

Perform Database Operations for an Oracle SOA Suite on Marketplace Instance

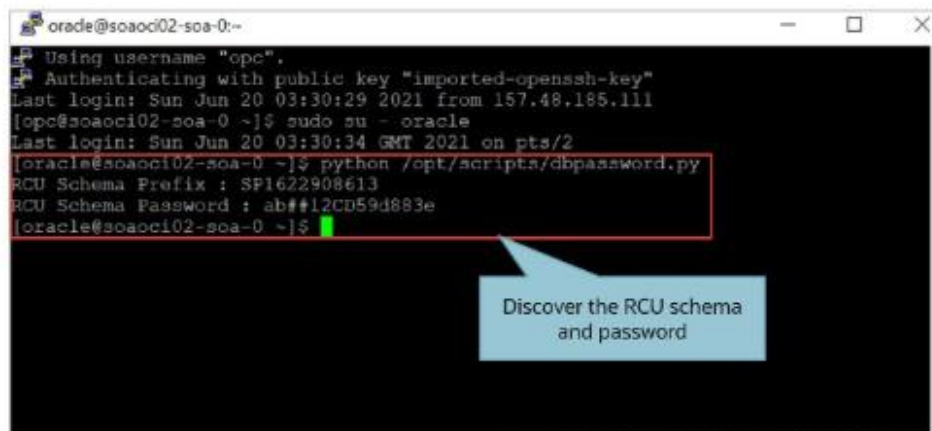
Objectives

After completing this lesson, you should be able to know how to:

- Discover the default database schema prefix and password
- Create a data source for an Oracle Autonomous Transaction Processing Database



Discover the Default Database Schema Prefix and Password



A terminal window titled 'orade@soaoci02-soa-0:~' showing the following commands and output:

```
orade@soaoci02-soa-0:~$ ssh -i private_key opc@157.48.185.111
Using username "opc".
Authenticating with public key "imported-openssh-key"
Last login: Sun Jun 20 03:30:29 2021 from 157.48.185.111
[opc@soaoci02-soa-0 ~]$ sudo su - oracle
Last login: Sun Jun 20 03:30:34 GMT 2021 on pts/2
[oracle@soaoci02-soa-0 ~]$ python /opt/scripts/dbpassword.py
RCU Schema Prefix : SP1622908613
RCU Schema Password : ab##12CD59d883e
[oracle@soaoci02-soa-0 ~]$
```

A red box highlights the output of the script. A blue callout bubble points to this box with the text: "Discover the RCU schema and password".

After provisioning, database schemas are created with a default prefix and password.

To find the default database schema and password:

1. Use the ssh command to connect to Administration VM :`ssh -i private_key opc@VM_IP_address`
2. Change to the oracle user: `sudo su - oracle`
3. Enter the command: `python /opt/scripts/dbpassword.py`

Note:

The dbpassword.py script is available in /opt/scripts/ for recently created instances. If this script is not found, contact your Oracle Support representative.

4. In the command output, note the default database schema prefix and password:

RCU Schema Prefix : *prefix*

RCU Schema Password : *password*



Create a Data Source for an Oracle Autonomous Transaction Processing Database

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Create a Data Source for an Oracle ATP

Oracle WebLogic Server for OCI provides two utility scripts to help create Oracle ATP data sources:

- A download script that downloads the ATP wallet files to a node
- Use Create script or use the WebLogic Administration console to configure JDBC data source using the downloaded ATP wallet files and data source properties

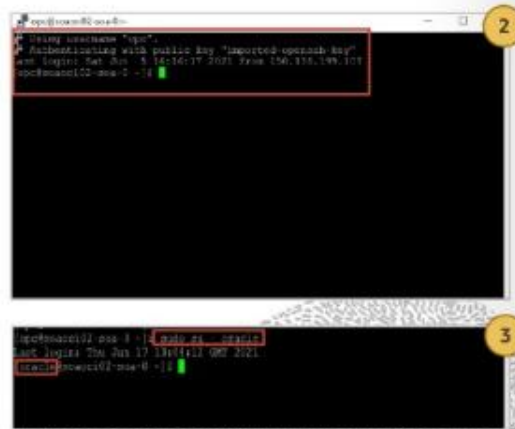
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To run the scripts, you need to access the nodes in your WebLogic domain as the `opc` user. The scripts are located in `/opt/scripts/utls` and can only be run as the oracle user.

The ATP database must allow the WebLogic Server compute instances to access the database listen port (1521 by default).

Download the ATP Wallet



The download script unpacks and copies the ATP wallet contents to a node.

Note:

The download script must be run before the create script that configures a data source.

If the data source target is the domain cluster, you must run the download script on every node in the cluster. If the target is individual servers, then run the script on those servers.

You need the public IP address of each node on which you plan to run the download script. Find the IP address on the Compute Instance Details page in the Oracle Cloud Infrastructure console. Look up the bastion's public IP address and the private IP address of a node if the WebLogic domain is in a private subnet.

Steps:

1. Open an SSH connection to a node as the opc user.
2. Change to the oracle user.

3. Run the script **download_atp_wallet.sh** by providing the following parameters:
 - OCID of the ATP database - You can find the OCID from the ATP Database Details page in the Oracle Cloud Infrastructure console.
 - Password for the ATP wallet - The password must be at least 8 characters long and includes at least 1 letter and either 1 numeric character or 1 special character.
 - Path to save the extracted ATP wallet files - The path to a directory on the domain where the script saves the extracted ATP wallet files, for example:
`/u01/data/domains/thestack_domain/config/atp`
4. Run the command `:/opt/scripts/utls/download_atp_wallet.sh atp_database_ocid atp_wallet_password path_to_extract_wallet_files`
5. The download script creates a subdirectory in the path you provide using the ATP database OCID value.
6. Seven files are extracted to the subdirectory.
7. Repeat steps 1 through 3 on each node where you have to run the download script. Depending on the data source target, run the download script on every node in the cluster or on individual servers.

Steps:

- ```
/opt/scripts/utils/create_atp_datasource.sh
```

Provide a value for each prompt or accept default value

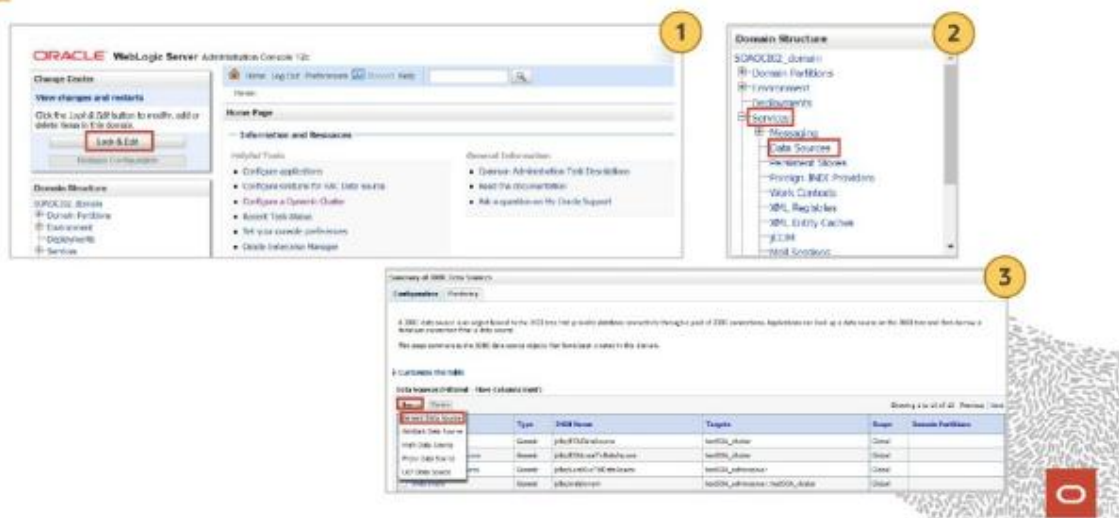
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To configure a data source for an ATP database:

1. Open an SSH connection to any node as the `opc` user and then change to the `oracle` user.
2. Run the script `create_atp_datasource.sh` and follow user prompts:  
`/opt/scripts/utls/create_atp_datasource.sh`
3. At each prompt, enter a value or press Enter to accept the default value.



# Configure a Data Source for an ATP Database Using WebLogic Administration Console



## Steps:

1. Log in to WebLogic console. From the home page, click Lock & Edit.
2. From domain structure, click Data Sources under Services.
3. Click option New and select Generic Data Source.

# Configure a Data Source Using WebLogic Administration Console

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**JDBC Data Source Properties**

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

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

**Name:** JTFSCADatabasePool

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

**Package:** Global

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

**JNDI Name:** JTFSCADatabasePool

What database type would you like to select?

**Database Type:** Oracle

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**Create a New JDBC Data Source**

**JDBC Data Source Properties**

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

**Database Driver:** Oracle

What database driver would you like to use to create database connections? Note: \*\* indicates that the driver is explicitly supported by Oracle WebLogic Server.

**Database Driver:** Oracle's Driver (Thin) for Service connections, Versions: Any

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**Connection Properties**

Define the connection properties.

What is the name of the database you want to connect to?

**Database Name:** JTFSCADatabasePool

What is the name of the schema of the database driver?

**Schema Name:** JTFSCADatabasePool

What is the user name for the database you are going to connect to the database?

**User:** JTFSCADatabasePool

What is the password for the database you are going to connect to the database?

**Password:** JTFSCADatabasePool

What is the database connection pool name you want to create?

**Connection Pool Name:** JTFSCADatabasePool

What is the database connection pool size you want to create?

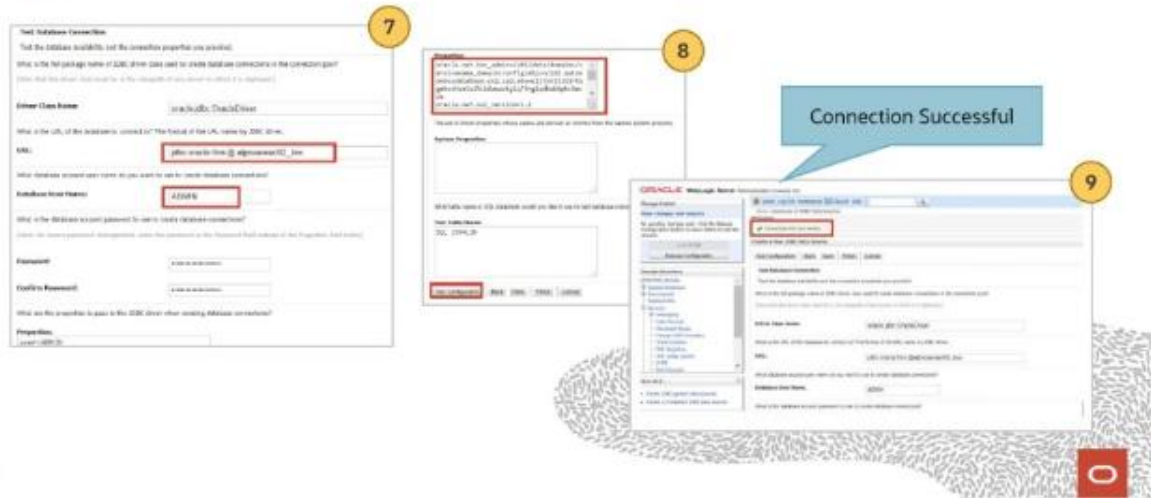
**Connection Pool Size:** JTFSCADatabasePool

What is the database connection pool timeout you want to create?

**Connection Pool Timeout:** JTFSCADatabasePool

4. Enter the required information to create a New JDBC Data Source and click Next.
5. Select the Database Driver as Oracle's Driver (Thin) for Service connections; Versions: Any and click Next.
6. Provide the connection properties and click Next.

# Configure a Data Source Using WebLogic Administration Console



7. Change the JDBC URL.
8. Set the properties.
9. Test the configuration, and it displays the test connection successful message.

# Configure a Data Source Using WebLogic Administration Console

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WebLogic Administration Console

Create a New JDBC Data Source

Target: Target1

Select Target:

Target: Target1

Driver:

Driver: oracle.jdbc.driver.OracleDriver

Class Name:

Class Name: oracle.jdbc.driver.OracleDriver

URL:

URL: jdbc:oracle:thin:@//localhost:1521/orcl

Test:

Test:

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JDBC Data Sources (Target1 - Managed Server)

| Name             | Type | URL                                     | Driver                          | Target  | Database Properties |
|------------------|------|-----------------------------------------|---------------------------------|---------|---------------------|
| ATPSOData source | JDBC | jdbc:oracle:thin:@//localhost:1521/orcl | oracle.jdbc.driver.OracleDriver | Target1 |                     |
| ATPSOData source | JDBC | jdbc:oracle:thin:@//localhost:1521/orcl | oracle.jdbc.driver.OracleDriver | Target1 |                     |
| ATPSOData source | JDBC | jdbc:oracle:thin:@//localhost:1521/orcl | oracle.jdbc.driver.OracleDriver | Target1 |                     |
| ATPSOData source | JDBC | jdbc:oracle:thin:@//localhost:1521/orcl | oracle.jdbc.driver.OracleDriver | Target1 |                     |
| ATPSOData source | JDBC | jdbc:oracle:thin:@//localhost:1521/orcl | oracle.jdbc.driver.OracleDriver | Target1 |                     |
| ATPSOData source | JDBC | jdbc:oracle:thin:@//localhost:1521/orcl | oracle.jdbc.driver.OracleDriver | Target1 |                     |
| ATPSOData source | JDBC | jdbc:oracle:thin:@//localhost:1521/orcl | oracle.jdbc.driver.OracleDriver | Target1 |                     |
| ATPSOData source | JDBC | jdbc:oracle:thin:@//localhost:1521/orcl | oracle.jdbc.driver.OracleDriver | Target1 |                     |
| ATPSOData source | JDBC | jdbc:oracle:thin:@//localhost:1521/orcl | oracle.jdbc.driver.OracleDriver | Target1 |                     |
| ATPSOData source | JDBC | jdbc:oracle:thin:@//localhost:1521/orcl | oracle.jdbc.driver.OracleDriver | Target1 |                     |

The final configuration step is to select the target. Select the target as Admin and Managed Server and click Finish. Once you are done, you can see the new data source "ATPSOData source" is created successfully, and is listed in the JDBC data source table.

## Summary

In this lesson, you should have learned how to:

- Discover the default database schema prefix and password
- Create a data source for an Oracle Autonomous Transaction Processing Database



## Practice 6: Perform Database Operations for an Oracle SOA Suite on Marketplace Instance

- Practice 6-1: Create a Data Source for an Oracle ATP Database