

Architecture Analytics & NoSQL

Teste de evidência:

1- Primeiramente crie uma instancia da maquina no site da oracle nomeando-a:

Crie uma instância para implantar e executar aplicativos ou salve como uma pilha reutilizável do Terraform para criar uma instância com o Resource Manager.

Nome
axistech

2- Selecionar a imagem da versão oracle, acima da versão 6.09:

Imagem

Alterar imagem



Sistema operacional Oracle Linux 8

Construção de imagem 2025.03.18-0

Segurança Instância protegida

3- Crie a chave pública e privada:

Add SSH keys

Generate an [SSH key pair](#) to connect to the instance using a Secure Shell (SSH) connection, or upload a public key that you already have.

☒ Generate a key pair for me ☐ Upload public key files (.pub) ☐ Paste public keys ☐ No SSH keys

i Download the private key so that you can connect to the instance using SSH. It will not be shown again.

[Save private key](#) [Save public key](#)

Summary
Compute
This estimate includes tenancy pricing. Use the calculator to get a more accurate estimate.

4- Abra o cloudshell e use cat na chave .pub que acabou de ser gerada:

```
rm59768@cloudshell:~ (sa-saopaulo-1)$ cat axistech.pub
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQCAjpa7u6jnuB5YCP2ASGKlCB7dV0K6Q20HUGXKSOuz4X8rtN1/4pM17mCpyX0H01yQmWd1gH6KwCh0zVJknyv/BB4htCEfbu5YXpcS87e92TQbzHgUswR4Mmk/FkTRP/eeIA/njA28BY7gArByClxQp1cp70
KONT18Umw/c3b5hrxgFEVnSDG1Q
rm59768@cloudshell:~ (sa-saopaulo-1)$
```

5- Copie o código que foi gerado após utilizar o cat axistech.pub no cloudshell e cole na caixa de texto da opção ssh keys:

Add SSH keys

Generate an [SSH key pair](#) to connect to the instance using a Secure Shell (SSH) connection, or upload a public key that you already have.

☐ Generate a key pair for me ☐ Upload public key files (.pub) ☒ Paste public keys ☐ No SSH keys

SSH keys

OkAAAZyAmiZxPW+ud4gvPZsZ9Cn2x4q8kBlDL9VNjwbCM3vH3R8dtcN8ndEgd7He5yRE5l69x7YjzseXIXqEwUQABJTtintpGIQAyplsAEi6JT ssh-key-2025-04-06

Example: ssh-rsa AAAAB3Nza...NWap6Prib ssh-key-2021-01-27 [See all supported key types](#)

+ Another key

6- Após pegar o código da chave inicie a máquina até ela ficar pronta e já copie o ip para a próxima etapa:

axistech

Start Stop Reboot **Terminate** More actions

Instance information Shielded Instance Maintenance Oracle Cloud Agent Notifications Security Tags

General information

Availability domain: AD-1
Fault domain: FD-2
Region: sa-saopaulo-1
OCID: b78cmq Show Copy
Launched: Sun, Apr 6, 2025, 20:41:47 UTC
Compartment: rm561142 (root)
Capacity type: On-demand

Instance details

Virtual cloud network: vcn-20241010-0820
Launch mode: PARAVIRTUALIZED
Instance metadata service: Versions 1 and 2 [Edit](#)

Image details

Instance access

You [connect to a running Linux instance](#) using a Secure Shell (SSH) connection. You'll need the private key from the SSH key pair that was used to create the instance.

Public IP address: 168.75.78.97 [Copy](#)

Username: opc

Primary VNIC

Public IPv4 address: 168.75.78.97
Private IPv4 address: 10.0.0.146
Route table: [Default Route Table for vcn-20241010-0820](#)
Network security groups: None [Edit](#)
Subnet: [subnet-20241010-0820](#)
Private DNS record: Enable
Hostname: axistech
Internal FQDN: axistech... [Show](#) [Copy](#)

7- Pegar a sua ip da máquina criada para utilizar o comando ssh opc@(OBS: Tivemos que utilizar o chmod 400 nas 2 chaves para conseguir a permissão para conectar):

```
rm561142@cloudshell:~ (sa-saopaulo-1)$ chmod 400 axistech.pub
rm561142@cloudshell:~ (sa-saopaulo-1)$ chmod 400 axistech.key
rm561142@cloudshell:~ (sa-saopaulo-1)$ ssh opc@168.75.78.97 -i axistech.key
Activate the web console with: systemctl enable --now cockpit.socket

[opc@axistech ~]$
```

- 8- Utilizar o sudo -s para executar comandos como se fosse o root e depois usar o dnf instal para baixarmos o database oracle 21c:

```
[opc@axistech ~]$ sudo -s
[root@axistech opc]# sudo dnf install -y oracle-database-preinstall-21c
```

```
[opc@axistech ~]$ sudo -s
[root@axistech opc]# sudo dnf install -y oracle-database-preinstall-21c
Last metadata expiration check: 2:38:58 ago on Sun 06 Apr 2025 09:19:24 PM GMT.
Dependencies resolved.
================================================================================
Package                                Architecture      Version            Repository          Size
================================================================================
ksplice for Oracle Linux 8 (x86_64)    x86_64            2.0-1.el8_6_4      Oracle Linux 8      846 kB
MySQL 8.4 Server Community for Oracle  x86_64            8.4.0-1.el8_6_4    Oracle Linux 8      395 kB
MySQL 8.4 Tools Community for Oracle   x86_64            8.4.0-1.el8_6_4    Oracle Linux 8      41 kB
MySQL Connector/Community for Oracle   x86_64            8.4.0-1.el8_6_4    Oracle Linux 8      136 kB
Oracle Linux 8 BaseOS latest (x86_64)  x86_64            8.6-1.el8_6_4      Oracle Linux 8      95 MB
Oracle Linux 8 Application Stream (x86_ x86_64            8.6-1.el8_6_4      Oracle Linux 8      69 MB
Oracle Linux 8 Addons (x86_64)          x86_64            8.6-1.el8_6_4      Oracle Linux 8      11 MB
Latest Unbreakable Enterprise Kernel   x86_64            7.7-1.el8_6_4      Oracle Linux 8      58 MB
Dependencies resolved.
================================================================================
```

- 9- Vamos verificar se o arquivo rpm foi baixado:

```
[root@axistech opc]# ls -lh
total 2.2G
-rw-r--r-- 1 opc opc 2.2G Apr  6 21:17 oracle-database-xe-21c-1.0-1.el8.x86_64.rpm
[root@axistech opc]# sudo dnf localinstall oracle-database-xe-21c-1.0-1.el8.x86_64.rpm -y
Last metadata expiration check: 2:38:58 ago on Sun 06 Apr 2025 09:19:24 PM GMT.
Dependencies resolved.
=====
Package                                Architecture      Version            Repository          Size
=====
```

- 10- Configurar o arquivo da oracle 21c após sua instalação:

```
[root@axistech opc]# sudo /etc/init.d/oracle-xe-21c configure
```

- 11- Agora vamos acessar o sql após a instalação e configuração do oracle 21c usando o sqlplus sys; para acessar nossa máquina virtual no cloudshell em outra máquina é obrigatório fazer os 3 exports mostrado nessa imagem antes de dar o comando sqlplus:

```
[root@axistech opc]# export ORACLE_HOME=/opt/oracle/product/21c/dbhomeXE
[root@axistech opc]# export PATH=$ORACLE_HOME/bin:$PATH
[root@axistech opc]# export ORACLE_SID=XE
[root@axistech opc]# sqlplus sys/axistech@localhost:1521/XEPDB1 as sysdba

SQL*Plus: Release 21.0.0.0.0 - Production on Mon Apr 7 00:09:51 2025
Version 21.3.0.0.0

Copyright (c) 1982, 2021, Oracle. All rights reserved.

Connected to:
Oracle Database 21c Express Edition Release 21.0.0.0.0 - Production
Version 21.3.0.0.0

SQL>
```

12- Criação da tabela SQL com base no nosso dataset escolhido, inserindo as colunas e o tipo delas:

```
SQL> CREATE TABLE T_MARKET_SALES (  
    INVOICE_ID      VARCHAR2(26 BYTE),  
    BRANCH          VARCHAR2(26 BYTE),  
    CITY            VARCHAR2(26 BYTE),  
    CUSTOMER_TYPE   VARCHAR2(26 BYTE),  
    GENDER          VARCHAR2(26 BYTE),  
    PRODUCT_LINE    VARCHAR2(26 BYTE),  
    UNIT_PRICE      NUMBER(38,2),  
    QUANTITY        NUMBER(38,0),  
    TAX_5_PERCENT   NUMBER(38,4),  
    TOTAL           VARCHAR2(26 BYTE),  
    DATA           DATE,  
    TIME            VARCHAR2(26 BYTE),  
    PAYMENT         VARCHAR2(26 BYTE),  
    COGS            NUMBER( 2 38,2),  
    RATING          NUMBER(38,1)  
);  
3      4      5      6      7      8      9      10     11     12     13     14     15     16     17  
Table created.
```

13- Inserindo os dados da tabela e o commit:

```
SQL> INSERT INTO T_MARKET_SALES (  
    INVOICE_ID, BRANCH, CITY, CUSTOMER_TYPE, GENDER, PRODUCT_LINE,  
    UNIT_PRICE, QUANTITY, TAX_5_PERCENT, TOTAL, DATA, TIME, PAYMENT,  
    COGS, RATING  
) VALUES (  
    '750-67-8428', 'A', 'Yangon', 'Member', 'Female', 'Health and beauty',  
    74.69, 7, 26.1415, '548.9715', TO_DATE('2023-01-05', 'YYYY-MM-DD'), '13:27', 'Ewallet',  
    522.83, 9.1  
);  
  
INSERT INTO T_MARKET_SALES (  
    INVOICE_ID, BRANCH, CITY, CUSTOMER_TYPE, GENDER, PRODUCT_LINE,  
    UNIT_PRICE, QUANTITY, TAX_5_PERCENT, TOTAL 2 , DATA, TIME, PAYMENT,  
    COGS, RATING  
) VALUES (  
    '226-31-3081', 'C', 'Naypyitaw', 'Normal', 'Male', 'Electronic accessories',  
    15.28, 5, 3.82, '80.22', TO_DATE('2023-01-07', 'YYYY-MM-DD'), '15:30', 'Credit card',  
    76.4, 7.2 3  
);  
  
INSERT INTO T_MARKET_SALES (  
    INVOICE_ID, BRANCH, C 4 ITY, CUSTOMER_TYPE, GENDER, PRODUCT_LINE,  
    UNIT_PRICE, QUANTITY, TAX_5_PERCENT, TOTAL, DATA, TIME, PAYMENT,  
    COGS, RATING  
) V 5 ALUES (  
    '373-73-7910', 'B', 'Mandalay', 'Member', 'Male', 'Food and beverages',  
    46.33, 3, 6.9495, '145.9395', TO_DATE('2023-01-09', 'YYYY-MM-DD'), '12:45', 'Cash',  
    139. 6 0, 8.6  
);  
  
COMMIT;  
7      8      9  
1 row created.
```

14 – Consulta da tabela usando o SELECT:

```
SQL> SELECT * FROM T_MARKET_SALES;
```

INVOICE_ID	BRANCH	CITY	CUSTOMER_TYPE	GENDER	PRODUCT_LINE	UNIT_PRICE	QUANTITY	TAX_5_PERCENT	TOTAL	DATA	TIME	PAYMENT	COGS	RATING
750-67-8428	A	Yangon	Member	Female	Health and beauty	74.69	7	26.1415	548.9715	05-JAN-23	13:27	Ewallet	522.83	9.1
226-31-3081	C	Naypyitaw	Normal	Male	Electronic accessories	15.28	5	3.82	80.22	07-JAN-23	15:30	Credit card	76.4	7.2
373-73-7910	B	Mandalay	Member	Male	Food and beverages	46.33	3	6.9495	145.9395	09-JAN-23	12:45	Cash	139	8.6

-Finalizando a parte do cloudshell temos que colocar as informações para o acesso remoto ao banco da Oracle que acabamos de configurar:

IP público: 168.75.78.97

Usuário: system

Senha: axistech

Service name: XEPDB1

-Com esses dados conseguimos entrar por outra vm pelo cloudshell e acessar esta tabela que criamos que está em outra VM.