



Migrating WebLogic Server

Migrating WebLogic Server applications
from on-premises to Oracle Cloud Infrastructure

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1 PURPOSE STATEMENT

This document includes an overview of features and enhancements included in WebLogic Server for Oracle Cloud Infrastructure (WLS for OCI). It is intended solely to help you assess the business benefits of migrating existing WebLogic applications to WLS for OCI and to plan your I.T. projects.

2 DISCLAIMER

This document is for informational purposes only and is intended solely to assist you in planning for the implementation and upgrade of the product features described. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described in this document remains at the sole discretion of Oracle.

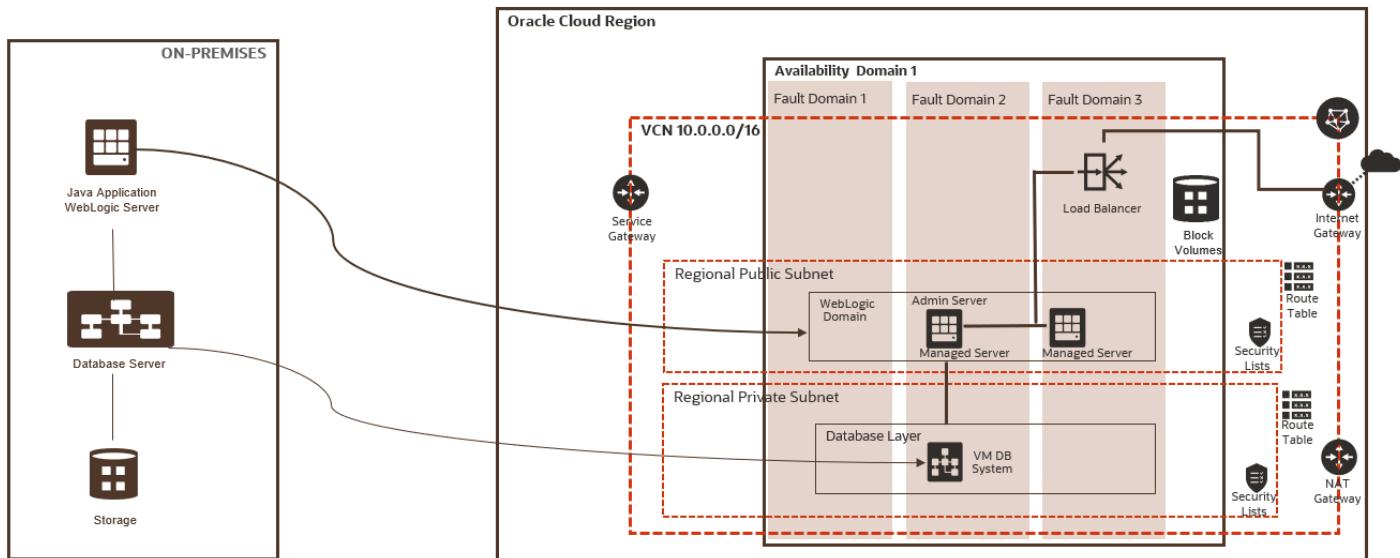
Due to the nature of the product architecture, it may not be possible to safely include all features described in this document without risking significant destabilization of the code.

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3 ARCHITECTURE

On-premises WebLogic App Migration to OCI Architecture



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4 PRE-REQUISITES

4.1.1 Software, credentials and accounts

- **Putty and WinSCP (for MacOS)**
Get WinSCP [here](#)
Get Putty [here](#)
OR
MobaXterm (alternate for both Putty and WinSCP, but not recommended for MacOS)
Get MobaXterm [here](#)
- Oracle Cloud Trial Account and login credentials.

4.1.2 Get the required files to run this workshop

<https://github.com/kashyapdivya93/WebLogic-to-oci.git>

Download the zip folder from [here](#).

Unzip the content in your local machine.

The screenshot shows a GitHub repository page for 'kashyapdivya93 / weblogic-to-oci'. At the top, there's a navigation bar with links for Why GitHub?, Team, Enterprise, Explore, Marketplace, Pricing, and a search bar. Below the navigation is a header for the repository, showing a green fork icon, the repository name, and a 'Code' tab which is currently selected. Other tabs include Issues, Pull requests, Actions, Projects, Security, and Insights. A large 'Join GitHub today' banner is prominently displayed in the center. Below the banner, there's a list of files in the 'master' branch, including 'Bob', 'Bob.ppk', 'Bob.pub', 'SimpleDB.ear', 'createSchema.sql', and 'databasemigration.sh'. To the right of the file list, there are options to 'Clone with HTTPS' (with a URL provided), 'Open with GitHub Desktop', and a highlighted 'Download ZIP' button. The date '2 months ago' is shown next to the ZIP download link, and '1 hour ago' is shown next to the most recent file entry.

5 SIGNING UP FOR ORACLE CLOUD ACCOUNT

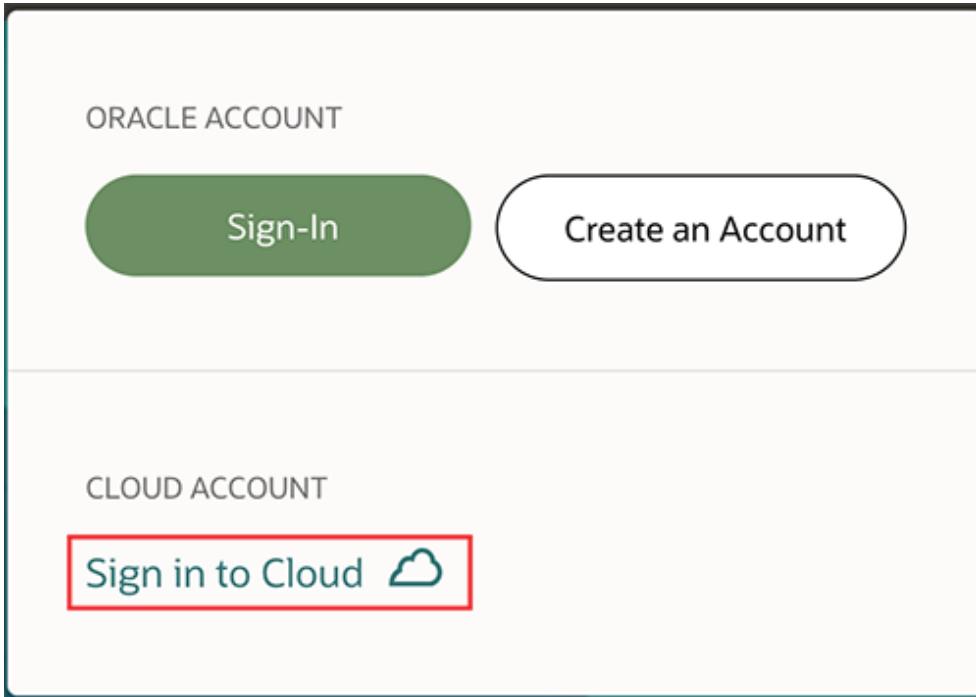
Signing up for OCI.

Login to www.cloud.oracle.com

Click on the icon to login to oracle console

The screenshot shows the Oracle Cloud Free Tier landing page. At the top, there's a navigation bar with icons for home, menu, search, and account. The search bar contains the text 'Ask "Oracle vs AWS"'. On the right side of the top bar, there's a red box highlighting the account icon. The main content area features three main sections: 'Gen 2 Cloud Infrastructure' (described as highly automated and secure, combining the elasticity and utility of public cloud with the granular control, security, and predictability of on-premise infrastructure), 'Cloud Applications' (described as a complete suite of integrated apps that streamline business processes), and 'About ORACLE' (described as unlocking endless possibilities through a culture of innovation). A green button labeled 'Our mission' is located at the bottom right of the main content area.



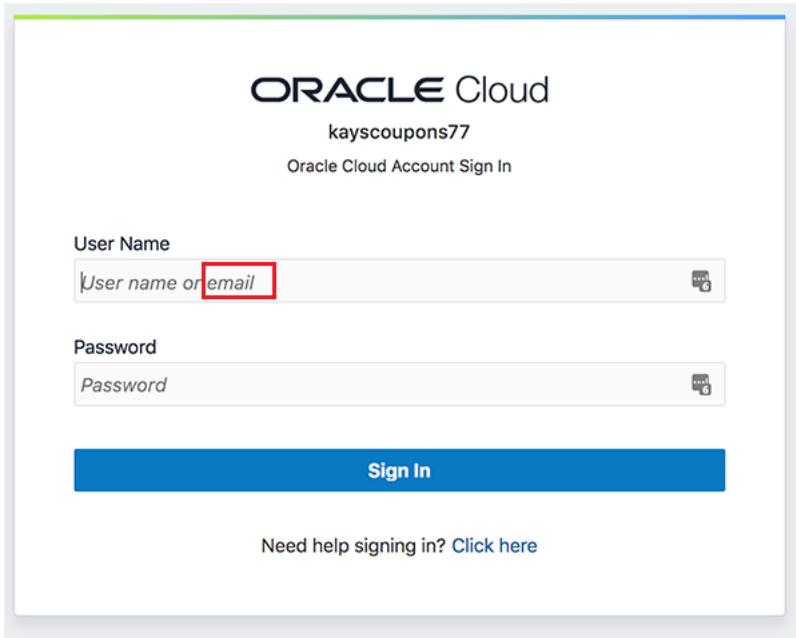


Enter the unique tenancy name assigned to your account.

A screenshot of the first step of the Oracle Cloud account sign-in process. The title "ORACLE® Cloud" is at the top. Below it is a form field labeled "Account" with a question mark icon. The input field contains the text "kmalcolm" and is highlighted with a red border. A large blue "Next" button is positioned below the input field. At the bottom of the screen, there is a link "Sign In using Traditional Cloud Account".

Enter email you used to signup for OCI account





You will end up on this page once you login

6 PREPARE ORACLE CLOUD INFRASTRUCTURE ACCOUNT

Below are list of resources that we will create for this workshop

1. Network
2. Secrets/Vault
3. DB Systems
4. WebLogic Cluster



6.1 Create a Compartment

- In Governance & Administration -> Identity -> Compartments
- Click Create Compartment.
- Make sure to select the proper parent compartment where the new compartment should live.

The screenshot shows the Oracle Cloud Identity interface. On the left, there's a sidebar with various service links like Application Integration, Monitoring, Developer Services, etc. The 'Identity' link is highlighted with a teal bar. Under 'Identity', the 'Compartments' link is also highlighted with a teal bar. The main content area has a heading 'AUTONOMOUS TENANT' with a 'Create an AT' button. Below it are two cards: 'Create an Autonomous Database' (3-5 mins) and 'Store data' (2-6 mins). A 'Search for resources, services...' bar is at the top right.

<https://console.us-ashburn-1.oraclecloud.com/identity/compartments>

For this workshop, use:

Name: WLS-workshop

Compartment names don't allow spaces, but you can use _ , -

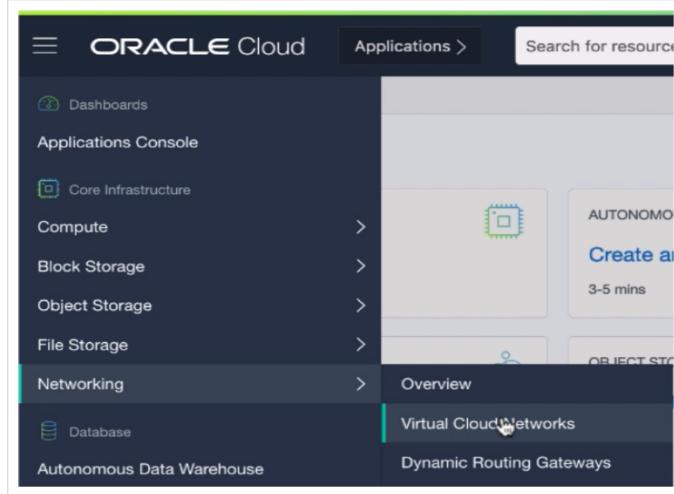
The screenshot shows the 'Create Compartment' dialog box. It has fields for NAME (WLS-Workshop), DESCRIPTION (compartment to execute weblogic workshop), PARENT COMPARTMENT (natdcshjumpstartprod (root)), and TAGGING (None). At the bottom is a 'Create Compartment' button.

6.2 Create the Virtual Cloud Network (VCN)



6.2.1 Create a VCN

- In the OCI web console, Go to Networking -> Create Virtual Cloud Network
- If you will be migrating databases and require connecting from on-premises to this VCN via VPN or Fast Connect, make sure the VCN CIDR range on OCI does not overlap with the on-premises VCN CIDR range.
- Select the compartment from left section. Click Create VCN.



Create a Virtual Cloud Network

NAME
WLS2

CREATE IN COMPARTMENT
WLS-Workshop
natdcsjumpstartprod (root)/WLS-Workshop

CIDR BLOCK
10.0.0.0/16
Example: 10.0.0.0/16
If you plan to peer this VCN with another VCN, the VCNs must not have overlapping CIDRs. [Learn more](#).

DNS RESOLUTION
 USE DNS HOSTNAMES IN THIS VCN
Required for instance hostname assignment if you plan to use VCN DNS or a third-party DNS. This choice cannot be changed after the VCN is created. [Learn more](#).

DNS LABEL
WLS2
Only letters and numbers, starting with a letter. 15 characters max.

DNS DOMAIN NAME READ-ONLY
WLS2.oraclevcn.com

[Show Advanced Options](#)

Create VCN [Cancel](#)



- Name: Give a name to your VCN
- CIDR Block: 10.0.0.0/16
- Click **Create VCN**.

6.3 Create a WebLogic Subnet

6.3.1 Add Rules in Default Security list

- Click **Add Ingress Rules**
- Set the **Source CIDR** to be 0.0.0.0/0
- Set the **Destination Port Range** to 9071-9073
- Add additional rule, Click **Add Ingress Rules**
- Set the **Source CIDR** to be 0.0.0.0/0
- Set the **Destination Port Range** to 7001-7004

Ingress Rules							
Ingress Rules (5)		Edit Remove					
	Stateless	Source	IP Protocol	Source Port Range	Destination Port Range	Type and Code	Allows
<input type="checkbox"/>	No	0.0.0.0/0	TCP	All	22		TCP traffic for ports: 22 SSH Remote Login Protocol
<input type="checkbox"/>	No	0.0.0.0/0	ICMP			3, 4	ICMP traffic for: 3, 4 Destination Unreachable: Fragmentation Needed and Don't Fragment was Set
<input type="checkbox"/>	No	10.0.0.0/16	ICMP			3	ICMP traffic for: 3 Destination Unreachable
<input type="checkbox"/>	No	0.0.0.0/0	TCP	All	9071-9073		TCP traffic for ports: 9071-9073
<input type="checkbox"/>	No	0.0.0.0/0	TCP	All	7001-7004		TCP traffic for ports: 7001-7004

0 Selected

6.3.2 Create the public WebLogic Subnet

- Click **Create Subnet**.
- Name: wlsnodesSubnet
- Subnet Type: Regional
- CIDR Block: 10.0.3.0/24
- Subnet Access: Public Subnet
- Select Default Route Table
- Select default DHCP options
- Select default Security list
- Next, Click **Create Subnet**.



The screenshot shows the 'Create Subnet' wizard in the Oracle Cloud Infrastructure console. The subnet is named 'wlsnodesSubnet'. The subnet type is set to 'REGIONAL (RECOMMENDED)', which allows instances to be created in any availability domain within the region. The CIDR block is specified as '10.0.3.0/24', covering IP addresses from 10.0.3.0 to 10.0.3.255. The subnet access is set to 'PUBLIC SUBNET', allowing public IP addresses. DNS resolution is configured with the option 'USE DNS HOSTNAMES IN THIS SUBNET' checked. A note indicates this allows assignment of DNS hostname when launching an instance.

Create Subnet

If the Route Table, DHCP Options, or Security Lists are in a different Compartment than the Subnet, enable Compartment selection for those resources: [Click here](#)

NAME
wlsnodesSubnet

SUBNET TYPE
 REGIONAL (RECOMMENDED)
 Instances in the subnet can be created in any availability domain in the region. Useful for high availability.
 AVAILABILITY DOMAIN-SPECIFIC
 Instances in the subnet can only be created in one availability domain in the region.

CIDR BLOCK
10.0.3.0/24

Specified IP addresses: 10.0.3.0-10.0.3.255 (256 IP addresses)

ROUTE TABLE
Select a route table

SUBNET ACCESS
 PRIVATE SUBNET
 Prohibit public IP addresses for Instances in this Subnet
 PUBLIC SUBNET
 Allow public IP addresses for Instances in this Subnet

DNS RESOLUTION
 USE DNS HOSTNAMES IN THIS SUBNET (i)
 Allows assignment of DNS hostname when launching an Instance

DNS LABEL

6.4 Create a Load Balancer Subnet

- Click **Create Subnet**.
- Name: wlslbSubnet
- Subnet Type: Regional
- CIDR Block: 10.0.4.0/24
- Subnet Access: Public Subnet
- Select Default Route Table
- Select default DHCP options
- Select default Security list
- Next, Click **Create Subnet**.



Create Subnet

If the Route Table, DHCP Options, or Security Lists are in a different Compartment than the Subnet, enable Compartment selection for those resources: [Click here](#)

NAME
wlslbSubnet

SUBNET TYPE
 REGIONAL (RECOMMENDED)
 Instances in the subnet can be created in any availability domain in the region. Useful for high availability.
 AVAILABILITY DOMAIN-SPECIFIC
 Instances in the subnet can only be created in one availability domain in the region.

CIDR BLOCK
10.0.4.0/24
Specified IP addresses: 10.0.4.0-10.0.4.255 (256 IP addresses)

ROUTE TABLE
Select a route table

SUBNET ACCESS
 PRIVATE SUBNET
 Prohibit public IP addresses for Instances in this Subnet
 PUBLIC SUBNET
 Allow public IP addresses for Instances in this Subnet

DNS RESOLUTION
 USE DNS HOSTNAMES IN THIS SUBNET (i)
 Allows assignment of DNS hostname when launching an Instance

DNS LABEL

6.5 Create a Database Subnet

6.5.1 Create a Security list for the database subnet

Create a Security list with an Ingress Rules to allow TCP 1521 from the WebLogic CIDR block (source CIDR) and TCP 22 from 0.0.0.0/0

- In the VCN created at the previous step, select **Security Lists**
- Click **Create Security List**
- Name the Security List to be recognizable as the database subnet security list, such as *dblist*
- Under **Allow Additional Ingress Rule**, Click **Additional Ingress Rule**
- Set the **Source CIDR** to be the WebLogic CIDR block 10.0.3.0/24
- Set the **Destination Port** to 1521
- Under **Allow Additional Ingress Rule**, Click **Additional Ingress Rule**
- Set the **Source CIDR** to be 0.0.0.0/0
- Set the **Destination Port** to 22



COVID-19 crisis.

The screenshot shows the Oracle Cloud Infrastructure (OCI) Security List configuration interface. It displays two ingress rules:

- Ingress Rule 1:** Allows TCP traffic on port 22 (SSH Remote Login Protocol).
 - Source CIDR: 0.0.0.0/0 (Specified IP addresses: 0.0.0.0-255.255.255.255 (4,294,967,296 IP addresses))
 - IP Protocol: TCP
 - Source Port Range: All (Examples: 80, 20-22)
 - Destination Port Range: 22 (Examples: 80, 20-22)
 - Description: Maximum 255 characters (Empty)
- Ingress Rule 2:** Allows TCP traffic on port 1521.
 - Source CIDR: 10.0.3.0/24 (Specified IP addresses: 10.0.3.0-10.0.3.255 (256 IP addresses))
 - IP Protocol: TCP
 - Source Port Range: All (Examples: 80, 20-22)
 - Destination Port Range: 1521 (Selected, Examples: 80, 20-22)
 - Description: Maximum 255 characters (Empty)

- Click **Create Security List**

6.5.2 Create the private database subnet

- Click **Create Subnet**.
- Name: wlSdbSubnet
- Subnet Type: Regional
- CIDR Block: 10.0.5.0/24
- Subnet Access: Private Subnet
- Security List: dblist
- Next, Click **Create Subnet**.



Create Subnet

If the Route Table, DHCP Options, or Security Lists are in a different Compartment than the Subnet, enable Compartment selection for those resources: [Click here](#)

NAME
wlsdbSubnet

SUBNET TYPE
 REGIONAL (RECOMMENDED)
 Instances in the subnet can be created in any availability domain in the region. Useful for high availability.
 AVAILABILITY DOMAIN-SPECIFIC
 Instances in the subnet can only be created in one availability domain in the region.

CIDR BLOCK
10.0.5.0/24
Specified IP addresses: 10.0.5.0-10.0.5.255 (256 IP addresses)

ROUTE TABLE
Select a route table

SUBNET ACCESS
 PRIVATE SUBNET
 Prohibit public IP addresses for Instances in this Subnet
 PUBLIC SUBNET
 Allow public IP addresses for Instances in this Subnet

DNS RESOLUTION
 USE DNS HOSTNAMES IN THIS SUBNET (i)
Allows assignment of DNS hostname when launching an Instance

DNS LABEL

DNS LABEL
Generated from subnet name if not specified
Only letters and numbers, starting with a letter. 15 characters max.

DNS DOMAIN NAME READ-ONLY
<dns-label>.wls2.oraclevcn.com

DHCP OPTIONS
Select DHCP options

Security Lists

SECURITY LIST
dblist

+ Additional Security List

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



6.6 Create an Internet Gateway

- In the VCN details page go to **Internet Gateways**
- Click **Create an Internet Gateway**
- Name the Internet Gateway
- Click **Create Gateway**
- Then go to **Route Tables**
- Click the **Default Route Table for the VCN**
- Click **Add Route Rules**
- Select **Internet Gateway**
- Set **Destination CIDR block** to be 0.0.0.0/0 (all sources)
- Select the Internet Gateway created at the previous step as the **Target Internet Gateway**
- Click **Add Route Rules**

This is needed for the terraform deployment stack to be able to check deployment status.

The screenshot shows the Oracle Cloud interface for managing Virtual Cloud Networks (VCNs). At the top, there's a navigation bar with 'ORACLE Cloud' and a search bar. Below it, the breadcrumb navigation shows: Networking > Virtual Cloud Networks > Virtual Cloud Network Details > Internet Gateways. On the left, there's a sidebar with 'Resources' and a list of network components: Subnets (3), Route Tables (1), Internet Gateways (0) [which is selected], Dynamic Routing Gateways (0), Network Security Groups (0), Security Lists (2), and DHCP Options (1). The main content area is titled 'WLS2' and shows a green hexagonal icon with 'VCN' in white. It has buttons for 'Move Resource', 'Add Tags', and 'Terminate'. Below the icon, tabs for 'VCN Information' and 'Tags' are visible. Under 'VCN Information', details are listed: CIDR Block: 10.0.0.0/16, Compartment: WLS-Workshop, and Created: Thu, Jul 16, 2020, 14:14:43 UTC. To the right, OCID, Default Route Table, and DNS Domain Name are shown. A section titled 'Internet Gateways in WLS-Workshop Compartment' contains a 'Create Internet Gateway' button and a table with columns for Name, State, and Create. The table is currently empty, showing 'No items found.'



Create Internet Gateway

NAME
WLWorkshop

CREATE IN COMPARTMENT
WLS-Workshop

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)		

+ Additional Tag

Create Internet Gateway **Cancel**

ORACLE Cloud Applications > Search for resources, services, and documentation US East (Ashburn) ▾

Networking > Virtual Cloud Networks > WLS2 > Route Table Details

Default Route Table for WLS2

Move Resource Add Tags Terminate

Route Table Information Tags

OCID: ...rtysta Show Copy Compartment: WLS-Workshop

Created: Thu, Jul 16, 2020, 14:14:43 UTC

Route Rules

Add Route Rules Edit Remove

Destination	Target Type	Target
No items found.		
0 Selected		

Add Route Rules

Important: For a route rule that targets a Private IP, you must first enable "Skip Source/Destination Check" on the VNIC that the Private IP is assigned to.

Route Rule

TARGET TYPE: Internet Gateway

DESTINATION CIDR BLOCK: 0.0.0.0

Specified IP addresses: 0.0.0.255.255.255.255 (4,294,967,296 IP addresses)

TARGET INTERNET GATEWAY IN WLS-WORKSHOP (CHANGE COMPARTMENT): WeblogicIG

DESCRIPTION (OPTIONAL): Maximum 255 characters

+ Additional Route Rule

Add Route Rules Cancel

6.7 Create a key store

1. Click on left top hamburger menu and navigate to **security→Vault**



The screenshot shows the Oracle Cloud Applications interface. The left sidebar lists various services under 'Digital Assistant' and 'More Oracle Cloud Services'. The 'Security' section is selected, and its sub-menu includes 'Vault' and 'Web Application Firewall', with 'Vault' being the active option. The main content area displays 'Vaults in AppDev Compartment' with a 'Create Vault' button and a 'Restore Vault' button. A text input field labeled 'Name' is present.

2. Create a vault by name 'wlsworkshop'

The screenshot shows the 'Create Vault' dialog box. At the top, it says 'Vaults in WLS-workshop Compartment'. Below that, a sub-header states: 'Vaults let you centrally manage the encryption keys that protect your data and applications.' A 'Create Vault' button is visible. The main form fields include:

- CREATE IN COMPARTMENT:** A dropdown menu set to 'WLS-workshop' (under 'orascaldecanational01 (root)/WLS-workshop').
- NAME:** An input field containing 'wlsworkshop'.
- MAKE IT A VIRTUAL PRIVATE VAULT:** A checkbox with a descriptive note below it: 'Creates the vault as a dedicated partition on the HSM, sets pricing based on the maximum usage against key limits, and accommodates greater performance needs.' A link 'Learn more' is provided.
- Show Advanced Options:** A link to expand additional settings.

At the bottom of the dialog are 'Create Vault' and 'Cancel' buttons.



3. Click on the vault that you created and create “Master Encryption Keys” with name ‘wlsworkshopkeys’, Key shape length as ‘128 bits’.

The screenshot shows the 'Create Key' dialog box. On the left, there's a sidebar with various navigation links like 'Update Vault from Backend', 'Workshop Details', 'Workshop Overview', 'Workshop Configuration', 'Workshop Metrics', and 'Workshop Logs'. The main area has a title 'Create Key' and several input fields:

- 'CREATE IN COMPARTMENT': A dropdown menu showing 'WLS-workshop'.
- 'NAME': An input field containing 'wlsworkshopkeys'.
- 'KEY SHAPE: ALGORITHM': A dropdown menu showing 'AES'.
- 'KEY SHAPE: LENGTH': A dropdown menu showing '128 bits'.
- 'IMPORT EXTERNAL KEY': A checkbox followed by a descriptive text and a link to 'Importing Keys'.
- 'Show Advanced Options': A link.

At the bottom, there are two buttons: 'Create Key' (highlighted in blue) and 'Cancel'.

4. Click on **Secrets** from left side Resources section and create two secrets, 1 for WebLogic password and 1 for DB System. This will encrypt the password and its OCID will be used while provisioning WebLogic cluster.

For this workshop, you can use sample passwords like this:

Name: wlsssecret

Secret Contents: Weblogic#123

Name: dbsecret

Secret Contents: WEblogic#123#

NOTE: Make sure you give secret names to identify weblogic and database secrets clearly, (for example, wlsssecret, dbsecret). Copy the secret contents you've given in your notepad.



Create Secret

CREATE IN COMPARTMENT

WLS-Workshop
natdcshjumpstartprod (root)/WLS-Workshop

NAME

wlssecret

DESCRIPTION

ENCRYPTION KEY IN WLS-WORKSHOP *(i)* (CHANGE COMPARTMENT)

WLSKey

SECRET TYPE TEMPLATE

Plain-Text

SECRET CONTENTS

Weblogic#123

Show Base64 conversion

Create Secret [Cancel](#)

Search for resources, services, and documentation

US East (Ashburn)

Create Secret

CREATE IN COMPARTMENT

WLS-Workshop
natdcshjumpstartprod (root)/WLS-Workshop

NAME

dbsecret

DESCRIPTION

ENCRYPTION KEY IN WLS-WORKSHOP *(i)* (CHANGE COMPARTMENT)

WLSKey

SECRET TYPE TEMPLATE

Plain-Text

SECRET CONTENTS

WElogic#123#

Show Base64 conversion

Create Secret [Cancel](#)

Once you see both secrets status as 'Active'. **Copy the OCIDs of wlsSecret and dbSecret in your notepad.**
 Select secrets one by one, and copy the OCID.
 These OCIDs will be required while provisioning your WebLogic Marketplace image.



DBSecret



Secret Information Tags

OCID: ...gi7ojq [Show](#) [Copy](#)

Created: Thu, Sep 3, 2020, 10:34:28 UTC

Compartment: orasenatdecanational01 (root)/WLS-workshop

Vault: wlsworkshop

Table Scope

Versions

Versions (1)

Rules

Version Number	Status	Created
1 (/latest)	● Current ⓘ	Thu, Sep 3, 2020, 10:34:28 UTC

☰ ORACLE Cloud Applications > Search for resources, services, and documentation

wlsSecret



Secret Information Tags

OCID: ...3eu3sa [Show](#) [Copy](#)

Created: Thu, Sep 3, 2020, 10:34:05 UTC

Compartment: orasenatdecanational01 (root)/WLS-workshop

Vault: wlsworkshop

Table Scope

Versions

Versions (1)

Rules

Version Number	Status	Created
1 (/latest)	● Current ⓘ	Thu, Sep 3, 2020, 10:34:05 UTC

7 PROVISION THE DATABASE(S) ON OCI

1. Click on the left top hamburger menu and navigate to “Bare Metal, VM, and Exadata”



The screenshot shows the Oracle Cloud Applications Console. The left sidebar navigation includes: Dashboards, Applications Console, Core Infrastructure, Compute, Block Storage, Object Storage, File Storage, Networking, Database, Autonomous Data Warehouse, Autonomous Transaction Processing, Bare Metal, VM, and Exadata, Data Safe, Exadata Cloud@Customer, NoSQL Database, MySQL, Data and AI, Big Data, Digital Assistant, Data Catalog, Data Flow, Data Integration, and Data Science. The main content area displays a table titled "DB Systems in adwc Compartment" with a "Create DB System" button. The table has columns for Display name, State, and Availability Domain, with a note "No items found."

2. Enter all details accordingly as shown in below figure.

The screenshot shows the "Create DB System" wizard, Step 1: DB System Information. It asks for basic information and a compartment. The compartment selected is "WLS-Workshop". The DB system name is "DB2". The availability domain selected is "AD-1". The shape type selected is "Virtual Machine". The shape chosen is "VIM.Standard2.1". The total node count is set to "1".

Select Oracle Database software edition: **Standard Edition**, Choose Storage Management Software: **Logical Volume Manager**





ORACLE Cloud Applications > Search for resources, services, and documentation

Create DB System

1 DB System Information VM.Standard2.1 1 Available Core Count, 1 Node Count **Change Shape**

2 Database Information

Configure the DB system

Total node count: 1 The node count for the selected shape cannot be changed.

Oracle Database software edition: Standard Edition

Choose Storage Management Software

Oracle Grid Infrastructure Uses Oracle's Storage Management solution.

Logical Volume Manager Recommended for quick deployments using Logical Volume Manager. ✓

Configure storage

Available storage (GB): 256 The maximum storage amount is 2560 GB.

Total storage (GB): 712 Total storage is determined by the available storage value you select.

Next **Cancel**

Note: For SSH key pair, you can upload Bob.pub from the unzipped folder weblogic-to-oci



☰ ORACLE Cloud Applications > Search for resources, services, and documentation

Create DB System

1 DB System Information
2 Database Information

Total storage is determined by the available storage value you select.

Add public SSH keys

Upload SSH key files Paste SSH keys

Drop files here. [Or browse.](#)
SSH Public keys (.pub) only

id_rsa.pub x

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](#).

Specify the network information

Virtual cloud network in **WLS-Workshop** ([CHANGE COMPARTMENT](#))
Select a virtual cloud network

Client subnet in **WLS-Workshop** ([CHANGE COMPARTMENT](#))
First select 'Availability Domain' and 'Virtual Cloud Network'
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.

Next [Cancel](#)

Select your VCN, private DB Subnet. Give a Hostname prefix: wlsdb and Click Next.



Create DB System

- 1 DB System Information
- 2 Database Information

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](#)

Specify the network information

Virtual cloud network in **WLS-Workshop** ([CHANGE COMPARTMENT](#))

WLS2

Client subnet in **WLS-Workshop** ([CHANGE COMPARTMENT](#))

wlsdbsubnet(regional)

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 (i)

Hostname prefix

wlsdb

Host domain name

wlsdbsubnet.wls2.oraclevcn.com

Host and domain URL READ-ONLY

wlsdb.wlsdbsubnet.wls2.oraclevcn.com

This value is determined by the hostname prefix and the host domain name.[!\[\]\(17b9000b3c8b530dea9af43d00f004bb_img.jpg\) Show Advanced Options](#)[Next](#)[Cancel](#)

Make a note of **Database Name, PDB Name and Password**. (Note: Password has certain constraints)

For this workshop, use:

Database name: DB2

PDB Name: DB2PDB

Password: WEblogic#123#



☰ ORACLE Cloud Applications > Search for resources, services, and documentation

Create DB System

1 DB System Information Provide information for the initial database

2 Database Information

Database name: DB2

Display all available versions *(i)*

Database version: 19c

PDB name *Optional*: DB2PDB

Create administrator credentials

Username <i>READ-ONLY</i>	sys
Password <i>(i)</i>	*****
Confirm password	*****

Select workload type
The database workload will be configured to use On-Line Transaction Processing (OLTP) because Standard Edition does not support Decision Support System (DSS).

Previous Create DB System Cancel

- Once you enter all necessary details and hit “Create DB System”, you will see DB system getting created. Instance will be ready in 20-25 mins.

Overview » Bare Metal, VM and Exadata » DB Systems

Bare Metal, VM, and Exadata

DB Systems in WLS-workshop Compartment

Create DB System

Display Name	State	Availability Domain	Shape	CPU Core Count	Created	⋮
DBSystem	Available	Zwzz AP-HYDERABAD-1-AD-1	VM Standard2.1	1	Thu, Sep 3, 2020, 10:38:24 UTC	⋮

Showing 1 Item < 1 of 1 >

List Scope

Compartment

WLS-workshop ⋮

8 DEPLOYING THE WEBLOGIC SERVER INFRASTRUCTURE WITH THE OCI MARKETPLACE IMAGE

- For spinning up of WebLogic cluster we need to go to the marketplace which is available at left top hamburger menu. Once you land onto the home screen of the marketplace, search for “WebLogic” then select “Oracle Weblogic Server Standard Edition BYOL” and proceed further.



The screenshot shows the Oracle Cloud Marketplace homepage. On the left, a sidebar lists various service categories: Oracle Cloud Customer, Applications, NoSQL Database, MySQL, Data and AI, Big Data, Digital Assistant, Data Catalog, Data Flow, Data Integration, Data Science, Solutions and Platform, Analytics, Resource Manager, Email Delivery, Application Integration, Monitoring, Developer Services, Marketplace (which is selected), VMware Solution, More Oracle Cloud Services, Platform Services, Classic Data Management Services, and Classic Infrastructure Services. The main content area features a search bar at the top right. Below it, a "Featured" section displays six product cards:

- Fortinet FortiGate Next-Gen Firewall (BYOL)**: Comprehensive Security in One, Simplified Solution. Type: Image | Price: BYOL.
- ORACLE E-Business Suite**: Oracle E-Business Suite. Create, manage and configure Oracle E-Business Suite... Type: Image | Price: Free.
- Altair PBS Professional**: Workload Manager and Batch Queueing Software. Type: Image | Price: BYOL.
- Aviatrix Secure Networking Platform**: Multi-Cloud Cross-Region Aviatrix Controller (PayAsYouGo version). Region Restricted: US-only. Type: Stack | Price: Paid.
- ORACLE E-vSBC**: Oracle Enterprise Virtual Session Border Controller. Enabling highly secure and reliable voice, video and unified... Type: Image | Price: BYOL.
- Rackware Migration Manager (RMM)**: Migrate running workloads into Oracle Cloud Infrastructure. Region Restricted: US-only. Type: Image | Price: Paid.

Below this, another section titled "All Applications" shows three more cards:

- Palo Alto Networks VM-Series**: Applications. Deployed Applications. Reports. Type: Image | Price: BYOL.
- ORACLE Database Sharding**: Oracle Sharding enables globally distributed, linearly scalable... Type: Stack | Price: Free.

The screenshot shows the Oracle Cloud Marketplace interface. The top navigation bar includes the Oracle Cloud logo, a 'Applications >' link, a search bar with placeholder text 'Search for resources, services, and documentation', and a 'US East (Ashburn)' location indicator along with various global navigation icons.

The main content area is titled 'Marketplace' and displays search results for 'weblogic'. A search bar at the top of the results page contains the query 'weblogic'. Below the search bar, there is a sidebar with filters for 'All Applications', 'Deployed Applications', and 'Reports'. The 'Filters' section contains dropdown menus for 'TYPE' (set to 'Any'), 'PUBLISHER' (set to 'Any'), 'CATEGORY' (set to 'Any'), and 'PRICE' (set to 'Any').

The search results are categorized under 'All Applications' and show six items:

- ORACLE Enterprise Data Quality**
Enterprise Data Quality
- ORACLE WebLogic**
WebLogic
- ORACLE WebLogic Suite BYOL**
WebLogic Suite BYOL
- ORACLE WebLogic Server Standard Edition BYOL**
WebLogic Server Standard Edition BYOL
- ORACLE WebLogic Suite UCM**
WebLogic Suite UCM
- ORACLE WebLogic Server Enterprise Edition UCM**
WebLogic Server Enterprise Edition UCM

Each result card includes a brief description and a 'Type: Stack | Price: BYOL' label.

2. Select the Oracle WebLogic Server Standard Edition BYOL version and compartment you want to create the cluster in and proceed by clicking Launch Stack



The screenshot shows the Oracle Cloud Marketplace interface. At the top, there's a navigation bar with 'ORACLE Cloud' and 'Applications >'. A search bar says 'Search for resources, services, and documentation'. On the right, it shows 'US East (Ashburn) v' and various icons for notifications and user profile.

The main content area displays a product listing for 'Oracle WebLogic Server Standard Edition BYOL'. The listing includes:

- Provider:** ORACLE WebLogic
- Type:** Stack
- Version:** WLS 12.2.1.4.200414...
- Compartment:** WLS-Workshop
- Description:** Accelerate WebLogic deployment in Oracle Cloud Infrastructure. Quickly provision an Oracle WebLogic Server domain in Oracle Cloud Infrastructure for developing and deploying Java Enterprise Edition (Java EE) applications.
- Category:** Application Development
- Software Price per OCPU:** BYOL (Bring Your Own License)
- Note:** There are additional fees for the infrastructure usage. ⓘ
- Checklist:** I have reviewed and accept the [Oracle Standard Terms and Restrictions](#).
- Launch Stack** button.

Below the main listing, there are tabs for 'Overview' (which is selected), 'Provider', 'More Apps', and 'Usage Instructions'. The 'Overview' tab contains sections like 'App by Oracle', 'Support', 'Version Details', and 'System Requirements'.

3. Give a name to your cluster as WebLogicCluster



☰ ORACLE Cloud Applications > Search for resources, services, and documentation

Create Stack

1 Stack Information

[Configure Variables](#)

[Review](#)

Your application will launch as part of a stack that includes the infrastructure resources required to ensure that the application deploys and runs properly.

NAME OPTIONAL
WeblogicCluster

DESCRIPTION OPTIONAL

CREATE IN COMPARTMENT
WLS-Workshop
natdcshjumpstartprod (root)/WLS-Workshop

TERRAFORM VERSION
0.12.x

TAGS

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-for...)		

[Next](#) [Cancel](#)

- Resource name prefix: wls will be the name given to your compute node (managed server/admin server)

Select compute shape that you want your WebLogic to be **VM.Standard2.1**

Paste public key to access your compute, **copy and paste the contents of Bob.pub** (from weblogic-to-oci folder)

Select AD, **username: weblogic** and password (**password will be the OCID of WebLogic secret** that you created in [step 6.7](#)) , **Node count : 2**



Create Stack

Stack Information

Configure Variables **2**

Review **3**

WebLogic Server Instance

RESOURCE NAME PREFIX
wls
The names of all compute and network resources will begin with this prefix. It can only contain letters or numbers and must begin with a letter.

WEBLOGIC SERVER SHAPE
VM.Standard2.1
The shape for all WebLogic Server compute instances

SSH PUBLIC KEY
ssh-rsa AAAAB3NzaC1yc2EAAAQABAAQCa1KefarB84UNRstxKZVEE0TVc
Use the corresponding private key to access the WebLogic Server compute instances

WEBLOGIC SERVER AVAILABILITY DOMAIN
CISK:US-ASHBURN-AD-1
The name of the availability domain in which to create the WebLogic Server compute instances

WEBLOGIC SERVER NODE COUNT
2
The initial number of WebLogic Server compute instances, and also the number of managed servers in the domain. The maximum is 8, except for 11g Standard Edition which is 4.

WEBLOGIC SERVER ADMIN USER NAME
weblogic
The name of the administrator in the WebLogic Server domain

SECRETS OCID FOR WEBLOGIC SERVER ADMIN PASSWORD

[Back](#) [Next](#) [Cancel](#)

[Terms of Use and Privacy](#) [Cookie Preferences](#)

5. Choose your VCN you created earlier and the subnet as well. **Select Provision Load Balancer.** Select the Load Balancer Subnet you created earlier.



Create Stack

Stack Information

2 Configure Variables

3 Review

SUBNET STRATEGY	Use Existing Subnet
SUBNET TYPE	Use Public Subnet
SUBNET SPAN	Regional Subnet
EXISTING SUBNET FOR WEBLOGIC SERVER <i>i</i>	wlsnodesubnet (Regional)
An existing subnet to use for WebLogic Server compute instances. This subnet must already be present in the chosen VCN.	
<input checked="" type="checkbox"/> PROVISION LOAD BALANCER	Provision a load balancer in Oracle Cloud Infrastructure to distribute application traffic to the managed servers in the domain
EXISTING SUBNET FOR LOAD BALANCER <i>i</i>	wlslbsubnet (Regional)
An existing subnet to use for the load balancer. This subnet must already be present in the chosen VCN.	
LOAD BALANCER SHAPE OPTIONAL	400Mbps
The shape for Load balancer	

[Back](#) [Next](#) [Cancel](#)

- Select option “Provision with JRF”, and then you get option to select the DBSystem you’ve created earlier.





Create Stack

Stack Information

Configure Variables

Review

Identity Cloud Service (IDCS) Integration

ENABLE AUTHENTICATION USING IDENTITY CLOUD SERVICE
Authenticate WebLogic Server users against Oracle Identity Cloud Service (IDCS). If not selected, WebLogic Server uses the local identity store.

OCI Policies

OCI POLICIES
Create policies to read Secrets from Vault and manage Autonomous Transaction Processing Database (if applicable). Unselecting this option is intended for Advanced Users only. Please make sure to read and follow the documentation to create necessary groups and policies before unselecting this field.

Provision with JRF

PROVISION WITH JRF
Deploy the Java Required Files (JRF) components and create the JRF schemas on the selected database

Database

DATABASE STRATEGY

Select an option

Choose the database strategy for WebLogic Server

[Back](#) [Next](#) [Cancel](#)

[Terms of Use and Privacy](#) [Cookie Preferences](#)

Choose your DB system you created earlier and provide DB details as shown in below screen.

Select Database Strategy as **Database Strategy**,

Select the **DB from dropdown** in DB System,

Deselect ‘Create a DB Security List’,

Select your **DB Home from dropdown**,

Version: **19**,

Database in the DB System: **DB2 (from dropdown menu)**,

Database Administrator: **SYS**

Secret **OCID of secret for database administrator password** in [step 6.7](#)

Database Listener Port: **1521**



Stack Information
2 Configure Variables
3 Review

DATABASE STRATEGY

Database System

Choose the database strategy for WebLogic Server

DB SYSTEM COMPARTMENT

WLS-workshop

The compartment in which the DB System is found

DB SYSTEM

DBSystem

The Oracle Cloud Infrastructure DB System to use for this WebLogic Server domain.

DB SYSTEM NETWORK COMPARTMENT

WLS-workshop

The compartment in which the DB System Virtual Cloud Network is found.

DB SYSTEM NETWORK

WLS

An existing Virtual Cloud Network (VCN) used by DB System. If the selected VCN is different from WebLogic Server VCN then local VCN peering will be setup. When using VCN peering ensure that the VCNs being peered have non-overlapping CIDR blocks.

CREATE DB SECURITY LIST
Add a security list to the DB subnet that allows connections from the WebLogic Server subnet

DATABASE HOME IN THE DB SYSTEM

dbhome20200903103824

The database home within the DB System

VERSION OF DATABASE HOME IN THE DB SYSTEM OPTIONAL

19

The version of database home within the DB System



Create Stack

- [Stack Information](#)
- Configure Variables**
- [Review](#)

VERSION OF DATABASE HOME IN THE DB SYSTEM - OPTIONAL

19

The version of database home within the DB System

DATABASE IN THE DB SYSTEM

DB2

The database within the DB System in which to provision the schemas for a JRF-enabled WebLogic Server domain

PDB

DB2PDB

The name of the pluggable database (PDB) in which to provision the schemas for a JRF-enabled WebLogic Server domain. This is required for Oracle Database 12c or later.

DATABASE ADMINISTRATOR

SYS

The name of a database user with database administrator (DBA) privileges

SECRETS OCID FOR DATABASE ADMINISTRATOR PASSWORD

ocid1.vaultsecret.oc1.ap-hyderabad-1.amaaaaaalbfmicqao6fyvv2d676qaclvqcno3ocm:

The Secrets OCID that contains password for the database administrator

DATABASE LISTENER PORT OPTIONAL

1521

The Listener Port for the Database

Tags

DEFINED TAG KEY OPTIONAL

The name of a predefined tag (<namespace>.<key>) to assign to the resources created in this stack. For example.

[Back](#)

Next

[Cancel](#)



The screenshot shows the Oracle Cloud 'Create Stack' interface. At the top, there are three tabs: 'Stack Information' (checked), 'Configure Variables' (checked), and 'Review' (highlighted with a blue circle). A note on the right says: 'Verify your configuration variables, and then create your stack. The apply job will automatically run to create resources specified in the configuration. Due to limited space, we show only variables without default values or that you edited.' Below the tabs are two sections: 'Stack Information' and 'WebLogic Server Instance'. The 'Stack Information' section contains the following details:

Name	WeblogicCluster
Description	
Compartment	...lkpnia Show Copy
Terraform version	0.12.x

The 'WebLogic Server Instance' section contains the following details:

Resource Name Prefix	workshop
WebLogic Server Shape	VM.Standard2.1
SSH Public Key	...180321 Show Copy
WebLogic Server Availability Domain	CISK:US-ASHBURN-AD-1
Secrets OCID for WebLogic Server Admin Password	...f5nfyq Show Copy

At the bottom, there are three buttons: 'Back', 'Create' (highlighted in blue), and 'Cancel'.

7. After confirming the details, click Create. You will see that terraform will kick start the provisioning of the cluster. Keep following the logs, it will step by step guide you on the status of provisioning.

Once it is provisioned, note down the Public IP from the output in your notepad. This will be your **WebLogic Admin Server Public IP**.



Applications > Search for resources, services, and documentation US East (Ashburn) ▾

```

module.provisioners.null_resource.status_check[0] (remote-exec): SSH Agent: false
module.provisioners.null_resource.status_check[0] (remote-exec): Checking Host key: false
module.provisioners.null_resource.status_check[0] (remote-exec): Connected!
module.provisioners.null_resource.status_check[0] (remote-exec): <Jun 22, 2020 01:48:21 PM GMT> <INFO> <check_provisioning_status.py> <(host:spw-wls-0.wlworkshop.wlworkshop.oraclevcn.com) - <WLSC-VM-INFO-0020> : Last checked module.provisioners.null_resource.status_check[0]: Creation complete after 9m36s [id=17469506676142015]
module.provisioners.null_resource.cleanup[0]: Creating...
module.provisioners.null_resource.cleanup[0] (remote-exec): Provisioning with 'remote-exec'...
module.provisioners.null_resource.cleanup[0] (remote-exec): Connecting to remote host via SSH...
module.provisioners.null_resource.cleanup[0] (remote-exec): Host: 129.213.37.24
module.provisioners.null_resource.cleanup[0] (remote-exec): User: opc
module.provisioners.null_resource.cleanup[0] (remote-exec): Password: false
module.provisioners.null_resource.cleanup[0] (remote-exec): Private key: true
module.provisioners.null_resource.cleanup[0] (remote-exec): Certificate: false
module.provisioners.null_resource.cleanup[0] (remote-exec): SSH Agent: false
module.provisioners.null_resource.cleanup[0] (remote-exec): Checking Host key: false
module.provisioners.null_resource.cleanup[0] (remote-exec): Connected!
module.provisioners.null_resource.cleanup[0] (remote-exec): <Jun 22, 2020 01:48:21 PM GMT> <INFO> <delete_keys.sh> <(host:spw-wls-0.wlworkshop.wlworkshop.oraclevcn.com) - <WLSC-VM-INFO-0142> : Running the delete keys
module.provisioners.null_resource.cleanup[0] (remote-exec): <Jun 22, 2020 01:48:23 PM GMT> <INFO> <delete_keys.sh> <(host:spw-wls-0.wlworkshop.wlworkshop.oraclevcn.com) - <WLSC-VM-INFO-0143> : Executed the delete keys
module.provisioners.null_resource.cleanup[0]: Creation complete after 15s [id=5667869246731601951]

Apply complete! Resources: 12 added, 0 changed, 0 destroyed.

Outputs:

Bastion_Instance =
Fusion_Middleware_control_Console = https://129.213.37.24:7002/em
Is_VCN_Peered = false
Load_Balancer_Ip = [
  ...
]
Loadbalancer_Subnets_Id = []
Sample_Application = http://129.213.37.24:7003/sample-app
Sample_Application_protected_by_IDCS =
Virtual_Cloud_Network_CIDR =
Virtual_Cloud_Network_Id = ocid1.vcn.oc1.iad.aaaaaaaaazxs35qaavcw2sc4vznpilgiuv3dmrm5gshiqsubg165f5nfef77hva
WebLogic_Server_Administration_Console = https://129.213.37.24:7002/console
Weblogic_Edition = SUITE
Weblogic_Instances = [
  "instance_id": "ocid1.instance.oc1.iad.anuuc1jszx35qacuk6t04kpyc7vkf7amddq3qlu6dptuaeq7dx:bhu4dja",
  "Instance name": "spw-wls-0",
  "Private IP": "10.0.0.4",
  "Public IP": "129.213.37.24"
]
Weblogic_Subnet_Id = [
  "ocid1.subnet.oc1.iad.aaaaaaaa3fa073wybusxl33gtwyc3q4l445zz2gh1mrg2hlt35h3h4jkcq"
]
Weblogic_Version = 12.2.1.4 Suite Edition (JRF with OCI DB)

```

9 MIGRATE ON-PREMISES DATABASE(S)

Before you move on to the application deployment, you'll need the packaged files used for sample deployment.

1. Go to OCI console. Open your 'Cloud Shell'.

The screenshot shows the Oracle Cloud console homepage. At the top right, there is a yellow box highlighting the 'Cloud Shell' icon (a terminal window icon). The main area displays various quick actions like Compute, Networking, and Object Storage, along with sections for Start Exploring, Key Concepts and Terminology, and Introduction to APEX. On the right side, there is an Account Center with User Management and Billing options, and a What's New section listing recent updates.



Bare Metal, VM and Exadata » DB Systems

DB Systems

Standalone Backups

List Scope

Compartment: WLS-Workshop

Filters

State: Any state

Create DB System

Display name	State	Availability Domain	Shape	CPU Core Count	Created
DB2	Available	CISK:US-ASHBURN-AD-1	VM.Standard2.1	1	Thu, Jul 16, 2020, 16:05:37 UTC
SOW	Available	CISK:US-ASHBURN-AD-1	VM.Standard2.1	1	Mon, Jun 22, 2020, 09:49:29 UTC

Showing 2 Items < 1 of 1

Welcome to Oracle Cloud Shell.

Your Cloud Shell machine comes with 50GB of storage for your home directory. Your Cloud Shell (machine and home directory) are located in: US East (Ashburn). Type 'help' for more info.

```
divya_k_k@cloudshell: ~ (us-ashburn-1)$
```

2. Let's create a private key file to SSH into WebLogic Admin server from our cloud shell.

```
$ vi ~/.ssh/Bob
```

(Get into Insert mode of vi editor, press alphabet 'I' key)

Now, from where you have unzipped the weblogic-to-oci folder on your local machine, open file 'Bob' (the one with no extension) in your notepad. Copy the entire content of the file, and paste it in your cloud shell file. And save the file.

Cloud Shell

```
-----BEGIN RSA PRIVATE KEY-----
MIIEogIBAAQCAQEAs2t5nn2qwfOFDUbLcSmVRBNE1X8pxyo+aw6be5n4xIHsvrYe
VevJqPLDbLox7xdQRVD2s2+kknJy4JViJ4VK/NdPoCUT1zGBLQR79g3Ef510g7T
p3CmPRA1z34GgJ6g7TE/99jGrMC8114yZvoGQJB8sw0Km1a0zV5y1tyxbAtt9L
12XNJO8pcNgtk052n1DQbvr8SAB//+4bH2JNPufPeNTQsFNdtvn0euUJiW82CRT1
bw2Ka4hVbgI9zD05WDVm11D819Iatz:jo+CqoQnOrgy61ldvLmQZ4eTdE1Cmk7
BzKH72b5hQuA/DD/2vhC8johT8puPP+35V2+PQIDAQABAoIBAFH1N4Ngok0AoYmk
CjDCLwYYuy4uQkamfHtYcaFwibkosArZwYmtEkxymVwXFp85tvlG1JyIDozf73p
auATI1a2T6TKdXUfsVFBFGR8XwOevkIbNchp6nZAXmRPDEdaruzKtg7QfkjRrjEk
Xy+9Dy0qGPq14eGryFDkKz5z+RBqq20XavkXWwmrn1VGvZK00+ZAR17GZpJ9EY
p7hovbCB0W3/G/9M152URjwzYj1KGaWujN+kP9qfc2BsPwiU4Yuxv7xMyVqy/LuQ
FbtuJ8wAZT+l2hSO8PoVgVlEObsSrR10/U7a3XB3stZlIWuy1bd1Zje/9fa68L
0hpf2EcgYE3q0yx3/wGviG1j8W4z6XyIG4XyeYFZhmp6d6vq8MejAeX2LR2CC
0Su90e06NbU1xaPqrpCpQULW8y4dJbue91T5zficQMixLgP1Mi45q+W4uqfgX
Ui7W8ayaE0sXoZynnpMuoVkJC1KbmQhXc3JwZ/T13jhcgVgo8x1kCgYEazKts
iuDPx90FtvXJbN2h6xVtK/F8101xjza+jQYFE4fRH4XfmNW8gEb9XhtwQNnbE4
```

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Instructions for vi Text Editor: Once you've started vi, press "I" key to insert, and edit the necessary changes. To save the content, press "Esc" key, then type ":wq" and press "Enter" key.

Change the required permissions of the file by following command.

```
$ chmod 400 ~/.ssh/Bob
```



- Create a folder, change your PDB name in createSchema.sql file and run the dataimport shell script.

Instructions for vi Text Editor: Once you've started vi, press "I" key to insert, and edit the necessary changes. To save the content, press "Esc" key, then type ":wq" and press "Enter" key.

```
$ mkdir wlsworkshop
$ cd wlsworkshop
$ git clone https://github.com/kashyapdivya93/WebLogic-to-oci.git
$ chmod 400 WebLogic-to-oci/Bob
$ vi WebLogic-to-oci/createSchema.sql
(Edit the CONTAINER=<PDB_NAME>
ALTER SESSION SET CONTAINER=DB2PDB;
$ cp WebLogic-to-oci/databasemigration.sh dataimport.sh
$ vi dataimport.sh
```

Edit these:

BASTION_IP=<WLS SERVER IP>,
TARGET_DB_HOST= <DB PRIVATE IP>.

And Save your dataimport.sh file. To save the content, press "Esc" key, then type ":wq" and press "Enter" key.

You can find the WLS SERVER Public IP from step 8.7, from the stack trace output.

OCI Console Menu > Resource Manager > Stack > Select your created stack > Select your job > Scroll all the way down to the end of the Logs > Note the "Public IP" from Weblogic server information.

DB PRIVATE IP from **OCI Console Menu > Bare Metal, VM, Exadata > DB System**. Select your DB, Click on "Nodes" from left section and copy your DB instance Private IP.

Name	State	Public IP Address	Floating IP Address	Private IP Address & DNS Name	Fault Domain
wlswb	Available	-	-	10.0.5.2 (wlswb... Show Copy)	FAULT-DOMAIN-2

Displaying 1 Node < 1 of 1 >

```
BASTION_IP=152. . . .87
TARGET_DB_HOST=10. . . .52
scp -i ~/wlsworkshop/WebLogic-to-oci/Bob_opc@[BASTION_IP]:/home/opc/.ssh/
ssh -i ~/wlsworkshop/WebLogic-to-oci/Bob_opc@[BASTION_IP] "sudo chmod 400 /home/opc/.ssh/authorized_keys"
scp -i ~/wlsworkshop/WebLogic-to-oci/Bob_opc@[BASTION_IP] ~/wlsworkshop/WebLogic-to-oci/createSchema.sql opc@[BASTION_IP]:/home/opc/
scp -i ~/wlsworkshop/WebLogic-to-oci/Bob_opc@[BASTION_IP] "ProxyCommand ssh -i %h:10.0.5.2:22 %p@%h:22" -i ~/wlsworkshop/WebLogic-to-oci/createSchema.sql opc@[TARGET_DB_HOST]:/home/opc/
ssh -i ~/wlsworkshop/WebLogic-to-oci/Bob_opc@[BASTION_IP] "ProxyCommand ssh -i %h:10.0.5.2:22 %p@%h:22" -i ~/wlsworkshop/WebLogic-to-oci/createSchema.sql opc@[TARGET_DB_HOST] "sudo chown -R oracle:oinstall /home/opc/createSchema.sql && sudo rm -rf /home/oracle/createSchema.sql && sudo mv /home/opc/createSchema.sql /home/oracle/"
ssh -i ~/wlsworkshop/WebLogic-to-oci/Bob_opc@[BASTION_IP] "ProxyCommand ssh -i %h:10.0.5.2:22 %p@%h:22" -i ~/wlsworkshop/WebLogic-to-oci/createSchema.sql opc@[TARGET_DB_HOST] "sudo ls -a && sudo su - oracle bash -c \"sqlplus\""
```



```
$ sh dataimport.sh
(the prompt will throw warnings to add the host in known hosts, type 'yes' and hit 'Enter')
Enter user name: sys as sysdba
Password: <your database password>
SQL> @createSchema.sql
```

```
divya_k_ka@cloudshell:wlsworkshop (us-ashburn-1)$ vi dataimport.sh
divya_k_ka@cloudshell:wlsworkshop (us-ashburn-1)$ sh dataimport.sh
createSchematest.sql
createSchematest.sql
Killed by signal 1.
Killed by signal 1.
.
..
.bash_history
.bash_logout
.bash_profile
.bashrc
createSchema.sql
.kshrc
.ssh

SQL*Plus: Release 19.0.0.0.0 - Production on Fri Jul 17 13:46:00 2020
Version 19.7.0.0.0

Copyright (c) 1982, 2020, Oracle. All rights reserved.

Enter user-name: sys as sysdba
Enter password: ABKK_tt_33ABKG_tt_33

Connected to:
Oracle Database 19c Standard Edition 2 Release 19.0.0.0.0 - Production
Version 19.7.0.0.0

SQL>
```

The screenshot shows the Oracle Cloud Cloud Shell interface. The terminal window displays the execution of the dataimport.sh script, which creates multiple rows in a schema. The output shows 19 rows being created, followed by revoke and grant succeeded messages, and finally a disconnection message.

```
1 row created.
Revoke succeeded.
Grant succeeded.
Grant succeeded.
Disconnected from Oracle Database 19c Standard Edition 2 Release 19.0.0.0.0 - Production
Version 19.7.0.0.0
Killed by signal 1.
divya_k_ka@cloudshell:wlsworkshop (us-ashburn-1)$
```

The script will get executed and you'll be able to see the result as above.



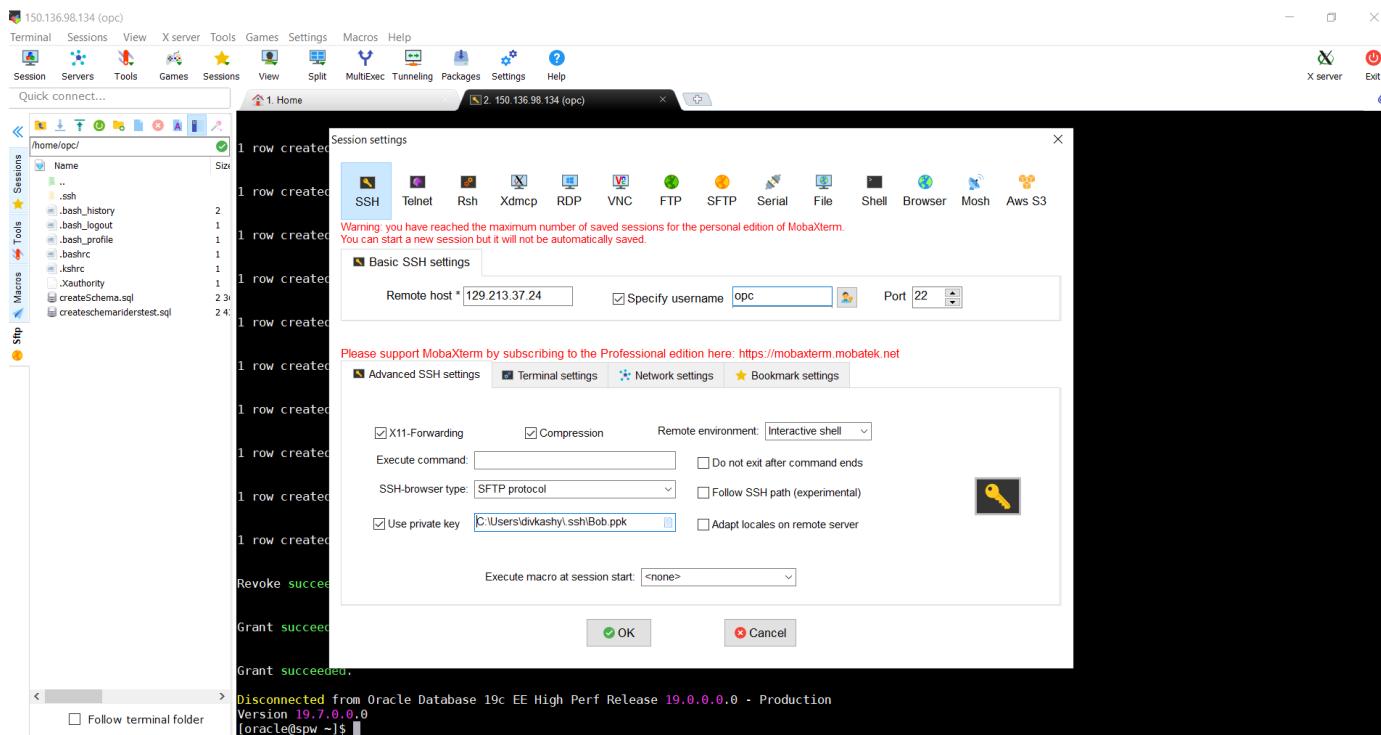
10 MIGRATE AN APPLICATION TO WEBLOGIC SERVER

10.1 SSH to WLS instance, put java app .ear file, change permissions

1. Open a new session for SSH connection to your WebLogic instance in MobaXterm, you'll need **WLS SERVER IP**

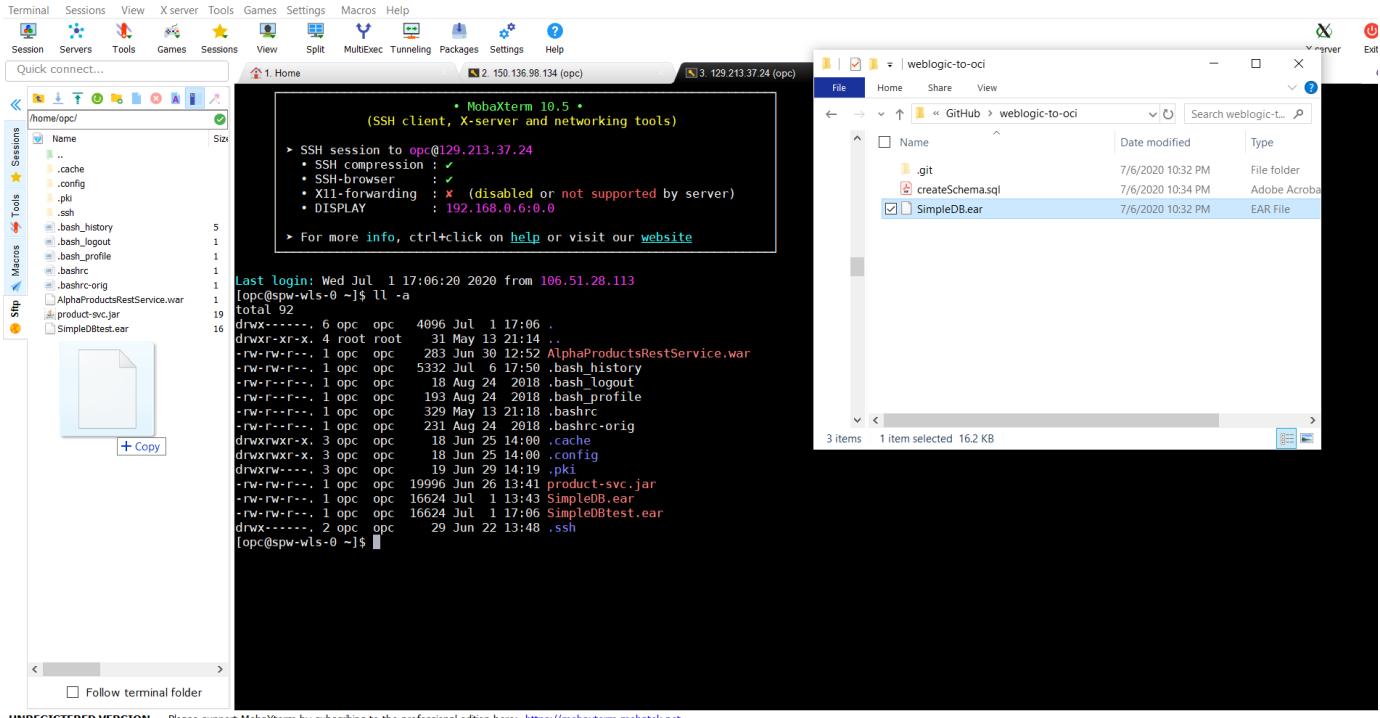
username: opc

Private key (Bob / Bob.ppk will be compatible for MobaXterm, Bob.ppk is for Putty sessions)



2. Next, you need to drag and drop 'SimpleDB.ear' file at /home/opc location.





3. Move the file to the WebLogic domain directory and change the permissions for 'oracle' user.
Please note, you may have a different domain name depending on what you chose at the time of WebLogic instance creation.

```
$ cd /u01/data/domains/
$ ls
You can see your domain directory folder name
$ cd <your-domain-folder>
$ sudo cp /home/opc/SimpleDB.ear .
$ sudo chown -R oracle:oracle /u01/data/domains/<your domain name>/SimpleDB.ear
$ ll -a
```

```
-rw-rw-r--. 1 opc  opc 16624 Jul  1 13:43 SimpleDB.ear
-rw-rw-r--. 1 opc  opc 16624 Jul  1 17:06 SimpleDBtest.ear
drwx-----. 2 opc  opc   29 Jun 22 13:48 .ssh
[opc@spw-wls-0 ~]$ cd /u01/data/domains/spw_domain/
[opc@spw-wls-0 spw_domain]$ sudo cp /home/opc/SimpleDB.ear .
[opc@spw-wls-0 spw_domain]$ sudo chown -R oracle:oracle /u01/data/domains/spw_domain/SimpleDB.ear
[opc@spw-wls-0 spw_domain]$ ll -a
total 12096
drwxrwxr-x. 22 oracle oracle   4096 Jul  1 17:06 .
drwxrwxr-x.  3 oracle oracle   4096 Jun 22 13:41 ..
-rw-r--r--.  1 oracle oracle 12204761 Jun 30 11:14 AlphaProductsRestServiceTest.war
-rw-r--r--.  1 oracle oracle   283 Jun 30 12:53 AlphaProductsRestService.war
drwxr-x---.  2 oracle oracle   4096 Jun 22 13:42 autodeploy
drwxr-x---.  2 oracle oracle   4096 Jun 22 13:44 backup_config
```



```

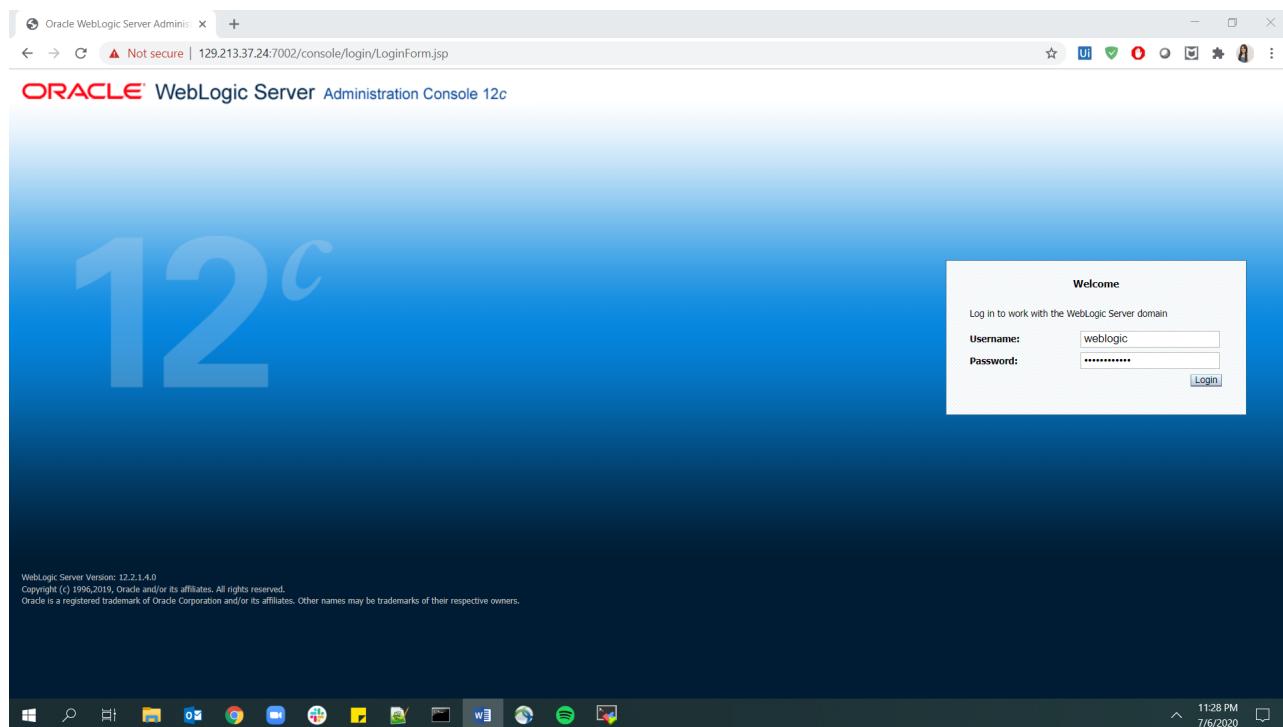
-rw-r----. 1 oracle oracle      0 Jun 22 13:43 .jrf.domain
-rw-r----. 1 oracle oracle      0 Jun 22 13:43 .jrf.domain-ws.core_template
-rw-r----. 1 oracle oracle      0 Jun 22 13:43 .jrf.wsm.domain
-rw-r----. 1 oracle oracle      0 Jun 22 13:43 .jrf.wsm.domain.pm
drwxr-x--. 2 oracle oracle    4096 Jun 22 13:42 lib
drwxr-x--. 2 oracle oracle    4096 Jun 22 13:44 nodemanager
-rw-r----. 1 oracle oracle      0 Jun 22 13:43 .opss.jrf.domain
drwxr-x--. 3 oracle oracle    4096 Jun 22 13:44 orchestration
drwxr-x--. 2 oracle oracle    4096 Jul  1 17:38 original
drwxr-x--. 2 oracle oracle    4096 Jul  1 17:38 pending
drwxr-x--. 3 oracle oracle    4096 Jun 29 17:31 plan
-rw-r----. 1 oracle oracle    2732 Jul  1 17:08 Plan.xml
-rwxrwxr-x. 1 oracle oracle 19996 Jun 26 13:42 product-svc.jar
-rw-rw-r--. 1 oracle oracle      0 Jun 22 13:48 provCompletedMarker
drwxr-x--. 2 oracle oracle    4096 Apr 26 2019 resources
drwxr-x--. 2 oracle oracle    4096 Jun 22 13:44 security
drwxr-x--. 5 oracle oracle    4096 Jun 25 14:19 servers
-rw-r--r--. 1 oracle oracle   16624 Jul  6 17:52 SimpleDB.ear
-rw-r--r--. 1 oracle oracle   16624 Jul  1 17:06 SimpleDBtest.ear
-rw-r----. 1 oracle oracle    772 Jun 22 13:44 startManagedWebLogic_readme.txt
-rwxr-x--. 1 oracle oracle    244 Jun 22 13:43 startWebLogic.sh
drwxr-x--. 3 oracle oracle    4096 Jun 22 13:43 store
drwxr-x--. 7 oracle oracle    4096 Jun 22 13:46 sysman
drwxr-x--. 2 oracle oracle    4096 Jul  1 17:38 tmp
[opc@spw-wls-0 spw_domain]$
```

Ort MohaXterm hv subscribing to the professional edition here: <https://mohaXterm.mohatek.net>

You can verify the permissions for the file in the domain directory.

10.2 Create a JDBC data source in WLS domain

1. Login to your WebLogic console page with the credentials you gave at the time of creation.
The console URL can be taken from from the Stack Logs, <https://<WLS-IP>:7002/console>



Once you are logged in, you'll be able to see the WebLogic Server Administration Console.

2. Click the 'Lock & Edit' button from top left corner to add, modify or delete items in the domain.



ORACLE WebLogic Server Administration Console 12c

Change Center

View changes and restarts
Click the **Lock & Edit** button to modify, add or delete items in this domain.

Lock & Edit

Release Configuration

Domain Structure

- wls_domain
 - + Domain Partitions
 - + Environment
 - Deployments
 - + Services
 - Security Realms
 - + Interoperability
 - + Diagnostics

How do I...

- Search the configuration
- Use the Change Center
- Record WLST scripts
- Change Console preferences
- Manage Console extensions
- Monitor servers

System Status

Retrieving Health Data ...

Failed (0)
Critical (0)
Overloaded (0)

Home

Home Page

Information and Resources

Helpful Tools

- Configure applications
- Configure GridLink for RAC Data Source
- Configure a Dynamic Cluster
- Recent Task Status
- Set your console preferences
- Oracle Enterprise Manager

Domain Configurations

Domain

- Domain

Domain Partitions

- Domain Partitions
- Partition Work Managers

Environment

- Servers
- Clusters
 - Server Templates
 - Migratable Targets
- Coherence Clusters
- Machines
- Virtual Hosts
- Virtual Targets
- Work Managers
- Concurrent Templates
- Resource Management

General Information

- Common Administration Task Descriptions
- Read the documentation
- Ask a question on My Oracle Support

Resource Group Templates

- Resource Group Templates

Resource Groups

- Resource Groups

Deployed Resources

- Deployments

Services

- Messaging
 - JMS Servers
 - Store-and-Forward Agents
 - JMS Modules
 - Path Services
 - Bridges
- Data Sources
- Persistent Stores
- XML Registries

3. From left-panel, under your domain structure, select 'Services >> Data Sources'



ORACLE WebLogic Server Administration Console 12c

The screenshot shows the Oracle WebLogic Server Administration Console interface. On the left, there's a sidebar with 'Change Center' (View changes and restarts, Lock & Edit, Release Configuration), 'Domain Structure' (wls_domain, Domain Partitions, Environment, Deployments, Services, Messaging, Data Sources - highlighted with a yellow box), and 'How do I...' (Create JDBC generic data sources, Create JDBC GridLink data sources, Create JDBC multi data sources, Create UCP data sources, Create Proxy data sources). Below these are 'System Status' and 'Health of Running Servers as of 8:06 PM' (Failed 0, Critical 0, Overloaded 0, Warning 0, OK 3).

The main content area is titled 'Summary of JDBC Data Sources' (Configuration tab selected). It contains a table of data sources:

<input type="checkbox"/>	Name	Type	JNDI Name
<input type="checkbox"/>	LocalSvcTblDataSource	Generic	jdbc/LocalSvcTblDataSource
<input type="checkbox"/>	mds-owsm	Generic	jdbc/mds/owsm
<input type="checkbox"/>	opss-audit-DBDS	Generic	jdbc/AuditAppendDataSource
<input type="checkbox"/>	opss-audit-viewDS	Generic	jdbc/AuditViewDataSource
<input type="checkbox"/>	opss-data-source	Generic	jdbc/OpssDataSource
<input type="checkbox"/>	WLSSchemaDataSource	Generic	jdbc/WLSSchemaDataSource

4. Select 'New' >> 'Generic Data Source'.



Summary of JDBC Data Sources

A JDBC data source is an object bound to the JNDI tree that provides database connectivity through a pool of JDBC connections. Applications interact with the database through the JDBC interface.

This page summarizes the JDBC data source objects that have been created in this domain.

Customize this table

Data Sources (Filtered - More Columns Exist)

	Type	JNDI Name
Generic Data Source	Generic	spwds
GridLink Data Source	Generic	JNDITEST
Multi Data Source	Generic	jdbc/LocalSvcTblDataSource
Proxy Data Source	Generic	jdbc/mds/owsm
UCP Data Source	Generic	jdbc/AuditAppendDataSource
opss-audit-DBDS	Generic	jdbc/AuditViewDataSource
opss-data-source	Generic	jdbc/OppsDataSource
WLSSchemaDataSource	Generic	jdbc/WLSSchemaDataSource

5. Enter the required fields for your JDBC Data Source connection.

Name: **JDBCConnection**

JNDI Name: **jdbc.JDBCConnectionDS**

Click 'Next'.

Create a New JDBC Data Source

JDBC Data Source Properties

The following properties will be used to identify your new JDBC data source.

* Indicates required fields

What would you like to name your new JDBC data source?

*** Name:** JDBCConnection

What scope do you want to create your data source in?

Scope: Global

What JNDI name would you like to assign to your new JDBC Data Source?

JNDI Name: jdbc.JDBCConnectionDS

What database type would you like to select?

Database Type: Oracle

6. Select the 'Database Driver (Thin) for Service connections'. Click 'Next'.



The screenshot shows the Oracle WebLogic Server Administration Console. On the left, there's a 'Domain Structure' tree with nodes like 'spw_domain', 'Domain Partitions', 'Environment', 'Deployments', and 'Services'. Under 'Services', 'Data Sources' is expanded. On the right, the main panel displays the 'Create a New JDBC Data Source' wizard. Step 1, 'JDBC Data Source Properties', is shown. It has fields for 'Database Type' (set to 'Oracle') and 'Database Driver' (set to '*Oracle's Driver (Thin) for Service connections; Versions: Any'). Navigation buttons at the bottom include 'Back', 'Next', 'Finish', and 'Cancel'.

7. Keep the default values, check the 'Support Global Transaction' option.
Select 'One Phase Commit'.
Click 'Next'.

The screenshot shows the 'Create a New JDBC Data Source' wizard, step 2, 'Transaction Options'. It asks if the data source supports global transactions. The checkbox 'Supports Global Transactions' is checked. Below it, three options are listed: 'Logging Last Resource', 'Emulate Two-Phase Commit', and 'One-Phase Commit'. 'One-Phase Commit' is selected. Navigation buttons at the bottom include 'Back', 'Next', 'Finish', and 'Cancel'.

8. For this section, you will need your database connection details.
Under connection properties, enter your DB connection details:



From OCI Console > Bare Metal, VM, Exadata > DB System. Select your DB, click on your Database.

Overview » Bare Metal, VM and Exadata » DB Systems » DB System Details » Databases

DBSystem



AVAILABLE

Scale Storage Up Change Shape Clone Add SSH Keys More Actions ▾

DB System Information Tags

General Information

Status: Available
Availability Domain: Zwzz:AP-HYDERABAD-1-AD-1
OCID: ...6zkbeg [Show](#) [Copy](#).
Shape: VM.Standard2.1
Created: Thu, Sep 3, 2020, 10:38:24 UTC
Time zone: UTC
Compartment: orasenatdecanational01 (root)/WLS-workshop
Oracle Database Software Edition: Standard Edition
Storage Management Software: Logical Volume Manager
Available Data Storage: 256 GB
Total Storage Size: 712 GB
License Type: License Included
Node Maintenance Reboot: Nothing Scheduled

Resources

Databases

Name	State	Database Unique Name	Workload Type
DB2	Available	DB2_hyd1v9	Transaction Pr

Click DB Connection.

Overview » Bare Metal, VM and Exadata » DB Systems » DB System Details » Database Details



AVAILABLE

DB Connection Restore Configure Automatic Backups Create Database from Backup More Actions ▾

Database Information Tags

General Information

OCID: ...3wanjq [Show](#) [Copy](#).
Created: Thu, Sep 3, 2020, 10:38:24 UTC
Database Unique Name: DB2_hyd1v9
Database Workload: OLTP
Database Version: 19.8.0.0.0
Character Set: AL32UTF8
National Character Set: AL16UTF16
Lifecycle State: Available

Resources

Backups

Create Backup

Name	State	Type
		No backups found



The screenshot shows the 'Database Details' dialog with the 'Connection Strings' tab selected. The table lists two connection formats:

Format	Name	Connection String
Easy Connect	cdb_root	...com:1521/DB2_jad1mc.wlsdbsubnet.wls2.oraclevcn.com
Long	cdb_ip_root	..._NAME=DB2_jad1mc.wlsdbsubnet.wls2.oraclevcn.com))

At the bottom right of the table, it says 'Showing 2 Items < 1 of 1 >'.

Close

Copy Easy Connect Connection String.

You can construct your JDBC string and get the correct parameters.

url=jdbc:oracle:thin:@//\${DB_HOST}:1521/\${DB_PDB}.\${DB_DOMAIN}

For Example:

In this case, the connection string copied from DB console is this

wlsdb.dbsubnet.wls.oraclevcn.com:1521/**DB2_hyd1v9**.dbsubnet.wls.oraclevcn.com

(the bold characters is the PDB name here, so you can identify it in your string)

wlsdb.dbsubnet.wls.oraclevcn.com:1521/**DB2PDB**.dbsubnet.wls.oraclevcn.com

<DB_HOST>:1521/<PDB_NAME>.<DB_DOMAIN>

Database name: DB2PDB.dbsubnet.wls.oraclevcn.com

Host name: wlsdb.dbsubnet.wls.oraclevcn.com

Port: 1521

Database user name: riders

Password: AppD3v0ps01_\$

Database name: <DB_PDB>.<DB_DOMAIN>

Host name: <DB_HOST>

Port: 1521

Database user name: riders

Password: AppD3v0ps01_\$

Note: you can get the DB instance details from OCI console. This database username and password is being used in the 'createSchema.sql' file to create a new user for setting up service connections, **so use the same username and password as above. Don't forget to change the PDB name to the PDB name you've updated in sql file.**



Click 'Next'.

Create a New JDBC Data Source

Back | Next | Finish | Cancel

Connection Properties

Define Connection Properties.

What is the name of the database you would like to connect to?

Database Name: DB2PDB.wlsdbsubnet.wls2.oraclevcn.com

What is the name or IP address of the database server?

Host Name: wlsdb.wlsdbsubnet.wls2.oraclevcn.com

What is the port on the database server used to connect to the database?

Port: 1521

What database account user name do you want to use to create database connections?

Database User Name: riders

What is the database account password to use to create database connections?

Password:
Confirm Password:

Additional Connection Properties:

oracle.jdbc.DRCPConnectionClass:

Back | Next | Finish | Cancel

9. Test the connection by clicking 'Test Configuration'.

Once you see the connection has succeeded, Click 'Next'.

ORACLE WebLogic Server Administration Console 12c

Change Center

View changes and restarts

No pending changes exist. Click the Release Configuration button to allow others to edit the domain.

Lock & Edit
Release Configuration

Domain Structure

wls_domain
+ Domain Partitions

Home Log Out Preferences Record Help

Home > Summary of JDBC Data Sources > JDBCConnection > Summary of Services > Summary of JDBC Data Sources

Messages

✓ Connection test succeeded.

Create a New JDBC Data Source

Test Configuration | Back | Next | Finish | Cancel

Test Database Connection

Test the database availability and the connection properties you provided.

10. Select Targets, adminserver and all servers in the cluster.

Click 'Finish'.



Create a New JDBC Data Source

Select Targets

You can select one or more targets to deploy your new JDBC data source. If you don't select a target, the data source will be created by default.

Servers
<input checked="" type="checkbox"/> wls_adminserver
<input checked="" type="checkbox"/> wls_server_1
<input checked="" type="checkbox"/> wls_server_2

11. Once you have your JDBC service connection in place, click ‘Activate Changes’.

Summary of JDBC Data Sources

A JDBC data source is an object bound to the JNDI tree that provides database connectivity through a pool of JDBC connections. Applications can look up a data source using its JNDI name.

Name	Type	JNDI Name
JDBCConnection	Generic	jdbc.JDBCConnectionDS
LocalSvcTblDataSource	Generic	jdbc/LocalSvcTblDataSource
mds-owsm	Generic	jdbc/mds/owsm
opss-audit-DBDS	Generic	jdbc/AuditAppendDataSource
opss-audit-viewDS	Generic	jdbc/AuditViewDataSource
opss-data-source	Generic	jdbc/OpssDataSource
WLSSchemaDataSource	Generic	jdbc/WLSSchemaDataSource

12. You'll see a notification like this ‘All changes have been activated’.



ORACLE WebLogic Server Administration Console 12c

Change Center

View changes and restarts

Click the **Lock & Edit** button to modify, add or delete items in this domain.

Lock & Edit

Release Configuration

Domain Structure

- spw_domain
- + Domain Partitions
- + Environment
- Deployments

Home >Summary of JDBC Data Sources >JDBCConnection >**Summary of JDBC Data Sources**

Messages

All changes have been activated. However 2 items must be restarted for the changes to take effect.

Summary of JDBC Data Sources

Configuration Monitoring

A JDBC data source is an object bound to the JNDI tree that provides database connectivity through a pool of JDBC connections.

This page summarizes the JDBC data source objects that have been created in this domain.

10.3 Deploy and test the application

- Under Domain Structure, go to 'Deployments'. Click 'Lock & Edit' again, for starting the deployment process.

Summary of Deployments - spw_ × +

◀ ▶ ⌂ ⚠ Not secure | 129.213.37.24:7002/console/console.portal

ORACLE WebLogic Server Administration Console 12c

Change Center

View changes and restarts

Click the **Lock & Edit** button to modify, add or delete items in this domain.

Lock & Edit

Release Configuration

Domain Structure

- spw_domain
- + Domain Partitions
- + Environment
- Deployments**
- Services
 - + Messaging
 - Data Sources
 - Persistent Stores
 - Foreign JNDI Providers
 - Work Contexts
 - XML Registries
 - XML Entity Caches
 - jCOM
 - Mail Sessions

Home >Summary of JDBC Data Sources >JDBC

Messages

All changes have been activated. Howe

Summary of Deployments

Configuration Control Monitoring

This page displays the list of Java EE appli

You can update (redeploy) or delete instal

To install a new application or module for

Customize this table

Deployments

Install Update Delete

<input type="checkbox"/>	Name
<input type="checkbox"/>	jCOM

- Click 'Install'.



Summary of Deployments - spw_

ORACLE® WebLogic Server Administration Console 12c

Change Center

View changes and restarts

No pending changes exist. Click the Release Configuration button to allow others to edit the domain.

Domain Structure

- spw_domain
 - Domain Partitions
 - Environment
 - Deployments** (highlighted)
 - Services
 - Messaging
 - Data Sources
 - Persistent Stores
 - Foreign JNDI Providers
 - Work Contexts
 - XML Registries
 - XML Entity Caches
 - JCOM
 - Mail Sessions

How do I...

Summary of Deployments

Configuration (highlighted) | Control | Monitoring

This page displays the list of Java EE applications and standalone application modules installed in this domain. You can update (redeploy) or delete installed applications and modules from the domain. To install a new application or module for deployment to targets in this domain, click the Install button.

Customize this table

Deployments

Install (highlighted)	Update	Delete
<input type="checkbox"/>	Name	▲
<input type="checkbox"/>	+	AlphaProductsRestService
<input type="checkbox"/>	+	AlphaProductsRestServiceTest
<input type="checkbox"/>	!	coherence-transaction-rar

3. Select ‘SimpleDB.ear’ to install. Click ‘Next’.

Install Application Assistant

Back | **Next** | Finish | Cancel

Locate deployment to install and prepare for deployment

Select the file path that represents the application root directory, archive file, exploded archive directory, or application module descriptor that you want to install. You can also enter the path of the application directory or file in the Path field.

Note: Only valid file paths are displayed below. If you cannot find your deployment files, Upload your file(s) and/or confirm that your application contains the required deployment descriptors.

Path: /u01/data/domains/spw_domain/SimpleDB.ear

Recently Used Paths: /u01/data/domains/spw_domain

Current Location: 129.213.37.24 / u01 / data / domains / spw_domain

- bin
- common
- config
- intf-info
- orchestration
- original
- plan** (open directory)
 - servers
 - store
 - sysman
- AlphaProductsRestService.war
- AlphaProductsRestServiceTest.war
- SimpleDB.ear**
- SimpleDBtest.ear
- product-svc.jar

Back | **Next** | Finish | Cancel



4. Select '**Install the deployment as an application**'.

The screenshot shows the Oracle Administration Console 12c interface. The title bar reads "Administration Console 12c". The navigation bar includes "Home", "Log Out", "Preferences", "Record", and "Help". A search bar is also present. The breadcrumb path is "Home > Summary of JDBC Data Sources > JDBCConnection > Summary of JDBC Data Sources > Summary of Deployments". The main content area is titled "Install Application Assistant". It has buttons for "Back", "Next", "Finish", and "Cancel". Below these are sections for "Choose installation type and scope" and "Select if the deployment should be installed as an application or library. Also decide the scope of this deployment." A note states: "The application and its components will be targeted to the same locations. This is the most common usage." Two radio button options are shown: "Install this deployment as an application" (selected) and "Install this deployment as a library". A note below says: "Application libraries are deployments that are available for other deployments to share. Libraries should be available on all of the targets running their referencing applications." Another note says: "Select a scope in which you want to install the deployment." A dropdown menu labeled "Scope:" is set to "Global". At the bottom are the "Back", "Next", "Finish", and "Cancel" buttons.

5. Select the Deployment Targets. Click '**Next**'.

The screenshot shows the Oracle Administration Console 12c interface. The title bar and breadcrumb path are identical to the previous screenshot. The main content area is titled "Install Application Assistant". It has buttons for "Back", "Next", "Finish", and "Cancel". Below these is a section titled "Select deployment targets" with the instruction: "Select the servers and/or clusters to which you want to deploy this application. (You can reconfigure deployment targets later)." A note below says: "Available targets for SimpleDB :". A list box titled "Servers" contains three checked items: "wls_adminserver", "wls_server_1", and "wls_server_2". At the bottom are the "Back", "Next", "Finish", and "Cancel" buttons.



6. Keep the default options, and click 'Next'.

Back | Next | Finish | Cancel

Optional Settings
You can modify these settings or accept the defaults.
* Indicates required fields

General
What do you want to name this deployment?
*** Name:** SimpleDB

Security
What security model do you want to use with this application?
 DD Only: Use only roles and policies that are defined in the deployment descriptors.
 Custom Roles: Use roles that are defined in the Administration Console; use policies that are defined in the deployment descriptor.
 Custom Roles and Policies: Use only roles and policies that are defined in the Administration Console.
 Advanced: Use a custom model that you have configured on the realm's configuration page.

Source Accessibility
How should the source files be made accessible?
 Use the defaults defined by the deployment's targets
Recommended selection.
 Copy this application onto every target for me
During deployment, the files will be copied automatically to the Managed Servers to which the application is targeted.
 I will make the deployment accessible from the following location

Location: /u01/data/domains/spw_domain/SimpleDB.ear

Provide the location from where all targets will access this application's files. This is often a shared directory. You must ensure the application files exist in this location and that each target can reach the location.

Plan Source Accessibility
How should the plan source files be made accessible?



7. Click '**Finish**' to deploy.

The screenshot shows the 'Install Application Assistant' interface. At the top, there are 'Back', 'Next', 'Finish', and 'Cancel' buttons. Below them, a section titled 'Review your choices and click Finish' contains the instruction 'Click Finish to complete the deployment. This may take a few moments to complete.' A radio button labeled 'Yes, take me to the deployment's configuration screen.' is selected. Another radio button labeled 'No, I will review the configuration later.' is available. A 'Summary' tab is active, showing deployment details: Deployment path is '/u01/data/domains/spw_domain/SimpleDB.ear'; Name is 'SimpleDB'; Staging Mode is 'Use the defaults defined by the chosen targets'; Plan Staging Mode is 'Use the same accessibility as the application'; Security Model is 'DDOnly: Use only roles and policies that are defined in the deployment descriptors.'; and Scope is 'Global'. A 'Target Summary' table lists a single component 'SimpleDB.ear' with target servers 'spw_adminserver, spw_cluster'. At the bottom are 'Back', 'Next', 'Finish', and 'Cancel' buttons.

8. Click '**Activate Changes**'.

The screenshot shows the 'ORACLE WebLogic Server Administration Console 12c' interface. The title bar includes a globe icon, the URL 'Settings for SimpleDB - spw_domain', and a note 'Not secure'. The main content area has a 'Change Center' sidebar with a message 'Pending changes exist. They must be activated to take effect.' and buttons for 'Activate Changes' and 'Undo All Changes'. The main panel is titled 'Settings for SimpleDB' and shows tabs for Overview, Deployment Plan, Configuration, Security, Targets, Control, Testing, Monitoring, and Notes. The 'Overview' tab is selected. It displays the configuration for 'SimpleDB': Name is 'SimpleDB', Scope is 'Global', and Path is '/u01/data/domains/spw_domain/ SimpleDB. ear'. A note at the bottom says 'Use this page to view the general configuration of an enterprise application, such as its name, the physical path to the application file applications and EJBs) that are contained in the enterprise application. Click on the name of the module to view and update its config'. On the left, a 'Domain Structure' tree shows nodes like 'spw_domain', 'Domain Partitions', 'Environment', 'Deployments', 'Services', 'Messaging', 'Data Sources', 'Persistent Stores', and 'Foreign JNDI Providers'.

9. Once the changes are successfully applied, go to '**Deployments**' from left panel.



Summary of Deployments - spw_

Not secure | 129.213.37.24:7002/console/console.portal

ORACLE® WebLogic Server Administration Console 12c

Change Center

View changes and restarts

Click the **Lock & Edit** button to modify, add or delete items in this domain.

Lock & Edit

Release Configuration

Domain Structure

- spw_domain
 - + Domain Partitions
 - + Environment
 - Deployments**
 - Services
 - + Messaging
 - Data Sources
 - Persistent Stores
 - Foreign JNDI Providers
 - Work Contexts
 - XML Registries
 - XML Entity Caches
 - jCOM
 - Mail Sessions

Messages

All changes have been activated. However, some changes have not yet been applied.

Summary of Deployments

Configuration Control Monitoring

This page displays the list of Java EE applications and standalone application modules installed to this domain. You can update (redeploy) or delete installed applications and modules. To install a new application or module for this domain, click the **Install** button.

Customize this table

Deployments

Install Update Delete

<input type="checkbox"/>	Name
<input type="checkbox"/>	coherence-transaction-rar
<input type="checkbox"/>	DMS Application (12.2.1.1.0)
<input type="checkbox"/>	em
<input type="checkbox"/>	opss-rest
<input type="checkbox"/>	SimpleDB
<input type="checkbox"/>	state-management-provider-memory-rar
<input type="checkbox"/>	wsm-pm

10. Click on ‘Control’ section.

Summary of Deployments

Configuration Control Monitoring

This page displays the list of Java EE applications and standalone application modules installed to this domain. You can start and stop applications and modules from the domain by selecting the checkbox next to the application name and then clicking the Start or Stop button.

Customize this table

Deployments

Start Stop

<input type="checkbox"/>	Name
<input type="checkbox"/>	coherence-transaction-rar
<input type="checkbox"/>	DMS Application (12.2.1.1.0)
<input type="checkbox"/>	em
<input type="checkbox"/>	opss-rest
<input checked="" type="checkbox"/>	SimpleDB
<input type="checkbox"/>	state-management-provider-memory-rar
<input type="checkbox"/>	wsm-pm

Start Stop



11. Select the 'SimpleDB' application and start 'Servicing all requests'.

Summary of Deployments

Configuration Control Monitoring

This page displays the list of Java EE applications and standalone application modules installed to this domain. You can start and stop applications and modules from the domain by selecting the checkbox next to the application name and then using the Start or Stop buttons.

Customize this table

Deployments

<input type="checkbox"/>	<input type="button" value="Start"/>	<input type="button" value="Stop"/>
Servicing all requests		
Servicing only administration requests		
<input type="checkbox"/>	conference-transaction-rar	
<input type="checkbox"/>	DMS Application (12.2.1.1.0)	
<input type="checkbox"/>	em	
<input type="checkbox"/>	opss-rest	
<input checked="" type="checkbox"/>	SimpleDB	
<input type="checkbox"/>	state-management-provider-memory-rar	
<input type="checkbox"/>	wsm-pm	
	<input type="button" value="Start"/>	<input type="button" value="Stop"/>

12. Select 'Yes'.

Home Log Out Preferences Record Help

Home >Summary of JDBC Data Sources >JDBCConnection >Summary of JDBC Data Sources >Summary of Deployments >SimpleDB >**Summary of Deployments**

Start Application Assistant

Start Deployments

You have selected the following deployments to be started. Click 'Yes' to continue, or 'No' to cancel.

- SimpleDB

13. And you're done!



Messages

Start requests have been sent to the selected deployments.

Summary of Deployments

[Configuration](#) **Control** [Monitoring](#)

This page displays the list of Java EE applications and standalone application modules installed to this domain. You can start and stop applications and modules from the domain by selecting the checkbox next to the application name.

[Customize this table](#)

Deployments

14. Open your browser and test the deployed application, <http://<WLS-IP>:9071/SimpleDB/>. You'll get the response from DB tables as a result.



The screenshot shows a browser window with the URL <http://129.213.37.24:9071/SimpleDB/>. The page title is "Tour de France riders stats". Below the title is a table with the following data:

Year	Rank	Name	Team	Points	ID	Result	Distance	Stages
2017	1	CHRIS FROOME	TEAM SKY	0	1	86h 20m 55s	3540	21
2017	1	CHRIS FROOME	TEAM SKY	0	1	86h 20m 55s	3540	21
2016	1	CHRIS FROOME	TEAM SKY	0	1	89h 04m 48s	3525	21
2016	1	CHRIS FROOME	TEAM SKY	0	1	89h 04m 48s	3525	21
2015	1	CHRIS FROOME	TEAM SKY	0	31	84h 46m 14s	3354	21
2015	1	CHRIS FROOME	TEAM SKY	0	31	84h 46m 14s	3354	21
2014	1	VINCENZO NIBALI	ASTANA PRO TEAM	0	41	89h 59m 06s	3659	21
2014	1	VINCENZO NIBALI	ASTANA PRO TEAM	0	41	89h 59m 06s	3659	21
2013	1	CHRIS FROOME	SKY PROCYCLING	0	1	83h 56m 40s	3404	21
2013	1	CHRIS FROOME	SKY PROCYCLING	0	1	83h 56m 40s	3404	21
2012	1	BRADLEY WIGGINS	SKY PROCYCLING	0	101	87h 34m 47s	3497	20
2012	1	BRADLEY WIGGINS	SKY PROCYCLING	0	101	87h 34m 47s	3497	20
2011	1	CADEL EVANS	BMC RACING TEAM	0	141	86h 12m 22s	3630	21
2011	1	CADEL EVANS	BMC RACING TEAM	0	141	86h 12m 22s	3630	21
2010	1	ANDY SCHLECK	TEAM SAXO BANK	0	11	91h 59m 27s	3642	20
2010	1	ANDY SCHLECK	TEAM SAXO BANK	0	11	91h 59m 27s	3642	20
2009	1	ALBERTO CONTADOR	ASTANA	0	21	85h 48m 35s	3460	21
2009	1	ALBERTO CONTADOR	ASTANA	0	21	85h 48m 35s	3460	21
2008	1	CARLOS SASTRE	TEAM CSC SAXO BANK	0	11	87h 52m 52s	3559	21
2008	1	CARLOS SASTRE	TEAM CSC SAXO BANK	0	11	87h 52m 52s	3559	21
2007	1	ALBERTO CONTADOR	DISCOVERY CHANNEL TEAM	0	112	91h 00m 26s	3570	20
2007	1	ALBERTO CONTADOR	DISCOVERY CHANNEL TEAM	0	112	91h 00m 26s	3570	20
2006	1	OSCAR PEREIRO SIO	CAISSE D'EPARGNE-ILLES BALEARS	0	97	89h 40m 27s	3657	20

11 OTHER DOCUMENTATION

[Oracle WebLogic Server Documentation](#)

[Oracle WebLogic Server on Oracle Infrastructure Reference Architecture](#)

[Oracle WebLogic Server on OCI Quick Start Guide](#)



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