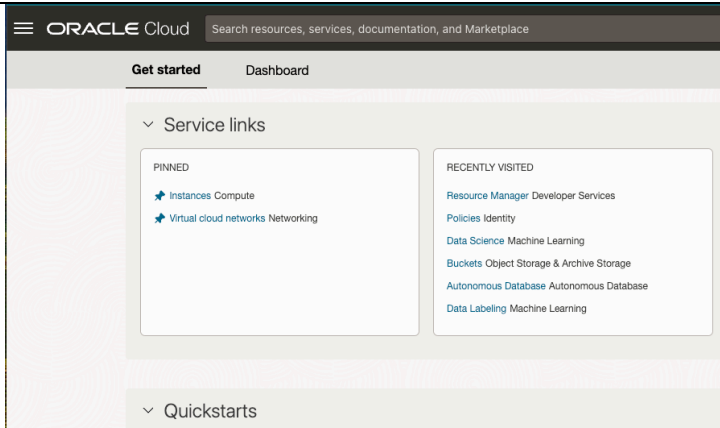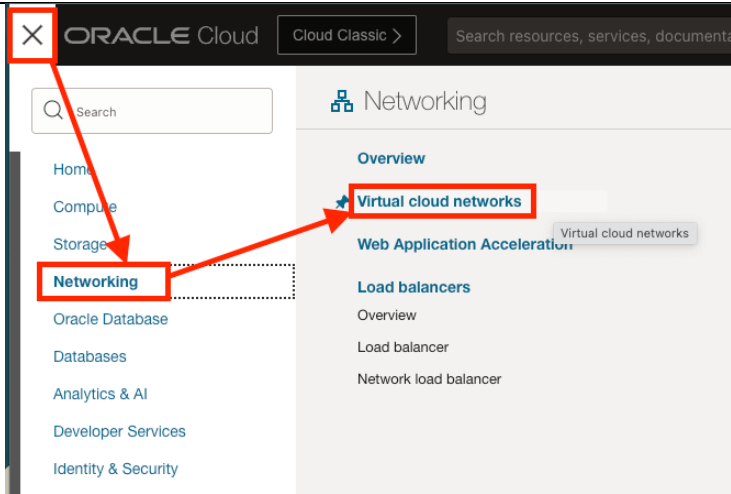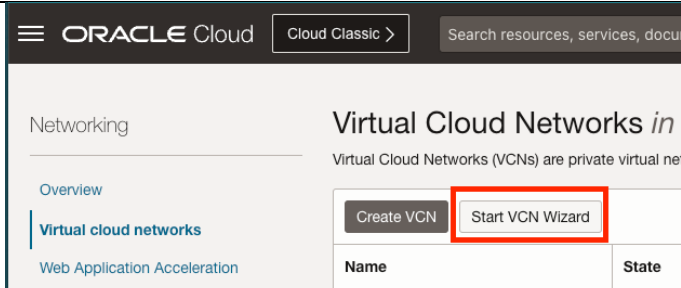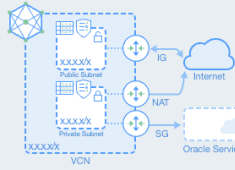# Provisioning Oracle Base DB Service 23ai

Description: The purpose of this guide is to provision Oracle Base Database Service 23ai.

Prerequisites: Privileges to manage all resources within a compartment.

Step	Description
Login to your OCI Cloud Console at **cloud.oracle.com**	
First, we will create a network to host our Oracle DB 23ai Deployment. Login to **cloud**.**oracle.com** From Menu navigate to **Networking > Virtual Cloud Networks.**	
Click **Start VCN Wizard**.	

Select **Create VCN with Internet Connectivity.** Click **Start VCN Wizard.**	
Give your VCN a **name** and select the **compartment**.	
Enter an **IP CIDR Block.** Select use **DNS hostnames in this VCN.** Select the **IPv4 CIDR block** for both your **public** and **private subnets.** **Click Next.**	

Review all the VCN configurations and click on **Create**.	
Once created, click on your **Public Subnet.**	
Then select your **Security List**.	
Click **Add Ingress Rule.**	

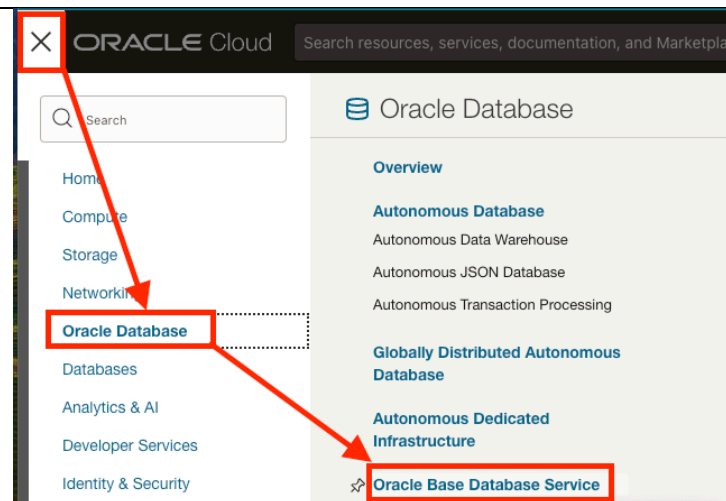|	
Configure the source CIDR how you see fit. For this demo I have gone for the following: • Source CIDR: 0.0.0.0/0 • IP Protocol: TCP • Destination Port: 1521 **Click Add.**	**Ingress Rule 1** Allows TCP traffic 1521 ☐ Stateless ⓘ Source Type: CIDR Source CIDR: 0.0.0.0/0 IP Protocol ⓘ: TCP Specified IP addresses: 0.0.0.0-255.255.255.255 (4,294,967,296 IP addresses) Source Port Range *Optional* ⓘ: All Destination Port Range *Optional* ⓘ: 1521 Examples: 80, 20-22 Examples: 80, 20-22 Description *Optional* Access to Oracle Database Maximum 255 characters
Next, we will create our DBCS Instance. **Navigate to OCI Menu > Oracle Database > Oracle Base Database Service.**	
Select **Create DB system**.	

Select: **Compartment** **DB System Name** **Availability Domain** **Compute Shape** – I have gone for Flex Shape with 4 OCPUs and 64 GB Memory.	Provide basic information for the DB system Select a compartment Name your DB system datascience-vector-dbcs Select an availability domain **AD-1** tVMZ:EU-FRANKFURT-1-AD-1 ✓ AD-2 tVMZ:EU-FRANKFURT-1-AD-2 AD-3 tVMZ:EU-FRANKFURT-1-AD-3 **Configure shape** A shape determines the options for resources such as node count, core count, and storage. For information about shapes, see Shapes for Virtual Machine DB Systems. AMD **VM.Standard.E4.Flex** 4 core OCPU, 64 GB memory, 4 Gbps Network Bandwidth, 64K IOPS [Change shape]
Select: **Storage** – I went for 256 GB **Nodes** – Single Node **DB Edition**- Enterprise Edition High Performance.	**Configure storage** You can choose the storage management software type (Grid Infrastructure or Logical Volume Manager), the performance setting and specify how much storage to provision. **Oracle Grid Infrastructure** Block Volume Performance: Higher performance [Change storage] 256 GB available storage, 19.2K IOPS **Configure the DB system** Total node count 1 Oracle Database software edition Enterprise Edition High Performance Total storage (GB) *Read-only* ⓘ 712 Total storage is determined by the available storage value you select. **Theoretical max IOPS:** 19.2K **IOPS limiting factor:** Storage
Generate and **save** your SSH Keys.	**Add SSH keys** You can access the services of your system's databases by using SSH tunneling. When you connect to the system, you will provide the associated private key. ● Generate SSH key pair ○ Upload SSH key files ○ Paste SSH keys ⓘ Download the private key so that you can connect to the database system using SSH. It will not be shown again. ⤓ Save private key ⤓ Save public key
Choose your Licence Type.	Choose a license type **License included** Subscribe to new Oracle Database software licenses and the Database service. **Bring Your Own License (BYOL)** Bring my organization's Oracle Database software licenses to the Database service. Learn more. ✓

Select the VCN and Public Subnet that we created earlier. **Give a hostname prefix**. I used the same name as I gave to my database system. **Click Next.**	**Specify the network information** Virtual cloud network in ▮▮▮▮▮ (Change compartment) ▮▮▮-vcn Client subnet in **DataScience** (Change compartment) public subnet-▮▮▮▮ Do not use a subnet that overlaps with 192.168.16.16/28, which is used by the Oracle Clusterware private interconnect on the database instance. ☐ Use network security groups to control traffic ⓘ Hostname prefix ⓘ datascience-vector-dbcs Host domain name *Read-only* ▮▮▮▮▮▮ This value is determined by the client subnet. Host and domain URL *Read-only* ▮▮▮▮▮▮ This value is determined by the hostname prefix and the host domain name. Private IP address *Optional* Enter a private IP address within the CIDR 10.0.0.0/24.
Give the Database a **Name** and **Unique Name Suffix**, this will auto generate the **Database Unique Name**. Select the Database Version as **Oracle Database 23ai**.	Database name ▮▮▮▮ Database unique name suffix *Optional* ⓘ ▮▮▮▮ Database unique name *Read-only* ▮▮▮▮ Database image Oracle Database 23ai
Define the **password** for the admin user **sys.**	**Create administrator credentials** Username *Read-only* sys Password ⓘ •••••••••••••••• Confirm password •••••••••••••••• ☑ Use the administrator password for the TDE wallet ⓘ If you are going to use customer-managed keys stored in a vault, the TDE wallet is not applicable.

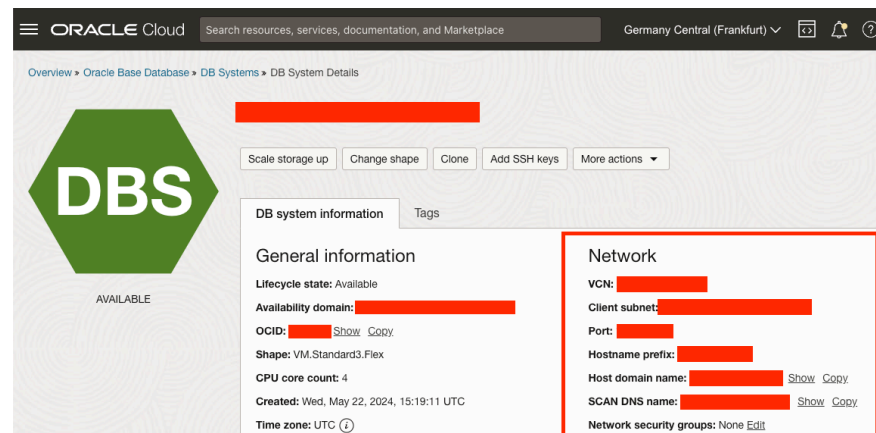|	
We will turn off Automatic Backups for this tutorial. Feel free to enable and configure if required. **Click Create DB System.**	
This might take about an hour to provision. Once done the Database will become **Available**. Make note of the Network information on the right-hand side. We will need this information later.	
Scroll down on the Database System Page and **Click on Nodes** to view the **IP Address**. Make a note of this as we will use it later.	
Click on Databases and **select our Database** we created.	

Scroll down and select **Pluggable Databases** and **select the Pluggable database displayed**.	
Make note of the **Pluggable Database Name** at the top and then select **PDB Connection**.	
Make note of the **Easy Connection String** as you will use this later to connect to the Oracle DB.	