Compute: Create a Capacity Reservation and Launch Instances

Lab 08-1 Practices

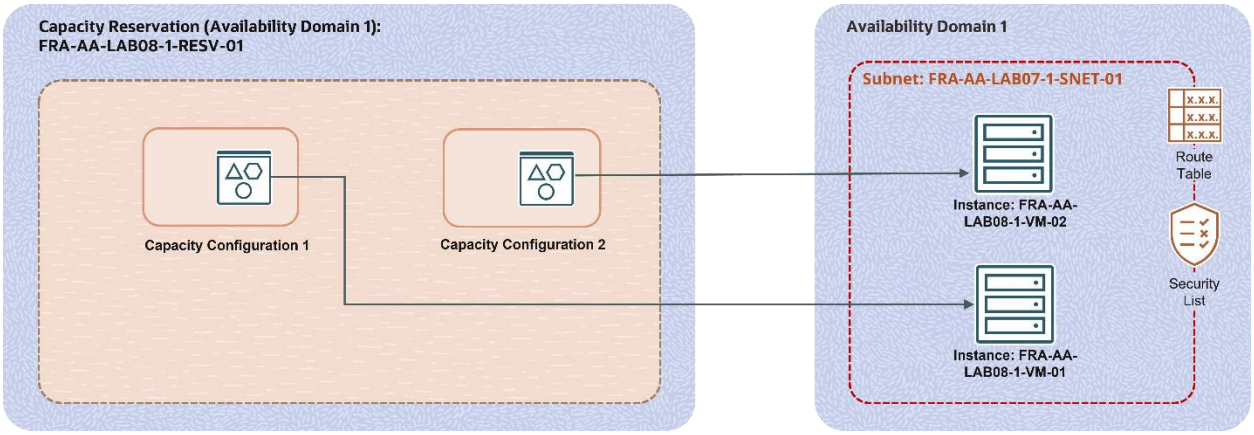
Get Started

Overview

The capacity reservations allow you to reserve compute capacity in advance and use this capacity when you create instances against the reservation. There is no minimum time or size commitment. You can create, modify, and terminate your capacity reservation at any time.

In this lab, you will:

- Create a Virtual Cloud Network and a subnet
- Create a capacity reservation
- Add a capacity configuration
- Create instances in a capacity reservation.
- Move an instance out of a capacity reservation.
- Add an instance to a capacity reservation



Prerequisites

- You must have access to the OCI Console.

Assumptions

- You must be familiar with navigating the OCI Console.
- In this lab, **Germany Central (Frankfurt)** is considered as your region.

Create a Virtual Cloud Network and a Subnet

In this practice, you will create a Virtual Cloud Network (VCN) and a subnet.

Tasks

1. Sign in to your Oracle Cloud Infrastructure (OCI) Console.
2. From the **Main Menu**, under **Networking**, select **Virtual Cloud Networks.**
3. Click **Create VCN.**
4. In the **Create a Virtual Cloud Network** dialog box, populate the following information:
    a. **Name**: FRA-AA-LAB08-1-VCN-01.
    b. **Create In Compartment**: <*your compartment*>
    c. **IPv4 CIDR Blocks:** 10.0.0.0/16 (Press **Enter** to add.)
5. Keep all the other options default and click **Create VCN**.

    You can see that the VCN is created successfully.
6. Click **FRA-AA-LAB08-1-VCN-01** VCN to view the details page and click **Create Subnet**.
7. In the **Create Subnet** dialog box, populate the following information:
    a. **Name**: FRA-AA-LAB08-1-SNET-01
    b. **Create In Compartment**: <*your compartment*>
    c. **Subnet Type**: Regional (Recommended)
    d. **IPv4 CIDR Blocks**: 10.0.1.0/24.
    e. **Subnet Access**: Public Subnet
8. Keep all the other options default and click **Create Subnet.**

    You can see that the subnet is created successfully, and the state is Available.

Create a Capacity Reservation

In this practice, you will create a capacity reservation.

Tasks

1. From the **Main Menu**, under **Compute**, click **Capacity Reservations**.
2. Click **Create capacity reservation**.
3. In the **Create capacity reservation** dialog box, populate the following information in the **Add basic details** section:
    a. **Name**: FRA-AA-LAB08-1-RESV-01
    b. **Create in compartment:** <*your compartment*>
    c. **Availability domain:** <*first availability domain*>

    Note: Do not select the **Make this reservation the default for this availability domain** check box.
4. Click **Next.**
5. In the **Add capacity configurations** dialog box, populate the following information:
    a. **Fault Domain**: First available
    b. **Shape:** VM.Standard.A1.Flex (1 OCPU, 6 GB Memory)
    c. **Count:** 1
6. Click **Next.**
7. Review the capacity reservation and capacity configuration information.
8. Click **Create.**

You can now see that the capacity reservation is created successfully.

Add a Capacity Configuration

In this practice, you will add a capacity configuration to an existing capacity reservation.

Tasks

1. From the **Main Menu**, under **Compute**, select **Capacity Reservations**.
2. Click the capacity reservation **FRA-AA-LAB08-1-RESV-01**.
3. Click **Add capacity configuration**.
4. In the **Add capacity configurations** dialog box, populate the following information:
    a. **Fault Domain**: First available
    b. **Shape:** VM.Standard.E4.Flex (1 OCPU, 8 GB Memory)
    c. **Count:** 1
5. Click **Add configuration**.

    You can now see two capacity configurations in the capacity reservation.

Create Instances in a Capacity Reservation

In this practice, you will create instances in a capacity reservation.

Tasks

1. From the **Main Menu**, under **Compute**, select **Capacity Reservations**.
2. Click the capacity reservation **FRA-AA-LAB08-1-RESV-01.**
3. Under **Resources** in the left navigation panel, click **Created instances.**
4. Click **Create instance** and populate the following information:
    a. **Name:** FRA-AA-LAB08-1-VM-01
    b. **Create in compartment:** <*your compartment*>
    c. **Placement (Availability domain):** AD 1
    d. **Capacity type:** Capacity reservation
    e. **Capacity reservation:** FRA-AA-LAB08-1-RESV-01
    f. **Fault Domain:** Let Oracle choose the best fault domain.
    g. **Image**: Oracle Linux 8
    h. **Shape:** VM.Standard.A1.Flex (1 OCPU, 6GB Memory)

    Note: If the capacity reservation doesn't have a configuration for a shape, you will see this icon in front of the Shape name.

    i. **Networking**: FRA-AA-LAB08-1-VCN-01
    j. **Subnet**: FRA-AA-LAB08-1-SNET-01 (regional)
    k. **Public IP address**: Do not assign a public IPv4 address.
    l. **Add SSH keys**: No SSH keys

    Note: Keep the default option for **Boot volume**.

5. Click **Create**.

   In a couple of minutes, you can see that the instance is created successfully, and the state is Running.

6. Navigate back to the **Capacity Reservations** page under **Compute** from the **Main Menu**.

7. Click the capacity reservation **FRA-AA-LAB08-1-RESV-01**.

   Under **Capacity configurations**, you can see that the **Used capacity** for VM.Standard.A1.Flex Instance type is 1, and the **Reserved capacity** is 1.

8. Repeat steps 1 through 5 to create another instance with the following changes:

   a. **Name:** FRA-AA-LAB08-1-VM-02

   b. **Shape:** VM.Standard.E4.Flex (1 OCPU, 8 GB Memory)

      For changing Shape, click **Change Shape** and click **AMD** under **Shape series.** Then select **VM.Standard.E4.Flex**

9. Populate all other fields as per Step 4 and click **Create**.

10. Navigate back to the **Capacity Reservations** page from the **Main Menu**.

11. Click the capacity reservation **FRA-AA-LAB08-1-RESV-01**.

    Under **Capacity configurations**, you can see that the **Used capacity** for VM.Standard.E4.Flex Instance type is 1. The **Reserved capacity** is 1.

Move an Instance out of a Capacity Reservation

In this practice, you will move an instance out of a capacity reservation.

Tasks

1. From the **Main Menu**, under **Compute**, select **Instances**.
2. Click the instance **FRA-AA-LAB08-1-VM-02**.
3. From the **More Actions** drop-down menu, select **Edit.**
4. Click **Show advanced options**, and then click the **Placement** tab.
5. Deselect the **Apply a capacity reservation** check box.
6. Click **Save changes.**
7. Navigate back to the **Main Menu** and click **Compute**. Under **Compute**, click **Capacity Reservations**.
8. Click the capacity reservation **FRA-AA-LAB08-1-RESV-01**.
9. Under **Capacity configurations**, you can see that the **Used capacity** for VM.Standard.E4.Flex Instance type is 0.

Adding an Instance to a Capacity Reservation

In this practice, you will add an instance to a capacity reservation.

Tasks

1. From the **Main Menu**, under **Compute**, select **Instances**.
2. Click the instance **FRA-AA-LAB08-1-VM-02**.
3. From the **More Actions** drop-down menu, select **Edit.**
4. Click **Show advanced options**, and then click the **Placement** tab.
5. Select the **Apply a capacity reservation** check box.
6. Select **FRA-AA-LAB08-1-RESV-01** under Capacity reservation.
7. Click **Save changes.**
8. Navigate back to the **Main Menu** and select **Compute**. Under **Compute**, click **Capacity Reservations**.
9. Click the capacity reservation **FRA-AA-LAB08-1-RESV-01**.
10. Under **Capacity configurations**, you can see that the **Used capacity** for VM.Standard.E4.Flex Instance type is 1.