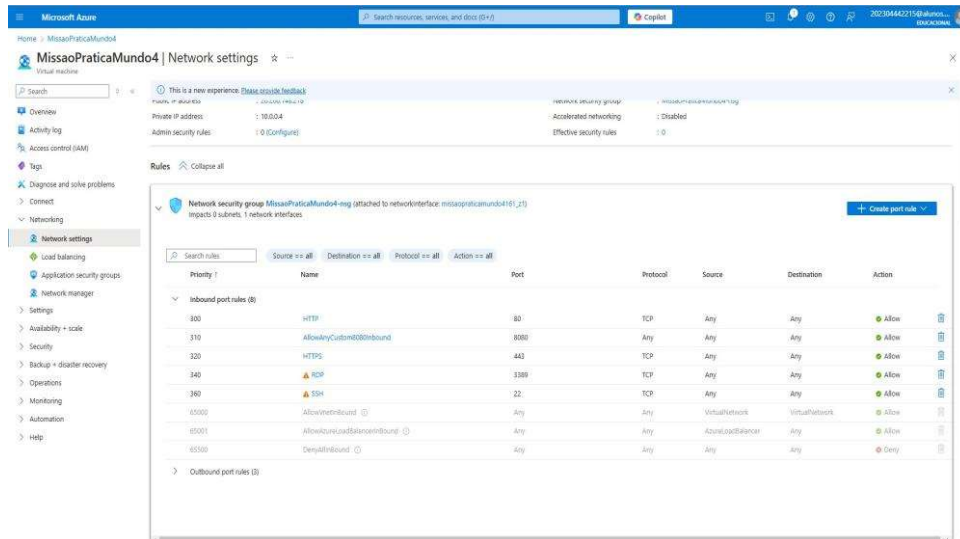
- Demonstrar habilidade na criação e gerenciamento de recursos na Nuvem Azure, adquirindo conhecimento sobre a estrutura básica da plataforma Azure
- Utilizar efetivamente o portal Azure para criar e configurar uma Máquina Virtual (VM), demonstrando compreensão dos recursos e suas funções.
- Configurar regras de rede e grupos de segurança, adquirindo conhecimento sobre a estrutura das regras de rede na Nuvem Azure.
- Importar um arquivo .bacpac para um banco de dados no Banco de Dados SQL do Azure.
- Criar e configurar um aplicativo web no Azure, demonstrando compreensão do mecanismo de hospedagem e implantação de aplicativos web.

Microatividade 1: Criar uma Máquina Virtual (VM) no Azure

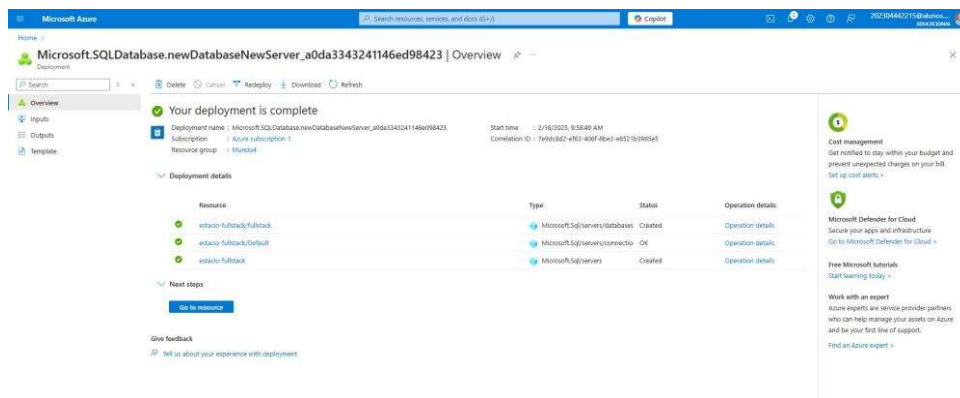


Microatividade 2: Configurar Regras de Rede e Grupos de Segurança no Azure





Microatividade 3: Criar um banco de dados SQL do Azure



Microatividade 4: Conecta-se ao seu banco de dados

```
Microsoft Azure
Switch to PowerShell | Start | Manage files | New session | Editor | Web preview | Settings | Help
Respecting a Cloud Shell. Succeeded.
Connecting terminal...

Subscription used to launch your Cloud Shell 9954fe-6c24-4328-985a-Sae62111f6a6 is not registered to Microsoft.CloudShell Namespace. Please follow these instructions "https://aka.ms/RegisterCloudShell" to register. In future, unregister
ed subscriptions will have restricted access to CloudShell service.

Your Cloud Shell session will be ephemeral so no files or system changes will persist beyond your current session.
anderson [ ~ ]$ az configure --defaults group=fullstack sql-server=estacio-fullstack
anderson [ ~ ]$ az sql db list

{
  "autoPauseDelay": 60,
  "availabilityZone": "NoPreference",
  "catalogCollation": "SQL_Latin1_General_CP1_CI_AS",
  "collation": "SQL_Latin1_General_CP1_CI_AS",
  "creationDate": null,
  "creationDate": "2025-02-10T11:00:11.617000+00:00",
  "currentBackupStorageRedundancy": "local",
  "currentServiceObjectiveName": "GP_S_Gen5_1",
  "currentSku": {
    "capacity": 1,
    "family": "Gen5",
    "name": "GP_S_Gen5",
    "size": null,
    "tier": "GeneralPurpose"
  },
  "databaseID": "f6b5c945-b1c3-4242-ab4f-9936473d540",
  "defaultSecondaryLocation": "southcentralus",
  "lastRestoreDate": "2025-02-10T11:00:06+00:00",
  "edition": "GeneralPurpose",
  "elasticPoolId": null,
  "elasticPoolName": null,
  "encryptionProtector": null,
  "encryptionProtectorAutoRotation": null,
  "failoverGroupId": null,
  "federatedIdentity": null,
  "freeInitExhaustionBehavior": null,
  "highAvailabilityReplicaCount": null,
  "id": "/subscriptions/9954fe-6c24-4328-985a-Sae62111f6a6/resourceGroups/Fullstack/providers/Microsoft.Sql/servers/estacio-fullstack/databases/fullstack",
  "identity": null,
  "isInfracrptionEnabled": false,
  "keys": null,
  "kind": "V2.0,user,secure,serverless",
  "logPath": false,
  "licenseType": null,
  "location": null,
  "longformRetentionBackupSourceId": null,
  "maintenanceConfigurationId": "/subscriptions/9954fe-6c24-4328-985a-Sae62111f6a6/providers/Microsoft.Maintenance/publicMaintenanceConfigurations/SQL_Default",
  "managedBy": null,
  "manualRestore": null,
  "maxSizeBytes": 1073741824,
  "maxSizeBytes": 1073741824,
  "minCapacity": 0.5,
  "name": "fullstack",
  "status": "Online"
}

anderson [ ~ ]$ az sql db show --name fullstack

{
  "autoPauseDelay": 60,
  "availabilityZone": "NoPreference",
  "catalogCollation": "SQL_Latin1_General_CP1_CI_AS",
  "collation": "SQL_Latin1_General_CP1_CI_AS",
  "creationDate": null,
  "creationDate": "2025-02-10T11:00:11.617000+00:00",
  "currentBackupStorageRedundancy": "local",
  "currentServiceObjectiveName": "GP_S_Gen5_1",
  "currentSku": {
    "capacity": 1,
    "family": "Gen5",
    "name": "GP_S_Gen5",
    "size": null,
    "tier": "GeneralPurpose"
  },
  "databaseID": "f6b5c945-b1c3-4242-ab4f-9936473d540",
  "defaultSecondaryLocation": "southcentralus",
  "lastRestoreDate": "2025-02-10T11:00:06+00:00",
  "edition": "GeneralPurpose",
  "elasticPoolId": null,
  "elasticPoolName": null,
  "encryptionProtector": null,
  "encryptionProtectorAutoRotation": null,
  "failoverGroupId": null,
  "federatedIdentity": null,
  "freeInitExhaustionBehavior": null,
  "highAvailabilityReplicaCount": null,
  "id": "/subscriptions/9954fe-6c24-4328-985a-Sae62111f6a6/resourceGroups/Fullstack/providers/Microsoft.Sql/servers/estacio-fullstack/databases/fullstack",
  "identity": null,
  "isInfracrptionEnabled": false,
  "keys": null,
  "kind": "V2.0,user,secure,serverless",
  "logPath": false,
  "licenseType": null,
  "location": "westus2",
  "longformRetentionBackupSourceId": null,
  "maintenanceConfigurationId": "/subscriptions/9954fe-6c24-4328-985a-Sae62111f6a6/providers/Microsoft.Maintenance/publicMaintenanceConfigurations/SQL_Default",
  "managedBy": null,
  "manualRestore": null,
  "maxSizeBytes": 1073741824,
  "maxSizeBytes": 1073741824,
  "minCapacity": 0.5,
  "name": "fullstack",
  "status": "Online"
}

anderson [ ~ ]$ az sql db show --name fullstack | jq '{name: .name, maxSizeBytes: .maxSizeBytes, status: .status}'
{
  "name": "fullstack",
  "maxSizeBytes": 1073741824,
  "status": "Online"
}

anderson [ ~ ]$

anderson [ ~ ]$ az sql db show-connection-string --client sqlcmd --name fullstack
"sqlcmd -S tcp:estacio-fullstack.database.windows.net,1433 -d fullstack -U <username> -P <password> -N -l 30"

anderson [ ~ ]$
```

Microatividade 5: CRUD em um Banco de Dados SQL do Azure

```
1> SELECT name FROM sys.tables;
2> GO
name
-----
Drivers

(1 rows affected)
1> INSERT INTO Drivers (DriverID, LastName, FirstName, OriginCity) VALUES (754, 'Silva', 'João', 'Rio de Janeiro');
2> GO

(1 rows affected)
1> SELECT DriverID, OriginCity FROM Drivers;
2> GO
DriverID      OriginCity
-----
754 Rio de Janeiro

(1 rows affected)
1> UPDATE Drivers SET OriginCity='São Paulo' WHERE DriverID=754;
2> GO

(1 rows affected)
1> SELECT DriverID, OriginCity FROM Drivers;
2> GO
DriverID      OriginCity
-----
754 São Paulo

(1 rows affected)
1> DELETE FROM Drivers WHERE DriverID=745;
2> GO

(0 rows affected)
1> SELECT COUNT(*) FROM Drivers;
2> GO
-----
1

(1 rows affected)
1> 
```

Switch to Bash Restart Manage files New session Editor Web preview Settings Help

Requesting a Cloud Shell.Succeeded.
Connecting terminal...

Subscription used to launch your CloudShell b9954afe-6c24-4320-985a-5ae62111f6a6 is not registered to Microsoft.CloudShell Namespace. Please, in future, unregistered subscriptions will have restricted access to CloudShell service.

Your Cloud Shell session will be ephemeral so no files or system changes will persist beyond your current session.

MOTD: Azure Cloud Shell now includes Predictive IntelliSense! Learn more: <https://aka.ms/CloudShell/IntelliSense>

VERBOSE: Authenticating to Azure ...

VERBOSE: Building your Azure drive ...

PS /home/anderson> sqlcmd -S tcp:estacio-fullstack.database.windows.net,1433 -d fullstack -U Ander_rech -P 'Ma1702!Mundo4.' -N -1 30

1>

```
PS /home/anderson> sqlcmd -S tcp:estacio-fullstack.database.windows.net,1433 -d fullstack -U Ander_rech -P 'Ma1702!Mundo4.' -N -1 30
1> CREATE TABLE Drivers (DriverID int, LastName varchar(255), FirstName varchar(255), OriginCity varchar(255));
2> GO
1> SELECT name FROM sys.tables;
2> GO
name
-----
Drivers

(1 rows affected)
1> 
```

```
1> SELECT name FROM sys.tables;
2> GO
name
-----
Drivers

(1 rows affected)
1> INSERT INTO Drivers (DriverID, LastName, FirstName, OriginCity) VALUES (754, 'Silva', 'João', 'Rio de Janeiro');
2> GO

(1 rows affected)
1> 
```

Missão Prática | Tirando proveito da nuvem para projetos de software

Script do Banco de Dados (DB):

```
--- String de conexão no Banco de Dados ---
sqlcmd -S tcp:estacio-fullstack.database.windows.net,1433 -d fullstack -U Ander_rech -P 'Ma1702!Mundo4.' -N -1 30

--- Criação das tabelas ---
CREATE TABLE Drivers (
    DriverID INT PRIMARY KEY,
    Nome VARCHAR(100),
    CNH VARCHAR(20),
    Endereco VARCHAR(200),
    Contato VARCHAR(50)
);

CREATE TABLE Clients (
    ClientID INT PRIMARY KEY,
    Nome VARCHAR(100),
    Empresa VARCHAR(100),
    Endereco VARCHAR(200),
    Contato VARCHAR(50)
);

CREATE TABLE Orders (
    OrderID INT PRIMARY KEY,
    ClientID INT,
    DriverID INT,
    DetalhesPedido TEXT,
    DataEntrega DATE,
    Status VARCHAR(50),
    FOREIGN KEY (ClientID) REFERENCES Clients(ClientID),
    FOREIGN KEY (DriverID) REFERENCES Drivers(DriverID)
);
GO

--- Inserir dados na tabela Drivers ---
INSERT INTO Drivers (DriverID, Nome, CNH, Endereco, Contato) VALUES
(1, 'João Pedro Silva', '22.221.681-5', 'Rua Boitata, 121, Pinheiros', '(44) 2244-5487'),
(2, 'Alex Pinheiro', '192.666.807-7', 'Avenida Brasil, 870, Platinas', '(65) 8463-5587'),
(3, 'Eugenio José Moreira', '013.870.645-1', 'Rua Costaneira, 1108, Central', '(96) 2584-1100');
GO

--- Inserir dados na tabela Clients ---
INSERT INTO Clients (ClientID, Nome, Empresa, Endereco, Contato) VALUES
(1, 'Central Peças', 'Central Peças e Distribuidora', 'Rua dos Pinhos, 850, Central', '(22) 5879-4555'),
(2, 'Julio da Silveira', 'Supermercado Julio', 'Avenida Beira Rio, 1120, Saponeira', '(87) 2266-5587'),
(3, 'Carlos Manuel Orto', 'Distribuidora Vai Que Da', 'Rua Milenar, 2300, Alto do Parque', '(51) 5511-8922');
GO

--- Inserir dados na tabela Orders ---
INSERT INTO Orders (OrderID, ClientID, DriverID, DetalhesPedido, DataEntrega, Status) VALUES
(1, 1, 1, 'Entregar 10 caixas de faróis novos', '2025-02-10', 'Pendente'),
(2, 2, 2, 'Entregar 100 Volumes de hortigrangeiros', '2024-12-07', 'Finalizado'),
(3, 3, 3, 'Entregar 200 Engradados de Cerveja', '2025-06-01', 'Finalizado');
GO

-- Seleciona Nome e CNH da tabela Motoristas ---
SELECT Nome, CNH, Contato FROM Drivers;
GO

-- Seleciona Nome e Endereco da tabela Clients ---
SELECT Nome, Endereco, Contato FROM Clients;
GO

-- Seleciona clientes que tem pedidos pendentes ---
SELECT C.Nome, C.Endereco, C.Contato FROM Clients C JOIN Orders O ON C.ClientID = O.ClientID WHERE O.Status = 'Pendente';
GO

-- Seleciona Clientes com pedidos finalizados ---
SELECT C.Nome, C.Endereco, C.Contato FROM Clients C JOIN Orders O ON C.ClientID = O.ClientID WHERE O.Status = 'Finalizado';
GO

--- Atualiza o status das Orders 3 para 'Pendente' ---
UPDATE Orders SET Status = 'Pendente' WHERE OrderID IN (3);
GO

-- Deleta o registro com OrderID = 2 da tabela Orders. ---
DELETE FROM Orders WHERE OrderID = 2;
GO
```


Resultados dos scripts CRUD no SQL Server:

```
20 /home/anderson@glond ~$ top-estacao-fullstack-database-windows-net-1433 -f fullstack -u Ander_cach -p 'Mail02@mandat.' -N -l 30
21 CREATE TABLE Drivers (DriverID INT PRIMARY KEY, Nome VARCHAR(100), CNH VARCHAR(20), Endereco VARCHAR(200), Contato VARCHAR(50));
22 CREATE TABLE Clientes (ClientID INT PRIMARY KEY, Nome VARCHAR(100), Empresa VARCHAR(100), Endereco VARCHAR(200), Contato VARCHAR(50));
23 PRIMARY KEY, ClientID INT, DriverID INT, DetalhesPedido TEXT, DataFatura DATE, Status VARCHAR(50), FOREIGN KEY (ClientID) REFERENCES Clientes(ClientID), FOREIGN KEY (DriverID) REFERENCES Drivers(DriverID));
24 GO
25 SELECT name FROM sys.tables;
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