

Oracle Autonomous Data Warehouse and Oracle Analytics Cloud Hands on Lab Prerequisites - Guide



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1 LAB INTRODUCTION

In this hands-on lab, you will get first-hand experience of using Oracle Cloud, Oracle Autonomous Database (ADB) and Oracle Analytics Cloud (OAC).

Oracle Autonomous Database (ADB) delivers a self-driving, self-securing, self-repairing database service that can instantly scale to meet demands. The service supports two workload types:

- Oracle Autonomous Data Warehouse (ADW) provides an autonomous warehousing environment, associated with fast query performance.
- Oracle Autonomous Transaction Processing (ATP) provides an autonomous online transaction processing and mixed workload environment.

For the purpose of this lab, we will use ADW so all the steps will be related to this database service.

Oracle Analytics Cloud (OAC) is a scalable and secure public cloud service that provides a full set of capabilities to explore and perform collaborative analytics for you, your workgroup, and your enterprise.

With Oracle Analytics Cloud, you also get flexible service management capabilities, including fast setup, easy scaling and patching, and automated lifecycle management.

To run the lab, you will need an Oracle Free Tier Account, with a provisioned ADW instance and a provisioned OAC instance. This pre-requisite guide will take you step-by-step through how to get the account and set the instance up, to be ready to start the lab.

1.1 LAB TECHNICAL REQUIREMENT

This lab requires you to install the following desktop applications so that you can complete this hands-on lab:

- PDF File reader.
- A web browser. The lab guide was created using Google Chrome.

As you will be registering for services in Oracle Cloud, you will also need:

- Access to the email account used to register for the workshop.
- A cell phone to receive an SMS for account verification processes.



2 GETTING STARTED

This section of the lab will take you through all the required preparation steps. You will:

- Lab 000 - Creating and connecting to your Oracle Cloud Free Tier account.
- Lab 100 - Provisioning your Autonomous Database instance.
- Lab 200 - Provisioning your Oracle Analytics Cloud (OAC) instance.

2.1 LAB 000 - CREATING AND CONNECTING TO YOUR ORACLE CLOUD FREE TIER ACCOUNT

During this workshop, you will use an Oracle Cloud Free Tier Account to run the Lab exercises. This account will give you access to the Always Free resources in Oracle Cloud Free Tier and a limited time trial period with an expanded set of services. Once this period elapses, you can continue to use the Always Free resources with no interruptions.

Always Free and Free Trial instances can be seamlessly upgraded to pay at any time. Existing Oracle Cloud customers have access to Always Free services automatically—no new sign up required.

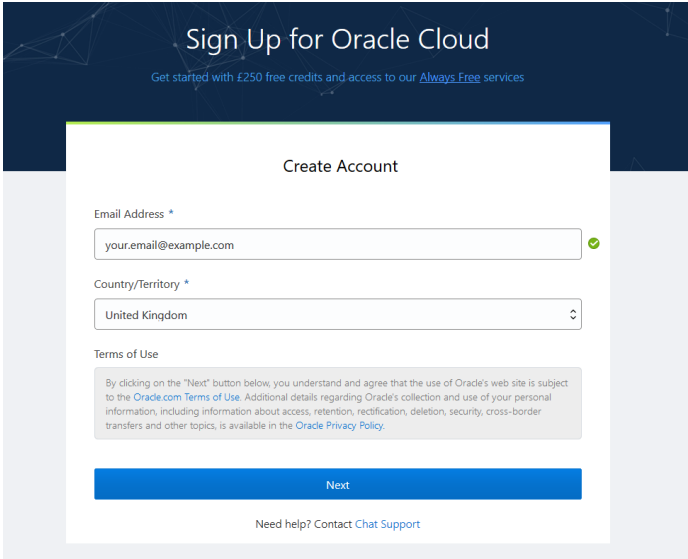
To learn more about Oracle Cloud Always Free and Free Trial account check the following link:

<https://www.oracle.com/cloud/free/#always-free>

As part of your sign up to this lab, you will have been provided a link to sign up to Oracle Cloud Free Tier. Please make sure you:

- Use the following URL - [Sign Up for Oracle Cloud](#)
- Use a **personal email address** that you will use during all the workshop process.

On the sign up page, enter your email address, select your Country/Territory and click "Next".



Sign Up for Oracle Cloud

Get started with £250 free credits and access to our [Always Free](#) services

Create Account

Email Address *

your.email@example.com

Country/Territory *

United Kingdom

Terms of Use

By clicking on the "Next" button below, you understand and agree that the use of Oracle's web site is subject to the [Oracle.com Terms of Use](#). Additional details regarding Oracle's collection and use of your personal information, including information about access, retention, rectification, deletion, security, cross-border transfers and other topics, is available in the [Oracle Privacy Policy](#).

Next

Need help? Contact [Chat Support](#)



On the "Enter Account Details" page you will be asked for **Account Type**, please select *Company Use* or *Personal Use* considering the purpose of this cloud account.

You will also be asked for the Cloud Account Name (also known as Tenancy Name). This will uniquely identify your cloud account and will be visible in your URL later, so please choose wisely.

Finally, you will be asked also for the "Home Region". This is the location of the physical datacenter. You should select a datacenter that is geographically close to you and supports the required services. For this lab, select either UK South (London) or Germany Central (Frankfurt). This is because Oracle Analytics Cloud (OAC) is currently only available in UK South (London) and Germany Central (Frankfurt). You can review which services are available in each region using this page:

<https://www.oracle.com/uk/cloud/data-regions.html#emea>

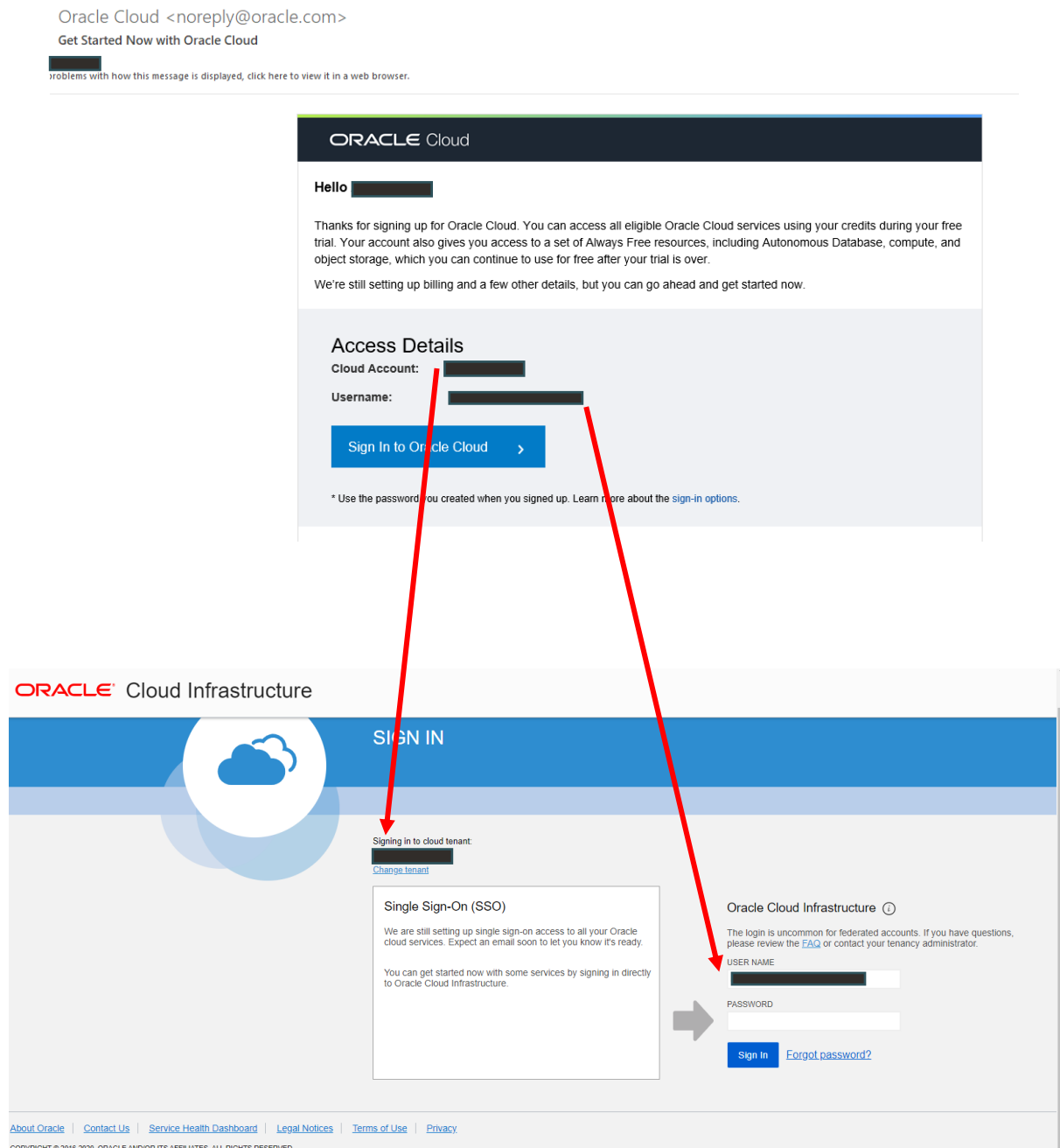
Complete all other mandatory fields on the form (indicated with a *) and select **next**. **Verify Your Mobile Phone Number.**

You will be prompted to enter the code sent to your cell phone.



At the end of this process, you will receive an email titled "Get Started Now with Oracle Cloud". This will contain all the information you need to sign into your cloud account and include a link to the login page for your region.

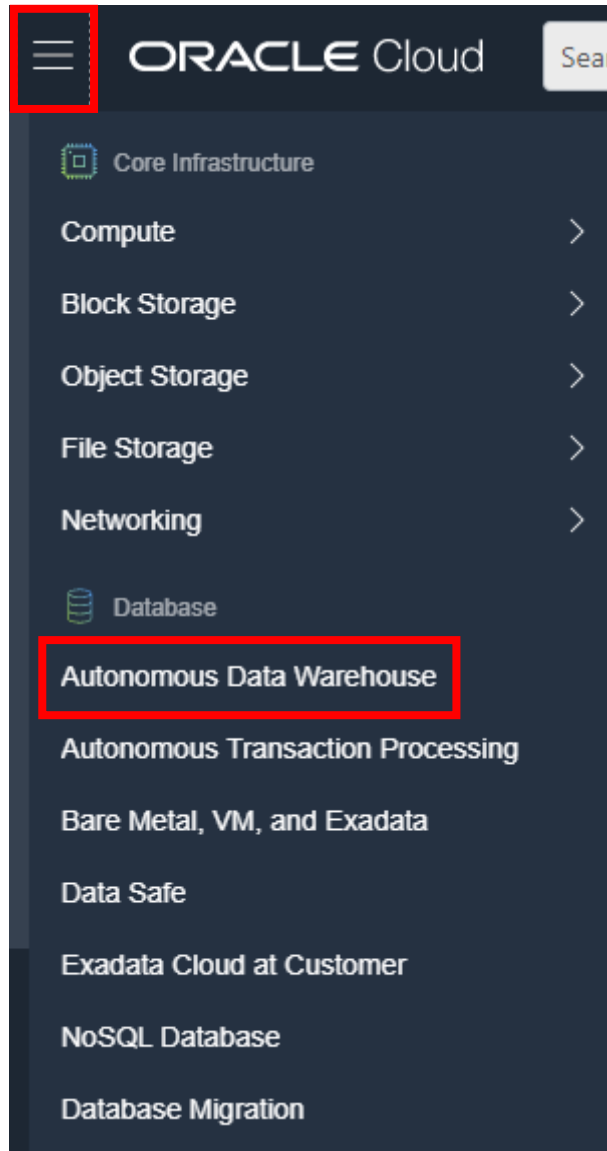
To login to your cloud account, use the same email address that you used for registration and the password provided in the email. You will be prompted to set a new, more memorable password.



2.2 LAB 100 - PROVISIONING YOUR AUTONOMOUS DATABASE INSTANCE

Click on the hamburger **MENU** link at the upper left corner of the page.

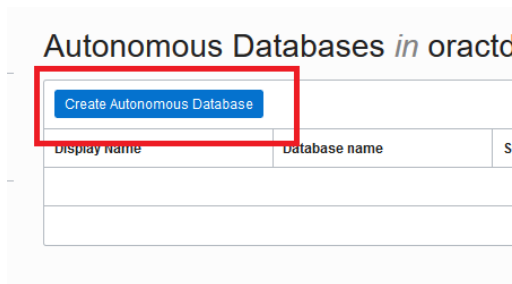
This will produce a drop-down menu, where you should select **Autonomous Data Warehouse**.



This will take you to the management console page.



To create a new instance, click the blue **Create Autonomous Database** button.



The screenshot shows the 'Autonomous Databases in Oracle Cloud' interface. A blue button labeled 'Create Autonomous Database' is highlighted with a red rectangular box. Below the button, there are input fields for 'Display name' and 'Database name', and a 'S' button on the right.

Enter the required information and click the **Create Autonomous Database** button at the bottom of the form. For the purposes of this lab, use the information below:

Compartment: Verify that a compartment (*<tenancy_name>*) is selected.

By default, any OCI tenancy has a default **root** compartment, named after the tenancy itself. The tenancy administrator (default root compartment administrator) is any user who is a member of the default Administrators group. For the lab purpose, you can use **root**.

You can learn more about compartments in this link: <https://docs.cloud.oracle.com/en-us/iaas/Content/Identity/Tasks/managingcompartments.htm>

Display Name: Enter the display name for your ADW Instance. For this demo purpose, I have called my database **ADW_OAC**.

Database Name: Enter any database name you choose that fits the requirements for ADW. The database name must consist of letters and numbers only, starting with a letter. The maximum length is 14 characters. You can leave the name provided. That field is not a mandatory one.

Workload Type: Autonomous Data Warehouse

Deployment Type: Shared Infrastructure

Always Free: On

We have selected Always Free Tier On to learn more about this option check the following link:

<https://www.oracle.com/uk/cloud/free/#always-free>



Create Autonomous Database

Provide basic information for the Autonomous Database

Compartment

ocwca (root/privates)

Display name

ADW_OAD

A user-friendly name to help you easily identify the resource. Display name can be changed at any time.

Database name

The name must contain only letters and numbers, starting with a letter. Maximum of 14 characters.

Choose a workload type

Data Warehouse

Configures the database for a decision support or data warehouse workload, with a bias towards large data scanning operations.

Transaction Processing

Configures the database for a transactional workload, with a bias towards high volumes of random data access.

Choose a deployment type

Shared Infrastructure

Run Autonomous Database on shared Exadata infrastructure.

Dedicated Infrastructure

Run Autonomous Database on dedicated Exadata infrastructure.

Configure the database

Always Free

Show only Always Free configuration options



If your Always Free Autonomous Database has no activity for 7 consecutive days, the database will be automatically stopped. Your data will be preserved, and you can restart the database to continue using it. If the database remains stopped for 3 months, it will be reclaimed. [Learn more](#)

Choose Database version: 19c

CPU Count: 1

Storage Capacity (TB): 0.02

CPU Count and Storage Capacity (TB) are defined by default for the Always Free Tier.

Auto scaling: Off

Choose database version

19c

OCPU count

1

Always Free Autonomous Databases can utilize up to 1 core. The CPU core count cannot be adjusted.

Storage (TB)

0.02

Always Free Autonomous Databases can utilize up to 0.02 TB (20 GB) of storage. The storage size cannot be adjusted.

☐ Auto scaling

Allows system to use up to three times the provisioned number of cores as the workload increases. [Learn more](#)

Under **Create administration credentials** section:

Administrator Password: Enter any password you wish to use noting the specific requirements imposed by ADW. A suggested password for this lab is ADWwelcome-1234

Reminder: Note your password in a safe location as this cannot be reset.



Under **Choose network access** section:

Leave **'Allow secure access from everywhere'**: *On*

Select **Configure access control rules**: *Off*

The screenshot shows the 'Create administrator credentials' section with fields for Username (READ-ONLY, ADMIN), Password, and Confirm password. Below this is the 'Choose network access' section with two radio buttons: 'Allow secure access from everywhere' (selected) and 'Virtual cloud network'. There is also a checkbox for 'Configure access control rules' which is unchecked.

Under **Choose a license type** section, choose **License Type**: *License Included*.

When you have completed the required fields, scroll down and click on the blue **Create Autonomous Database** button at the bottom of the form:

The screenshot shows the 'Choose a license type' section with two options: 'Bring Your Own License (BYOL)' and 'License Included' (selected). At the bottom, there is a blue 'Create Autonomous Database' button highlighted with a red box, and a 'Cancel' button next to it.

The Autonomous Database Details page will show information about your new instance. You should notice the various menu buttons that help you manage your new instance – because the instance is currently being provisioned all the management buttons are greyed out.

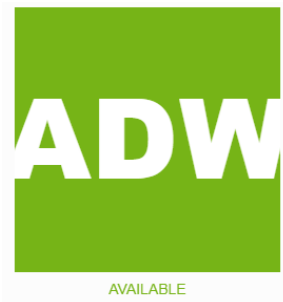
The screenshot shows the 'Autonomous Database Details' page for 'ADW_OAC'. The page has a header with 'ADW' and 'PROVISIONING...'. Below this is a navigation bar with buttons: 'DB Connection', 'Performance Hub', 'Service Console', 'Scale Up/Down', and 'More Actions'. The main content area is divided into two tabs: 'Autonomous Database Information' (selected) and 'Tools'. The 'Autonomous Database Information' tab shows 'General Information' and 'Infrastructure' sections. The 'General Information' section includes fields for Database Name, Workload Type, Compartment, OCID, Created, OCPU Count, Storage, License Type, Database Version, Auto Scaling, Lifecycle State, and Instance Type. The 'Infrastructure' section includes fields for Dedicated Infrastructure, Backup, Last Automatic Backup, Network, Access Type, Access Control List, Data Safe, and Status.



A summary of your instance status is shown in the large box on the left. In this example, the colour is amber and the status is **Provisioning**.



After a short while, the status will change to **Available** and the “ADW” box will change colour to green:



Once the Lifecycle Status is **Available**, additional summary information about your instance is populated, including workload type and other details.

The provisioning process should take under 5 minutes.

After having the Autonomous Database instance created and available, you can get a message window asking you to upgrade from 18c to 19c if you have selected 18c as a database version during the provisioning. You can upgrade the database release if you wish after the hands-on session, otherwise the upgrade process can take a few minutes and you can miss a few exercises during the session.

You can now proceed onto running the next labs.



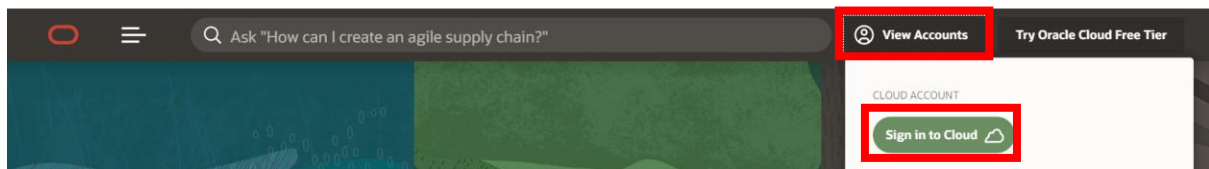
2.3 LAB 200 - PROVISIONING YOUR ORACLE ANALYTICS CLOUD (OAC) INSTANCE

There are currently two methods of deploying OAC instances. This section describes the process of deploying Oracle Analytics Cloud instances on Oracle Cloud Infrastructure Gen 2, which is the default for newly provisioned accounts in EMEA and US. If you want to deploy using the legacy method or Oracle Cloud Infrastructure Gen 1, please see Appendix A.

Your Oracle Cloud Free Tier account will use the Oracle Cloud Free Trial credits while this instance is provisioned, as Oracle Analytics Cloud is not part of the Always Free cloud services.

Provisioning an Oracle Analytics Cloud instance can take over 40 minutes.

Return to the Oracle Cloud Infrastructure Console accessing from **Oracle Home Page** (oracle.com) and sign in into your cloud account. Click in **View Account** and **Sign in to Cloud**.

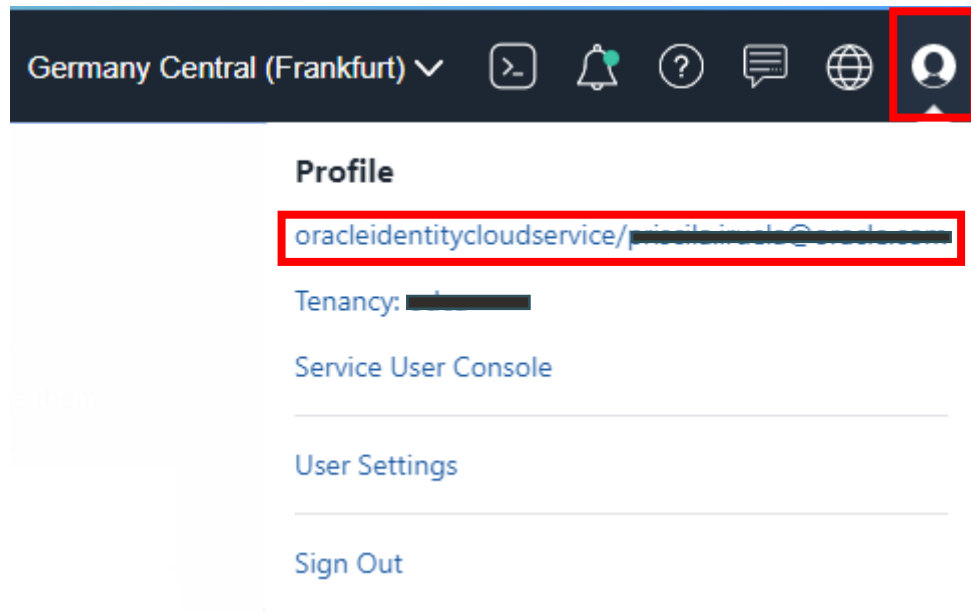


Click on the menu icon on the left. Verify that you are signed in as a Single Sign On (Federated user) user by selecting the **Profile** icon in the top right hand side of your screen. If your username is shown as:

`oracleidentitycloudservice / <your username>`



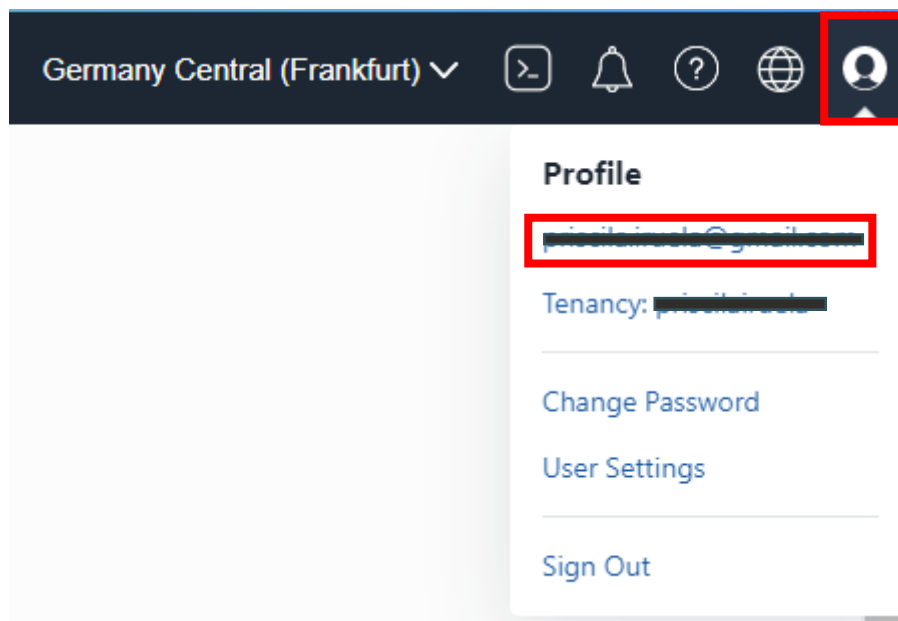
Then you are connected as a Single Sign On user.



If your username is shown as:

<your username>

Then you are not signed in as an Oracle Cloud Infrastructure user.



If your user does not contain the identity provider – (oracleidentitycloudprovider), please logout and select to authenticate using Single Sign On.

SIGN IN

You are now logged out of the Oracle Cloud Infrastructure Console.

Signing in to cloud tenant:
[redacted]
[Change tenant](#)

Single Sign-On (SSO)

We have detected that your tenancy has been federated to another Identity Provider.
Select your Identity Provider below.

IDENTITY PROVIDER
oracleidentitycloudservice ▼

Continue

Oracle Cloud Infrastructure

The login is uncommon for federated accounts. If you have questions, please review the [FAQ](#) or contact your tenancy administrator.

or

USER NAME
[redacted]

PASSWORD
[redacted]

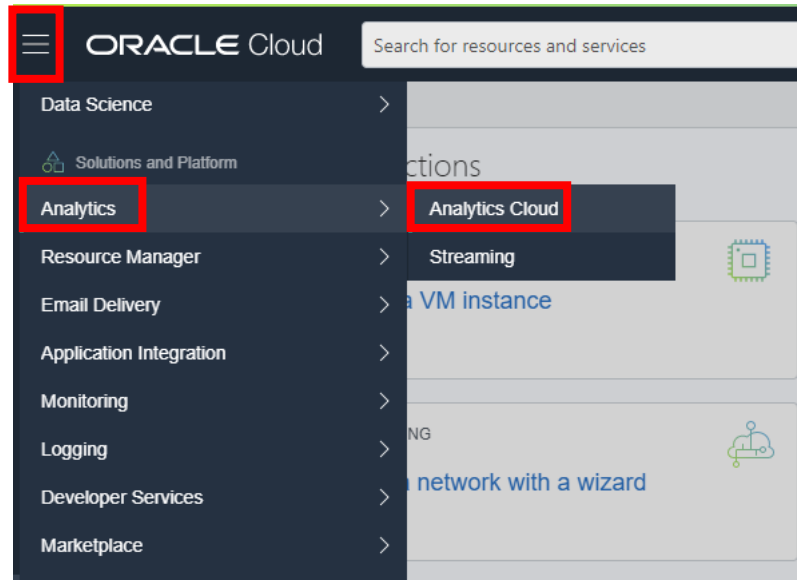
Sign In [Forgot password?](#)

To be capable of using Oracle Analytics Cloud we need to be Sign-On as a Single Sign-On (SSO) user.

More information about federated users: <https://docs.cloud.oracle.com/en-us/iaas/Content/Identity/Tasks/usingscim.htm>



Return to the *Home Console Page* and navigate to **Analytics** under **Solutions and Platform** section and then **Analytics Cloud**.



Note: You must be connected as a Single Sign On (Federated user) user to a tenancy, which has available cloud credits to see this menu item. Local OCI users are not able to do this.

Select **Create Instance**.

Complete the form using the following information:

Compartment: Select a valid compartment in your tenancy.

Instance Name: WORKSHOPADWOAC

Description: <optional>

Feature Set: Enterprise Analytics (important)

Capacity: 1 - Non Production

License Type: "Subscribe to a new Analytics Cloud software license and the Analytics Cloud."
(You will use this service as part of the free Oracle Cloud trial that you requested for this workshop).



Select **Create**.

Analytics in **COMPARTMENT** Create Instance [Help](#) [Close](#)

Create Instance

Your account may have additional instances.

Name

COMPARTMENT

INSTANCE NAME **WORKSHOPADWOAC**

DESCRIPTION **Analytics instance for the cloud**

FEATURE SET **Enterprise Analytics**

CAPACITY **1 OCPU** **1 - non production**

LICENSE TYPE **SUBSCRIBE TO A NEW ANALYTICS CLOUD SOFTWARE LICENSE AND THE ANALYTICS CLOUD**

Tagging is a metadata system that allows you to organize and track resources within your tenancy. Tags are composed of keys and values that can be attached to resources. [Learn more about tagging](#)

TAG NAMESPACE TAG KEY VALUE

None (add a free-form tag)

Create + Additional Tag

On the Confirmation screen, select **Create**.

The Analytics instance page will be displayed with a status of *CREATING*.

Analytics > Analytics Instances > WORKSHOPADWOAC Details

WORKSHOPADWOAC

Analytics instance for the cloud

[Open URL](#) [Start](#) [Stop](#) [Scale Up/Down](#) [More Actions](#)

Instance Information Tags

Basic Information

Created: Wed, Apr 29, 2020, 08:50:11 UTC

Compartment: **COMPARTMENT**

OCID: ...wvdyv5u3gq [Show](#) [Copy](#)

Capacity: 1 OCPU

Feature Set: Enterprise Analytics

License Type: License Included

Activity Log

Action	Status
CREATE_ANALYTICS_INSTANCE	IN_PROGRESS



Reminder: Provisioning an Oracle Analytics Cloud instance can take over 40 minutes.

The Analytics instance page will be displayed with a status of *ACTIVE*.

Analytics » Analytics Instances » WORKSHOPADWOAC Details

WORKSHOPADWOAC

Analytics instance for the cloud

[Open URL](#) [Start](#) [Stop](#) [Scale Up/Down](#) [More Actions](#) ▼

Instance Information Tags

Basic Information

Created: Wed, Apr 29, 2020, 08:50:11 UTC
Compartment: XXXXXXXXXX
OCID: ...vwdyv5u3gq [Show](#) [Copy](#)
Capacity: 1 OCPU
Feature Set: Enterprise Analytics
License Type: License Included

Resources

[Activity Log](#)

Activity Log

Action	Status
CREATE_ANALYTICS_INSTANCE	SUCCEEDED

You can now proceed onto running the labs.



APPENDIX A - PROVISIONING AN ORACLE ANALYTICS CLOUD INSTANCE

If your Oracle Cloud account started before 14 February 2020 (USA) or 2nd March 2020 (EMEA), you have the option to deploy Oracle Analytics Cloud Instances using a different method. This is documented below for completeness, but it is expected that people running the workshop to use the Oracle Analytics Cloud on Oracle Cloud Infrastructure Gen 2, which is documented in the main body of the document.

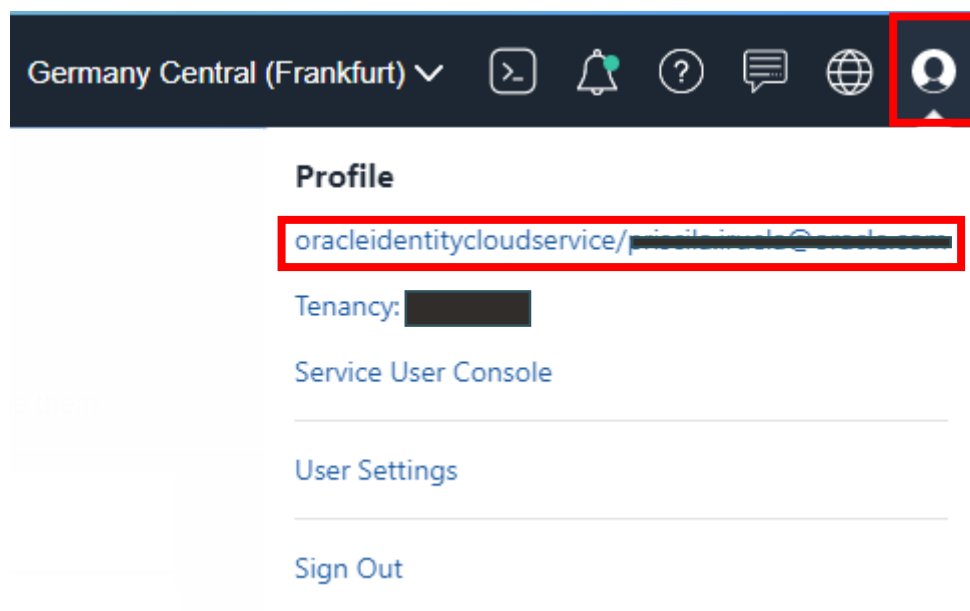
Your Oracle Cloud Free Tier account will use the Oracle Cloud Free Trial credits while this instance is provisioned, as Oracle Analytics Cloud is not part of the Always Free cloud services.

Provisioning an Oracle Analytics Cloud instance can take over 40 minutes. If you plan to run Lab 300 during the classroom session, then you can provision the instance now and have it ready for use later.

Return to the Oracle Cloud Infrastructure console, click on the menu icon on the left. Verify that you are signed in as a Single Sign On (idcs) user by selecting the **Profile** icon in the top right hand side of your screen. If your username is shown as:

`oracleidentitycloudservice / <your username>`

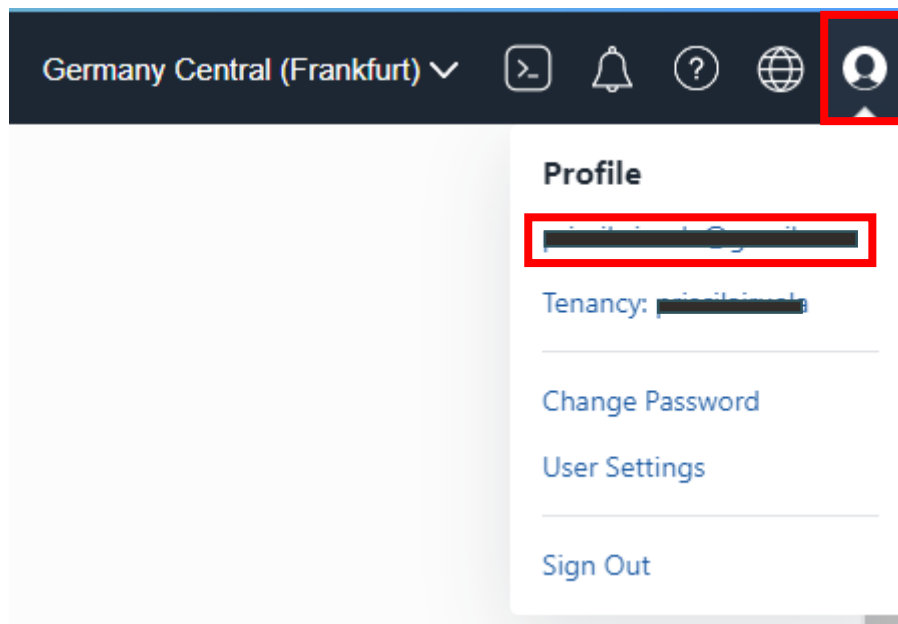
Then you are connected as a Single Sign On user.



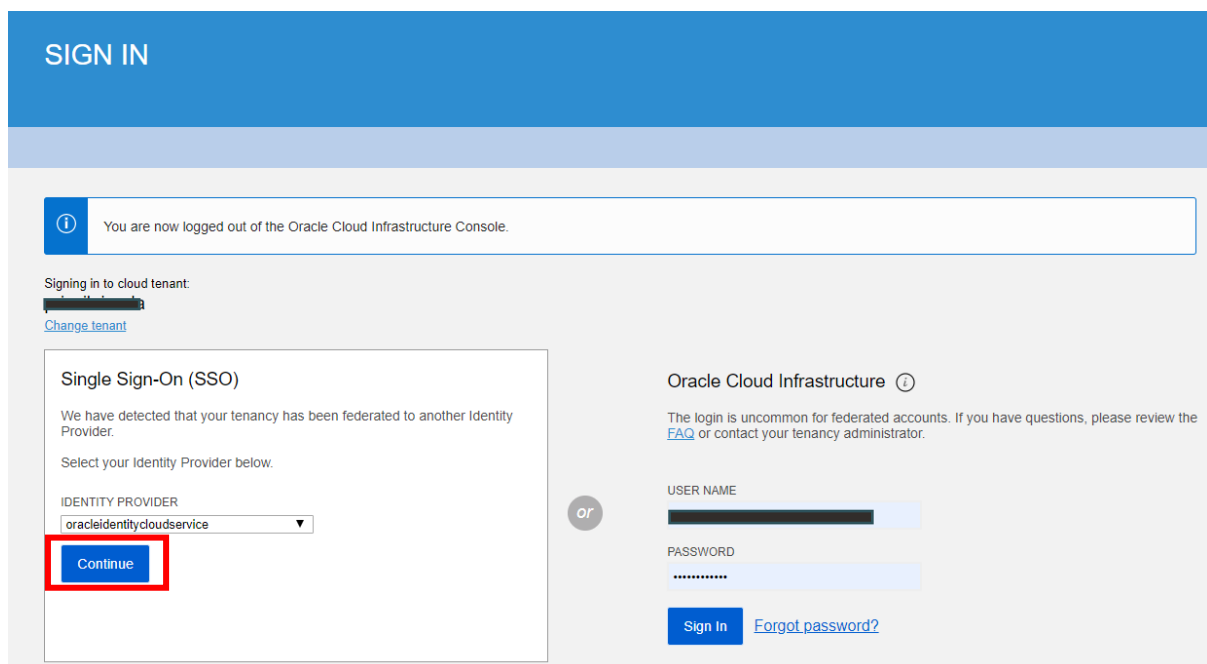
If your username is shown as:

<your username>

Then you are not signed in as an Oracle Cloud Infrastructure user.



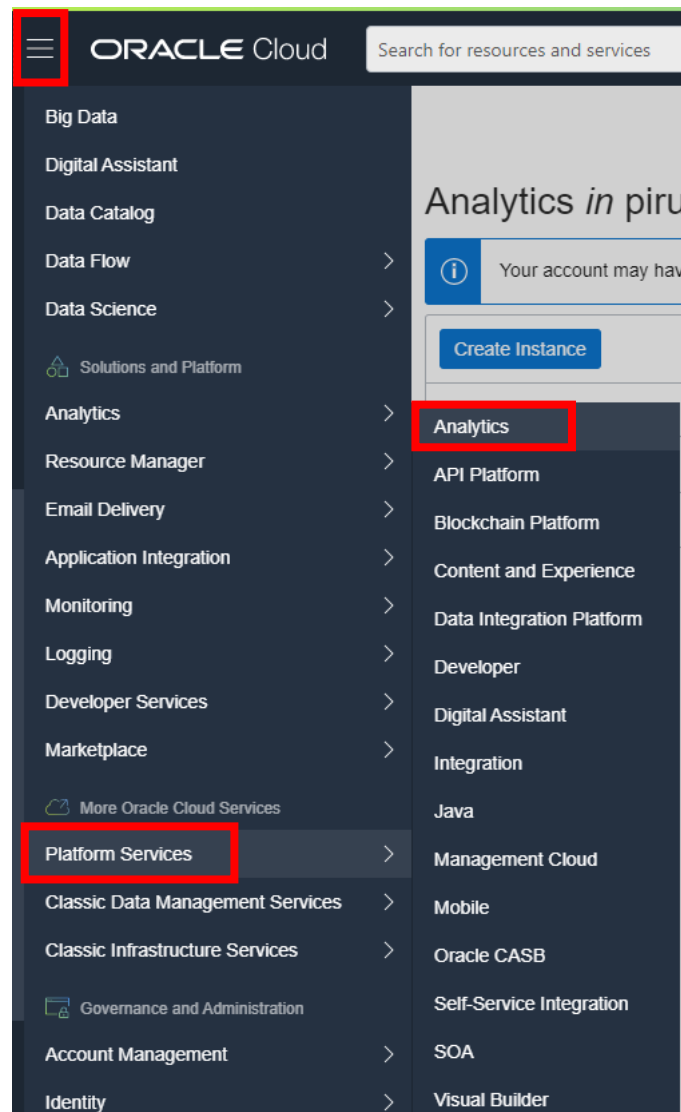
If your user does not contain the identity provider – (oracleidentitycloudprovider), please logout and select to authenticate using Single Sign On.



To be capable of using Oracle Analytics Cloud we need to be Sign-On as a Single Sign-On (SSO) user.

More information about federated users: <https://docs.cloud.oracle.com/en-us/iaas/Content/Identity/Tasks/usingscim.htm>

Return to the *Home Console Page* and navigate to **Platform Services** under **More Oracle Cloud Services** section and then **Analytics**.



Note: You must be connected as a Single Sign On (idcs) user to a tenancy, which has available cloud credits to see this menu item. Local OCI users are not able to do this.



This will open a new browser tab/window. Select **Create Instance**.

The screenshot shows the Oracle Analytics Cloud console interface. At the top, there's a dark blue header with the 'Analytics Cloud' logo and navigation links like 'QuickStarts', 'Welcome!', and 'Multiple'. Below the header, there's a light gray bar with 'Instances' and 'Activity' tabs. The main content area shows a summary of instances: 9 Instances and 10 OCPUs. Below this, there's a search bar for instances and a 'Create Instance' button, which is highlighted with a red rectangular box.

Complete the form using the following information:

Instance Name: WORKSHOPADWOAC

Region: No preference

License Type: "Subscribe to a new Analytics Cloud software license and the Analytics Cloud."
(You will use this service as part of the free Oracle Cloud trial that you requested for this workshop)

Edition: Oracle Analytics Cloud - Professional (important)

Feature Set: Professional Edition Feature Set (important)

Number of OCPUs: 1 - Non Production

Select **Next**.



Cancel

Instance

Confirm

Next

Create Analytics Cloud Instance

Analytics on Oracle Cloud Infrastructure Gen2 available soon! For now, complete the information on this page to set up an Analytics Cloud instance.

Details

* Instance Name

WORKSHOPADWOAC

?

Description

?

Notification Email

?

* Region

No Preference

?

Tags

+ ?

Identity Domain

Default

?

License Type

☐ My organization already owns Oracle middleware software licenses. Bring my existing middleware software license to the Analytics Cloud.

☒ Subscribe to a new Analytics Cloud software license and the Analytics Cloud.

* Edition

Oracle Analytics Cloud - Profe

?

Analytics Cloud

* Feature Set

Professional Edition Feature S

?

* Number of OCPUs

1 - Non production

?

On the Confirmation screen, select **Create**.

Previous

Cancel

Instance

Confirm

Create

Create Analytics Cloud Instance Confirmation

Review your selections and when you're ready, click Create.

Service

Instance Name: WORKSHOPADWOAC
Notification Email:
License Type: Cloud License
Edition: Oracle Analytics Cloud - Pr...
Region: No Preference

Analytics Cloud Configuration

Number of OCPUs: 1 - Non production
Feature Set: Professional Edition Featur...



The Analytics instance page will be displayed with a status of *CREATING service*.

The screenshot shows the Oracle Analytics Cloud 'Instances' page. At the top, there's a header with 'Analytics Cloud', 'QuickStarts', 'Welcome!', and a 'Multiple' dropdown. Below the header, there are tabs for 'Instances' and 'Activity'. A summary bar shows 10 Instances and 10 OCPUs. The main section lists instances, with 'WORKSHOPADWOAC' highlighted. Its status is 'Creating service...', which is highlighted with a red box. Other details include 'Submitted On: Apr 29, 2020 9:30:29 AM UTC' and 'OCPU: 1'.

The Analytics instance page will be displayed the OAC instance created and the status is *Ready*.

This screenshot shows the 'Overview' page for the 'WORKSHOPADWOAC' instance. The status is 'Ready', highlighted with a red box. The page displays various instance details: 'Active: Yes', 'Feature Set: Professional Edition Feature Set...', 'Service URL: https://WORKSHOPADWOAC-odca.anal...', 'License: Cloud License Change', 'Version: 105.5.0-318', 'Edition: Oracle Analytics Cloud - Profess...', and 'OCPU: 1'. The 'IDCS Application' is listed as 'AUTOANALYTICSINST_WORKSHOPADWOAC'. The page also shows the 'Instance Overview' tab and a timestamp 'As of Apr 29, 2020 10:04:31 AM UTC'.

You can now proceed onto running the labs.



WANT TO LEARN MORE ABOUT ADW & OAC?

Oracle Autonomous Data Warehouse official Documentation:

<https://docs.oracle.com/en/cloud/paas/autonomous-data-warehouse-cloud/>

Oracle Autonomous Data Warehouse on Shared Exadata Infrastructure:

<https://docs.oracle.com/en/cloud/paas/autonomous-data-warehouse-cloud/user/autonomous-intro-adw.html#GUID-4B91499D-7C2B-46D9-8E4D-A6ABF2093414>

Oracle Analytics Cloud official Documentation:

<https://docs.oracle.com/en/cloud/paas/analytics-cloud/index.html>

Oracle Analytics Cloud - What Is Oracle Analytics Cloud Documentation:

<https://www.oracle.com/business-analytics/analytics-cloud.html>

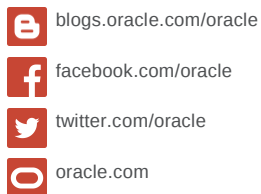




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