Register for Oracle Cloud, Access Cloud Dashboard, Generate SSH Keys, Create a Database on Oracle Cloud & Connect To Database

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1 INTRODUCTION

This activity guide cover steps to
- Create a FREE account on Oracle Cloud
- Access & Customize Cloud Dashboard
- Generate SSH Keys
- How to create the database on the Oracle Cloud

We also use this as first guide in our following Cloud Trainings (this is just first guide and in these trainings we have lot of other Activity Guides)

a) **Oracle Cloud Certification for DBAs[1Z0-160]: Database Cloud Service Certification**[http://k21academy.com/1z016003](http://k21academy.com/1z016003) for Step By Step Hands-On Guides in this Course visit [http://k21academy.com/1z016005](http://k21academy.com/1z016005)

b) **DBA to Cloud DBA**: *Deploy, Manage, Secure & Migrate (Lift and Shift) Database to Cloud (DBCS/DBaaS)*[http://k21academy.com/cloud03](http://k21academy.com/cloud03) for Step by Step Activity Guide in this Course check [http://k21academy.com/cloud05](http://k21academy.com/cloud05)

c) **Oracle EBS R12 on Cloud for Apps DBA’s**: *Create, Manage & Migrate (Lift & Shift) EBS R12 in Cloud*[http://k21academy.com/ebscloud03](http://k21academy.com/ebscloud03) for Step by Step Activity Guide in this Course check [http://k21academy.com/ebscloud05](http://k21academy.com/ebscloud05)

2 DOCUMENTATION LINKS

1. Subscribe to Oracle Cloud Service Account https://docs.oracle.com/en/cloud/get-started/subscriptions-cloud/get-a-trial-or-subscription.html
4. Download Putty http://www.putty.org
5. Download PuttyGen http://puttygen.software.informer.com/download/
9. To get to know about more on basic terminologies used in this document, refer the following link : http://docs.oracle.com/en/cloud/get-started/subscriptions-cloud/csgsg/oracle-cloud-terminology.html#CSGSG116
3 STEPS TO REGISTER FOR ORACLE CLOUD

This guide assume that you don’t have Oracle Cloud Account and registering for Cloud Access first time.

**Note:** If you already have Oracle Cloud Account then you can skip this section and go to generate SSH Keys

1. Go to the Oracle Cloud Home Page [https://cloud.oracle.com/home](https://cloud.oracle.com/home)
2. On top right click Try for Free

3. You will be redirected to page like below: [https://myservices.us.oraclecloud.com/mycloud/signup?language=en&sourceType=ref_coc-asset-opcHome](https://myservices.us.oraclecloud.com/mycloud/signup?language=en&sourceType=ref_coc-asset-opcHome)

   **Note:** You get 300 USD FREE Credit for US (If you are in other countries, you get equivalent of 300 USD) that must be used in 30 Days (As of November 2018)

   **Note:** Even though there is FREE 300 USD Credit that is valid for 30 Days but you’ll still need Credit/Debit Card and you will be charged around 1 USD. You’ll not be charged more than approx. 1 USD, unless you upgrade your account to Paid or Pay as You Go (PAYG) model.

a. Provide Details and click on **Complete**

Fill out all the mandatory informations like Cloud account name, Default data region, Email Address, and Fill your address and all other details.

- **Account Type**: Personal Use (If this is for your company then select Company Use)
- **Cloud Account Name**: <Enter Account Name of Your Choice>
- **Country**: India (Put country name according to your Location)
- **Default Data Region**: North America, EMEA (Europe, Middle East, and Africa) 
  (Select Data Region of your choice. Your cloud Data will reside in this location)

  **Note**: If you are in APAC (Asia Pacific) then we had trainees reporting issues in past with access to Cloud Dashboard so make sure you select North America or EMEA as Data Region

- **Address**: <Enter your Address>
- **Email Address**: <Your Email Address> (make sure you put correct and working email address as this will be your username and all details will go this email Id only)
- **City**: <Enter your City>
- **State**: <Enter your State>
- **First Name**: <Enter your First Name>
- Last Name: <Enter your Last Name>
- Postal Code: <Enter your Post Code>
- PAN: This entry will show if your Country mention as India
- Uncheck the tax information is not available

**Note:** Some of the entries may be different depending on your country

**Note:** If you are belong to North America as India you will get 400 SDG or for UK 259 GBP for 30 days only, it will change according to your Country location as for US its $300 USD

**Note:** if you want to register again with Cloud account you can use same mobile number which you used earlier, but your Email Id should be unique

**Note:** For every new cloud account you create use different mail id, phone number and debit/credit card you are using

**Note:** Free Oracle Cloud Promotion is only available in North America and EMEA data regions.

### 3.1 Data Region as EMEA

**Note:** If you are in APAC (Asia Pacific) then we had trainees reporting issues in past with access to Cloud Dashboard so make sure you select US or EMEA as Data Region

Guidelines for Selecting a Default Data Region:

[https://cloud.oracle.com/data-regions](https://cloud.oracle.com/data-regions)
3.2 Data Region as North America

4. Then in Verification Code Tab Provide your Mobile Number and click on Request Code (make sure country code is correct, I am doing this from INDIA so code +91)
Note: if you want to register again with Cloud account you can use same mobile number which you used earlier, but your Email Id should be unique)

5. Then in Verification Code is in Progress...........

Note: If you did not receive the Verification code or any Error occurred, you can request Code again from Request Code button

6. You will get message on your mobile phone (You have 30 Minutes on above page to update or request code again)

7. Enter Verification code that you received on phone as message, and click on Verify
8. Once you entered the Verification code, you should get message verified. (Green tick)

9. On Credit Card detail Tab, Click on Add Payment Method.

Note: Even though there is FREE 300 USD Credit that is valid for 30 Days but you’ll still need Credit/Debit Card and you will be charged around 1USD. You’ll not be charged more than approx. 1USD, unless you upgrade your account to Paid or Pay as You Go (PAYG) model.

For more about FREE Credit FAQ, check https://shop.oracle.com/apex/f?p=CLOUD:23:14585164885640:::23:

11. When you click on Add Payment Method, One popup box will open. Fill out your Billing information and credit card details, click on Finish button.
Note: Even though you get 300 USD or other amount (based on your country) as FREE Credit, you still have to provide Credit Card Details.


10. Provide **Credit Card Details** and click **Finish**
11. On Cloud Registration Page, verify details for Credit Card. (if you need to edit you payment details you can click in edit payment method)

12. On Terms & Condition, Click on Complete to sign up for Cloud account.
13. Your Oracle Cloud Account has been created. It will take 15 minutes to get login details in mail (at busy times it may take longer than that). (Till this time watch the video for How to access the Oracle Account)

3.3 Check Mail

1. You will receive the Welcome mail (check your SPAM or Updates Folder if using Gmail), in this mail you will have your Oracle username, TemporaryPassword and Cloud Account details.
2. When you check your details click on “Get Started with Oracle Cloud”

Note: You can also go from http://cloud.oracle.com -&gt; Sign In

Note: In our case Cloud Account is K21Academy and we are using Cloud Account with Identity Cloud Service/IDCS
3. Provide the **username** & **password** to login to Oracle Cloud Account

4. *(Details will come on your Email from which you have sign up for Cloud account)*

5. Click on **Sign in**

6. After Clicking on Sign in option, for first time provide your Old password (temporary password received in mail), and new Password.

**Note:** There are two type of Cloud Accounts Traitional Account or Account with Identity Cloud Service (IDCS). In your training you’ll learn all this and more.
(Note: Make sure your password reach to password criteria)

7. Click on submit, when you successfully able change the password.

8. This completes registration for Cloud Account and your will see this screen and how getting started with Oracle Cloud.
Note: This completes registration for Cloud Account and you will see this screen and how getting started with Oracle Cloud.
3.4 Switch Between IDCS & Traditional Account

**Note:** You can switch between your accounts by selecting an account from the **Identity Domain** list. For example, you can switch between a traditional cloud account (identity domain) and a cloud account with Identity Cloud Service. The table below summarizes the differences in the dashboard view and service access when you switch accounts.

<table>
<thead>
<tr>
<th>Cloud Account with Identity Cloud Service</th>
<th>Traditional Cloud Account (Identity Domain)</th>
</tr>
</thead>
<tbody>
<tr>
<td>View all services in this account and the traditional account.</td>
<td>View services in this account only, not the ones in the Cloud Account with Identity Cloud Service.</td>
</tr>
<tr>
<td>Limited access to the services in the traditional account. You must switch to traditional account to create service instances.</td>
<td>No access to services in Cloud Account with Identity Cloud Service.</td>
</tr>
</tbody>
</table>

*Note:* This Completes Registering Account on Oracle Cloud. In Next section, you will create SSH keys that is pre-requisite to create any type of Instance like Cloud Certification for DBAs (1Z0-160), Database on Cloud, E-Business Suite, SOA, WebLogic etc on Cloud.
Before you can create Database or EBS (R12) instance on Cloud, You must generate SSH Key Pair (Private & Public Keys) so that you can connect to Linux Machine on which Database or EBS R12 is installed.

Public Key will be uploaded on Oracle Cloud Server while private key must be kept safe with you.

### 4.1 Generate SSH Private & Public Keys using PuttyGEN

In this section we download WinSCP installer with puttygen (Utility to connect to Unix server) from and

a) Generate Private & Public Key on local Laptop or PC using puttygenkeygen tool from putty that we created in previous section (make a note of location of private & public Key).

b) When we create Database as a Service Instnce, you provide public key that gets stored on Oracle Database Cloud Service Server (**It is OK to share Public Key but never share Private Key**)

c) Future connection from local Laptop/PC is securely done over SSH and is Authenticated using Private/Public Key pair.
Depending on operating system of your laptop or desktop (Windows or Mac) refer respective section to generate SSH Private and Public Keys.

Download Puttygen Software from here: http://puttygen.software.informer.com/download/

1. Install PuttyGen Click “Run PuttyGen.”

4.1.1 GENERATE KEYS ON WINDOWS LAPTOP/DESKTOP

You can either use puttyGen from WinScp (Provided you get option SSH-2 RSA for Type of Key) otherwise download puttyGen from http://puttygen.software.informer.com/download/

*Note: If you are on Mac then check steps later in this section*

2. You can use WinSCP, Open Tools and Run PuTTYGen you’ll have the advanced option of using the ‘PuttyGen’. 
3. When you click on Run PuTTYgen, it will open as below:

![PuTTYgen window](image)

4. To generate the keys, Click on **Generate** and hover your mouse around the area blank area randomly as shown:

![PuTTY Key Generator](image)
5. There will be a key generated in the blank box as shown below. Click on Save private key button to save the private key in your system. Add the key passphrase (Password) and re-enter it again to confirm passphrase.

For public key, first copy and paste the Key content in some other file from the shown window as sometimes it shows issue while accepting public key file. In that case we can use the copied key content. After that click on Save Public Key to save the file and save at the same location where you have saved private key in your system.

Note: We can also save private key without passphrase but for security reasons you can enter passphrase. (In production you must use passphrase to protect your private key).
After generating and saving both the keys, you can go back to the Cloud Portal.

6. This will generate Private & Public Key, Save them to your Laptop/Desktop.

**Note:** Make a note of these two keys as you will need public key in next Activity Guide.
If you are on Mac and using Terminal (and not Putty) then follow
https://www.siteground.com/kb/how_to_generate_an_ssh_key_pair_in_mac_os/

Note: Make a note of these two keys as you will need public key in next Activity Guide.

Note: Download Next Activity Guide from Membership Portal
http://k21academy.com/my-courses and depending on which training you are part of
You can customize the options shown on Dashboard by following the steps below.

1. Click on **Customize Dashboard**.

   ![Customize Dashboard Step 1](image1.png)

2. Now scroll down and click on **Show** in front of **Database Classic**.

   **Note:** Here we are selecting **Database Classic**. You can select the required option to show on Dashboard.

   ![Customize Dashboard Step 2](image2.png)
3. You should be able to see Database Classic under Dashboard now. Click on Hamburger menu in front of Database Classic and then click **Open Service Console** to Proceed.
6 STEPS TO ENABLE STORAGE & DATABASE CLASSIC SERVICES TO YOUR ORACLE CLOUD ACCOUNT

If you are enable to see the Classic services in your Oracle Cloud Account, Please perform below steps.

Note: As per December 2018, Oracle has Disabled the Classic Services from EMEA & NorthAmerica Region, However, we are showing you steps on How to enable it on Latin America Region (as of Dec 2018)

Step-1
Login to the Cloud Console, on the Dashboard, You will see Account Management Tab:

Step-2
Under Account Management, Click on Account Management again

Step-3
Click on the Hamburger menu button

Step-4
Click on Manage Data Regions
Step-5
Enable the LAD Region

Wait for 45 mins to 1 hour. You will get an email from Oracle, for the Login details of LAD Region. Once you get mail notification you can check and confirm.

Step-6
Login to the Cloud account and change region as Shown below, from the drop down menu:
Step-7
You should be able to see Storage Classic and Database Classic, you can start using Services.
7 CREATING THE ORACLE DATABASE CLOUD SERVICE

Create Oracle Database Cloud Service includes

- Login to Oracle Cloud Account
- Create Oracle Database Instance

7.1 Login to Oracle Cloud

1. Follow Activity Guide 1, section Login to Cloud Account and access Cloud Dashboard

You should be on page like below

7.2 Create Database Deployment

1. On Cloud Dashboard, under Database Classic click on Hamburger Menu and click on Open Service Console
1. Click on **Create Instance** button on **Services** tab

2. After clicking on Create Instance button fill details for database that you want to create, below is a sample to fill the details, an then Click **Next**

**Note:** remember you got just 300 USD credit so shutdown DB when not in use.
3. Then you'll have to fill the service details, or the setup you want according to your requirements, below is a sample of all details filled for the same.

**Note:** Select Compute Shape as shown in below diagram, if you will select VM 1.1 shape then you will get an error while creating Database

**Note:** This is for EMEA Region, under LAD (Latin America) Region you can select 1.1 shape also

**Check Troubleshooting section**

As Oracle has removed all the classic services from Trail as well as Paid Cloud Account, because of this reason you might not able to see storage container URL. So we would suggest you to create Database Instance, without Backup Option.
We kept password as **Ach1z0#d** as we were struggling to keep password & that was accepted by Oracle 😊

**Note:** In order to get the SSH public Key Please check our activity guide 1

Once this gets done, click on the "**Next button**".

4. Then it will take you to another window, which will ask you to confirm you about all the configuration settings you have chosen for you instance creation, after confirming all the details, click on **Create**
5. Once it gets created, it will show you the progress of your instance creation.

**Note:** This whole process usually takes 40-45 minutes, if you refresh it a few times, it will show you the version, the timestamp when it was created, as shown:
6. If you want to go to the details, you can click on the database name (DemoDatabaseDB), it will give you the IP address that you will be using to connect to this virtual machine, with other useful details.

**Note:** Create Oracle Cloud Database Service may take 40-45 minutes

Once creation completes, you will see Service Status changed from Creating Service to Ready.

*Don’t forget to stop Database Cloud Service at end of this document after using it else you will dry up your 300 USD Credit in few days.*

### 7.3 To create Database in LAD Region:

1. On Cloud Dashboard, under Database Classic click on Hamburger Menu and click on Open Service Console
2. Click on **Create Instance** button on Services tab
3. After clicking on Create Instance button fill details for database that you want to create, below is a sample to fill the details, and then Click **Next**

Once it gets created, it will show you the progress of your instance creation.

**Note:** *This whole process usually takes 40-45 minutes*

Next, Follow the same step as per EMEA Region.
7.4 Check Status of Database in Cloud

1. On Cloud Dashboard, under database Classic click on Hamburger Menu and click on Open Service Console

1. Click on Database you created earlier on DBCS Instance
2. You’ll come to DBCS Instance page to check details like Public IP of Database machine.
You can now connect to cloud database instance either from Windows Machine (using Putty or SSH client) or from Mac (using Terminal).

**Note:** You will need ssh private key at this stage that you generated in Activity Guide 1

### 8.1 Connect From Windows

1. Download [Putty](http://www.putty.org) if not done already depending on your Operating System like Windows 32bit or 64 bit (If you are on Mac then check steps in next section)

   ![Putty Image]

   **Download PuTTY**

   PuTTY is an SSH and telnet client, developed originally for Microsoft Windows.

   You can download PuTTY [here](http://www.putty.org).

3. Let’s try to connect both the machines, open PuTTY. Fill the information which was displayed after creation of the instance, as shown:
4. After that go to the SSH tab in the left side, and in the SSH tab, select the AUTH tab. There you browse the Private key to be saved.

Note: Make sure public key is also present in same folder where you have private key.
5. Then you go to the Data section in the left side, and give the Auto login Username, give the name either opc or oracle then click Open.

Note: If you hit issue "No supported authentication methods available then check Troubleshooting section 10.1."
6. Now, it will show you the console where you can see the Username opc, it will also authenticate the public key that you created, that has got uploaded here:

7. You can also try some other commands, such as:

ps -ef |grep pmon
sudo su - oracle
sqlplus "/as sysdba"
SQL> show pdbs
8.2 Connect from Mac

Below screen is on terminal from Mac (For MAC Users only) using Private SSH Key and connect as user opc.

```bash
ssh -l <private_key>opc@<public_IP_of_Database_on_Cloud>
```

Note: This Section finishes Connecting to Database Host
9 STOP CLOUD DATABASE TO AVOID BEING CHARGED

If you are not using Oracle Cloud Database Service, make sure you stop Database Service else you will be charged and you can burn your FREE 300 USD Credit soon.

1. Login to Cloud Dashboard, next to **Database Classic** from DropDown click **Open Service Console**

2. Click on Service (In My Case Service Name is DatabaseDemoDB)
3. From DropDown click **Stop**

4. Click **OK** on confirmation Page

5. Next to **Service** from DropDown click **Stop**
6. Click **OK** on confirmation Page

7. Finally you should see Maintenance next to both **Resources** and **Service**
Database Status will be Stopped and you will not be charged as Status is Stopped.
Step 1: login to your cloud account [https://cloud.oracle.com/home](https://cloud.oracle.com/home)

Step 2: On the top right side for your console, you will see a ? (Question Mark). Click on that & you will find all the details there:
Step 3: When you click on the Create Service Request, it will redirect you to https://support.oracle.com/
You can also Chat with Oracle support, you can get a popup on your dashboard or else when you click on (?), you will see below the option to chat with support.

Note: To Create a Cloud Service Request (SR), Please follow the (Doc ID 1484944.1)
This ends the demo on:

- How to Register for Oracle Cloud
- How to Login to Cloud Account
- How to Customize Dashboard
- How to Create an Oracle Database on the Oracle Cloud.
- How do we use Connect to Database Host from Putty/Terminal
- How to Stop Services on Cloud
12 TROUBLESHOOTING

12.1 No supported Authentication methods available.

12.1.1 ISSUE:

One of our trainees has created one database instance on cloud and after that, he was trying to connect to the instance via Putty (SSH) but was getting below error message.

PUTTY Fatal Error:
Disconnected: No supported authentication methods available (server sent: publickey, gssapi-keyex, gssapi-with-mic

12.1.2 CAUSE: SSH CONNECTIVITY ISSUE

There could be 2 cause of this issue:

1. Your SSH port 22 is not open from internet in Cloud Firewall
2. SSH Public key you generated was not generated or not uploaded properly while creating the instance (or you are not using Private Key Properly in Putty).

12.1.3 HOW TO CHECK IF SSH PORT 22 IS OPEN

In order to find if SSH port 22 is open on Cloud from Internet, use telnet from machine you are connecting.

telnet <public IP of Machine> 22
If port is open you should see output like

```
Trying 129.154.72.105…
Connected to .129.154.72.105
Escape character is '^]'.
```

In our case port 22 was not open across Firewall on Cloud

**12.1.4**  **FIX:**

1. For first cause mentioned above, make sure you have opened the **SSH port 22**. To open the SSH Port 22, create a **Security Rule** to allow ssh port from **Network** tab as shown below.
2. For the second (Wrong Certificates or wrong configuration in Putty), Try to avoid *copy-paste* key while creating an instance. Instead of that save and browse the public key file from the saved location.

### 12.2 Select 2.2 Compute Shape to create a Database

**Note:** If you select compute shape 1.1, you will get below error while creating a database:

So, Please select compute shape 2.2 to successfully creation of DB.