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Degree: MSCS
Course: Database Systems II

Database Creation Using CloudFormation and Oracle Database

In this homework, we focus on creating databases using cloud formations and establishing a connection from a local machine using the Oracle database. The user ID created in the cloud formation will be used to set up the connection, and a new user ID will be created from the local system. Additionally, queries will be executed, tables will be created, and various database operations will be performed.

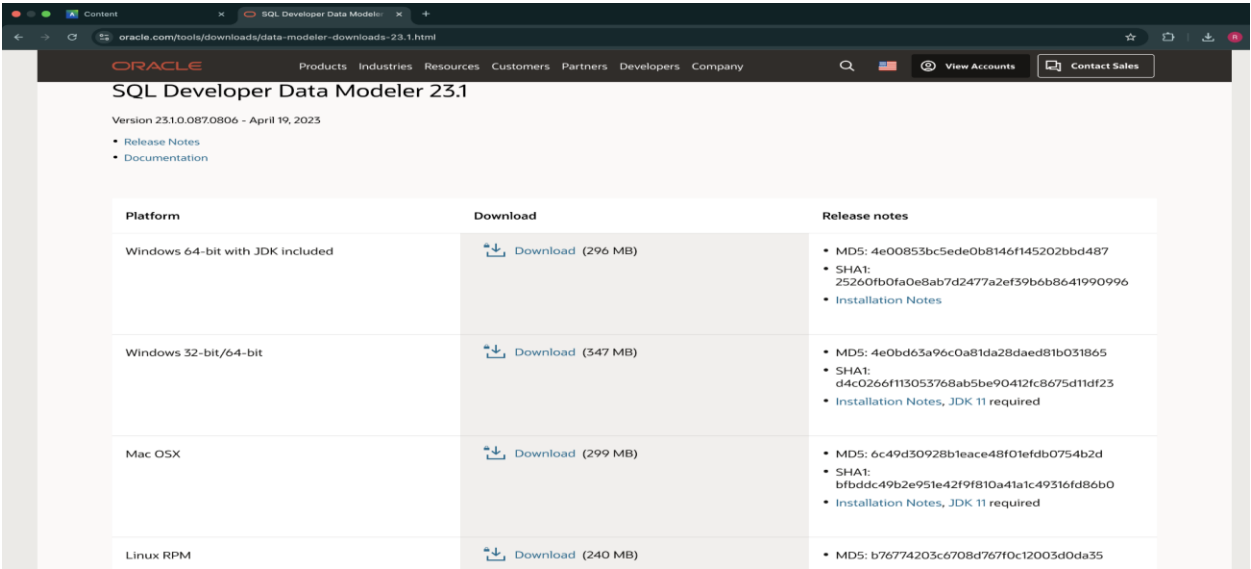
Part 1: Installation of Oracle Developer Data Modeler

The first part of assignment involves installing Oracle Developer Data Modeler, which is available for free from Oracle. For first-time users, creating a user ID using a GWU email address is required, with no need for payment information. It is recommended to install an older version of the software, starting with the 64-bit version and switching to the 32-bit version if issues arise. The suggested versions for installation are SQL Developer Data Modeler 23.1 and Oracle SQL Developer 23.1.1.

- [SQL Developer Data Modeler Downloads 23.1](#)
- [Oracle SQL Developer Downloads 23.1.1](#)

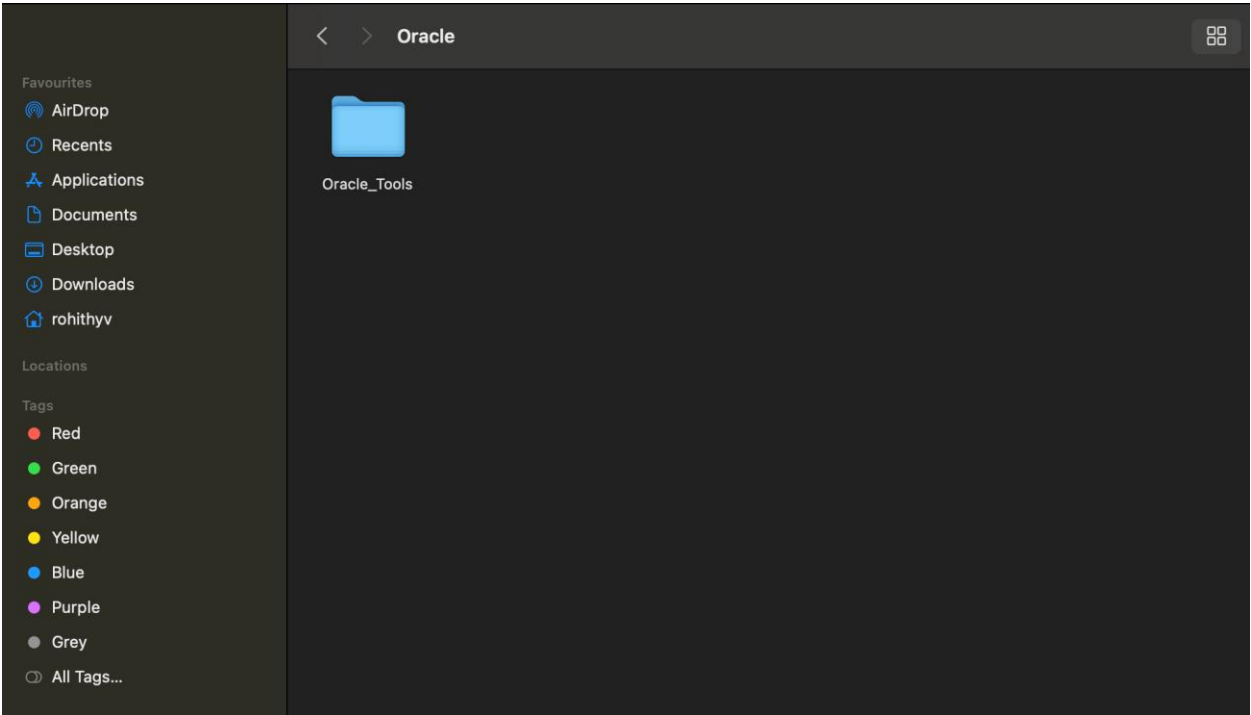
This guide outlines the steps to download, install, and set up Oracle SQL Developer (Oracle Corporation, 2023) and SQL Developer Data Modeler for use in class. It covers the process of creating a user account on Oracle's website, downloading the appropriate software versions, and setting up a directory to store the tools. The installation process involves copying the SQL Developer ZIP file to a dedicated folder, extracting it, and launching SQL Developer. After installation, users can begin creating database connections and managing databases through the SQL Developer interface.

Figure 1
Downloading the SQL Developer 23.1 from the Oracle Website for Mac OS



Note. This figure shows the Oracle website where SQL Developer 23.1 can be downloaded. The recommended version for Mac OS is the **Mac OSX**. Users should ensure they select the correct version to avoid compatibility issues.

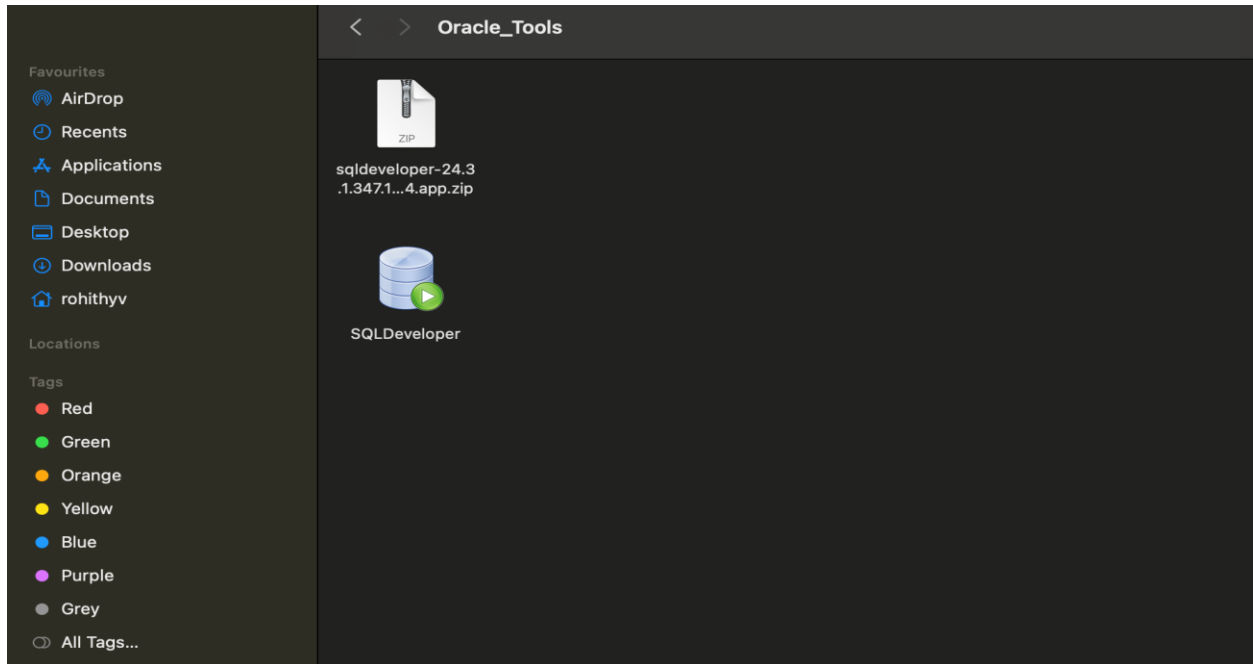
Figure 2
Creating the "Oracle_Tools" Directory



Note. This figure demonstrates the process of creating a directory. This setup is essential for organizing Oracle-related tools efficiently.

Figure 3

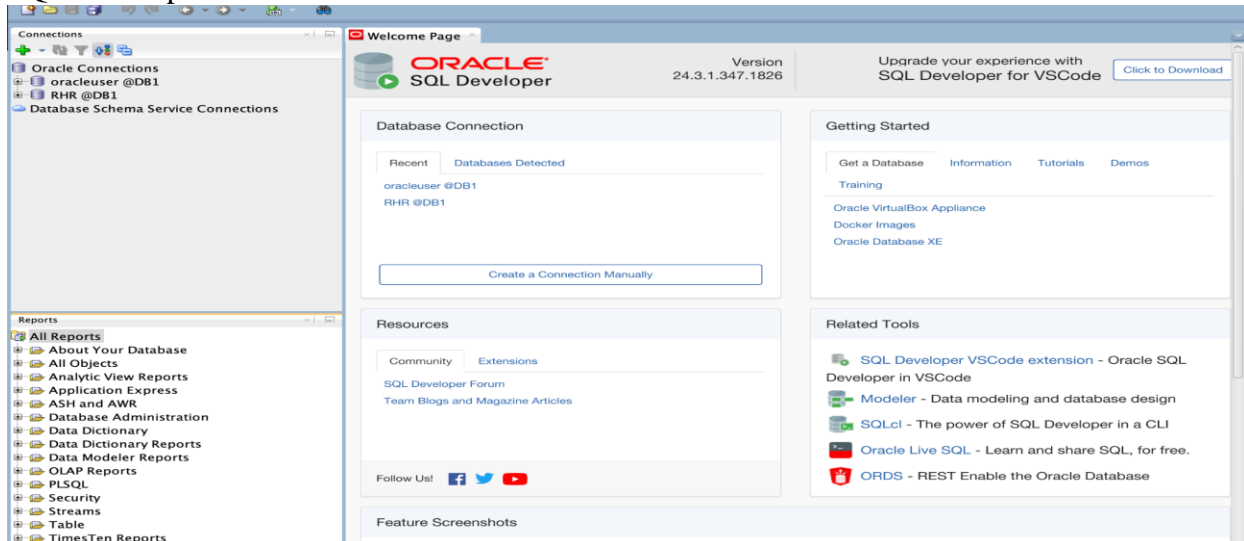
Oracle SQL Developer Setup: Ready to Launch



This figure shows copying **sqldeveloper-24.3.1.347.1826-macos-x64.app.zip** into the *Oracle_Tools* directory, extracting it, and running **sqldeveloper** to launch SQL Developer for database management.

Figure 4

SQL Developer Interface After Successful Installation and Execution



Note: This figure shows the SQL Developer interface after successfully running sqldeveloper. Users can now create connections and manage databases.

Part 2:

From the AWS Console, go to the Service “CloudFormation” and use the CloudFormation YAML template “Build_Single_AZ_Oracle_and_PostgreSQL_DBs.yaml”.

This CloudFormation template, “Build_Single_AZ_Oracle_and_PostgreSQL_DBs.yaml”, includes explanatory comments (lines that start with #), and creates the resources outlined in the comments of the YAML file “**Build_Single_AZ_Oracle_and_PostgreSQL_DBs.yaml**” as well as an Oracle RDS and a PostgreSQL RDS databases.

To run the script in CloudFormation, proceed as follows:

- Select Create Stack > With new resources (standard)
- Upload the template file
- Enter a stack name
- Modify any parameters. The only parameters that don't have a default are the database passwords. Set the Name Prefix to your initials and change the databases password.
- Click Next
- Next on the next page
- Finally Submit.

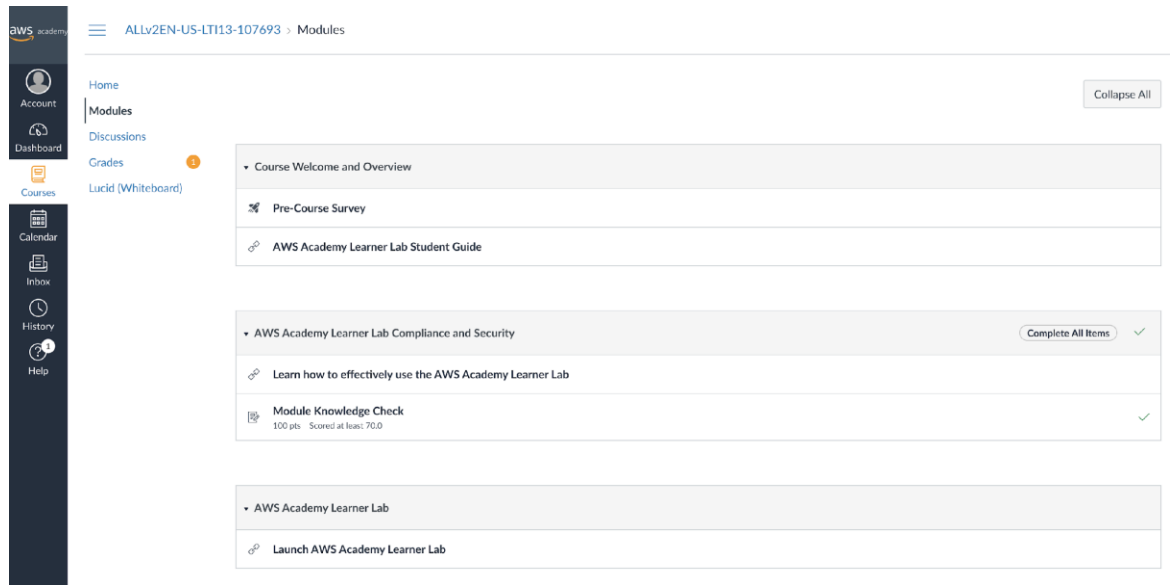
Detailed Description of Part 2:

We are working on an AWS Academy Learner Lab. It could be the one below or other AWS Academy Learner Lab listed on “00.Spring2025_GWU_AWS_Academy_Classes.docx”.

AWS Academy Learner Lab [107693]

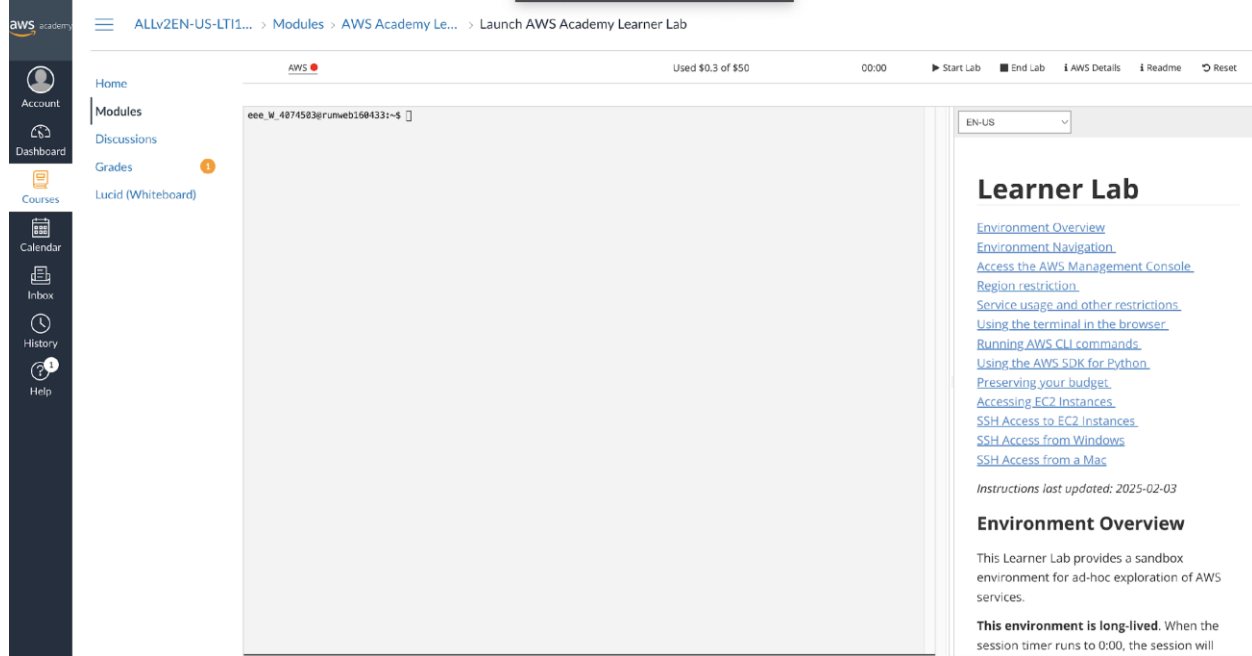
<https://awsacademy.instructure.com/courses/107693>

Figure 1



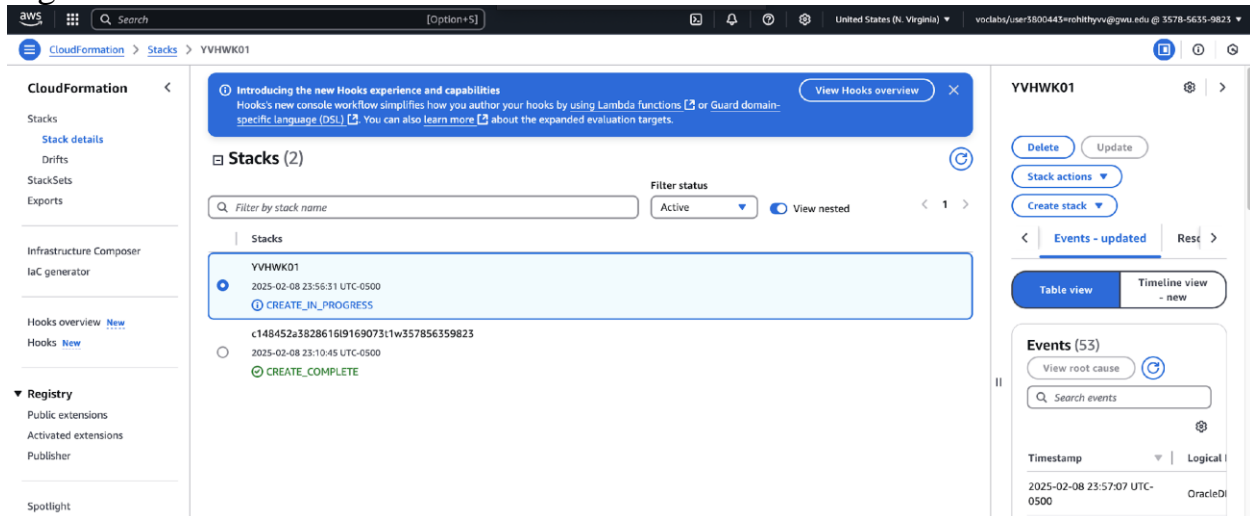
Note: Go to AWS Academy, select AWS Academy’s Learner Labs [107693], & click on the Launch AWS Academy Learner Lab.

Figure 2



Note: On the AWS Academy Learner Lab, click on Start Lab Button. The Lab will be built. It will take few minutes. Once, the Lab Environment is built, the AWS link will get the green circle. At this point, click on AWS to go to the AWS Console.

Figure 3



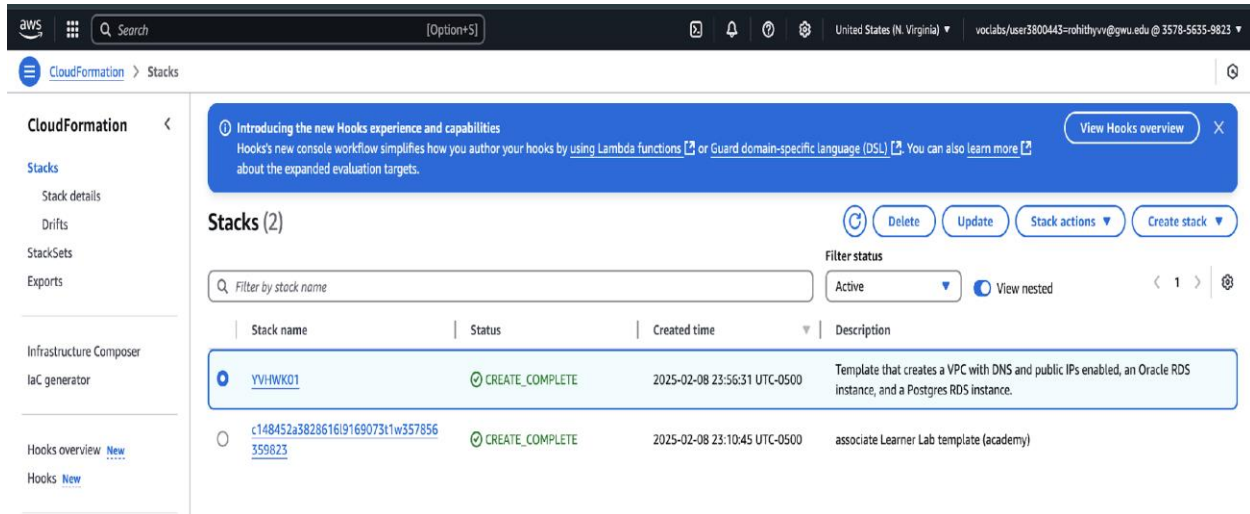
Note: On the AWS Console, search & select for CloudFormation & then press Enter. On the CloudFormation/Stacks window, click on the drop down and select on Create stack on the top right corner and select the option “With New Resources (Standard)”.

Key Points:

The AWS CloudFormation console image shows two stacks named "YVHWK01" and "c148452a3828616196073t1w357856359823," both marked with the status "CREATE_COMPLETE" and created on February 8, 2025. The "YVHWK01" stack is described as a template that creates a VPC with DNS and public IPs enabled, an Oracle RDS instance, and a PostgreSQL RDS instance.

The second stack is an associate Learner Lab template (academy). The page includes options for deleting, updating, performing stack actions, and creating new stacks. A blue banner at the top introduces the new Hooks experience and capabilities in AWS CloudFormation, with a link to view the Hooks overview, providing insight into managing and monitoring infrastructure deployment on AWS.

Figure 4



Note: I selected the created "YVHWK01" stack in the AWS CloudFormation console. The console provides the sequence of resource creation and their statuses, essential for monitoring and troubleshooting the infrastructure deployment process.

Key Points:

1. Stack Name: YVHWK01

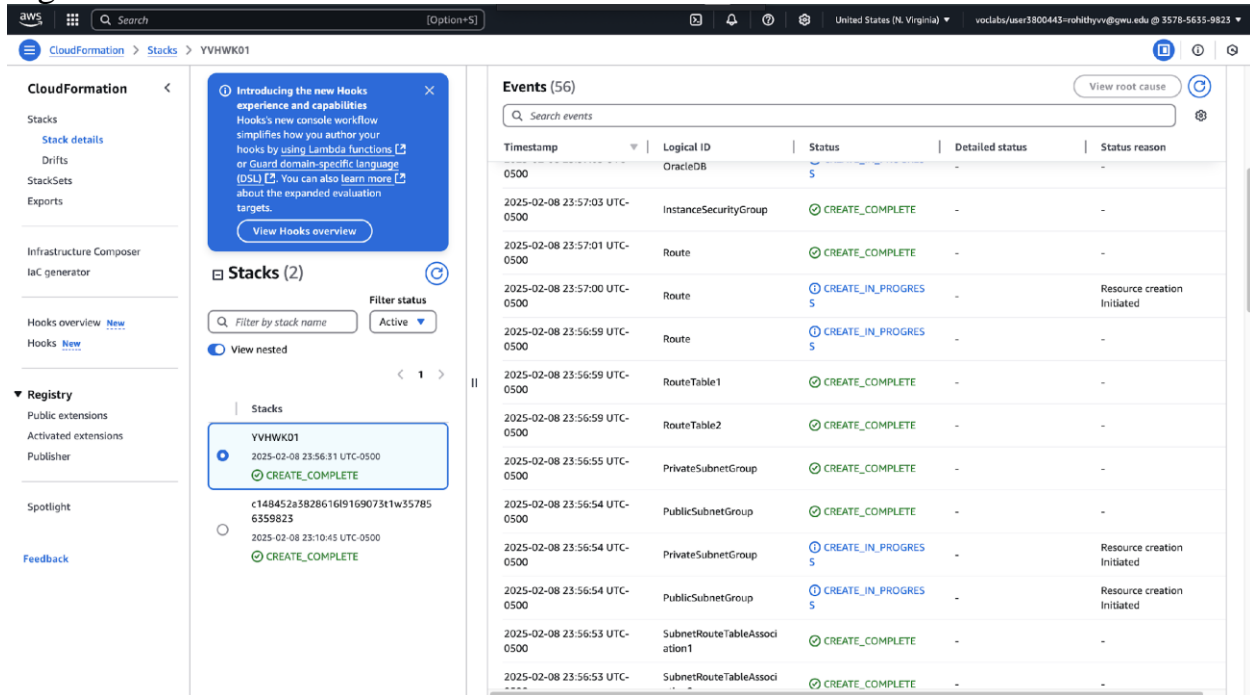
- Status: CREATE_COMPLETE
- Created Time: 2025-02-08 23:56:31 UTC-0500
- Description: Creates a VPC with DNS, public IPs, an Oracle RDS instance, and a Postgres RDS instance.

2. Stack Name: c148452a3828616196073t1w357856359823

- Status: CREATE_COMPLETE
- Created Time: 2025-02-08 23:10:45 UTC-0500
- Description: Associate Learner Lab template (academy).

3. The console includes options to filter stacks by name and status, with actions like Delete, Update, and Create stack.
4. A blue banner introduces the new Hooks experience and capabilities in AWS CloudFormation.

Figure 5



Note: I reviewed the AWS CloudFormation console, selecting the created "YVHWK01" stack. The console provides a detailed sequence of resource creation and statuses, essential for monitoring and troubleshooting the infrastructure deployment process.

Key Points:

1. Stack Name: YVHWK01

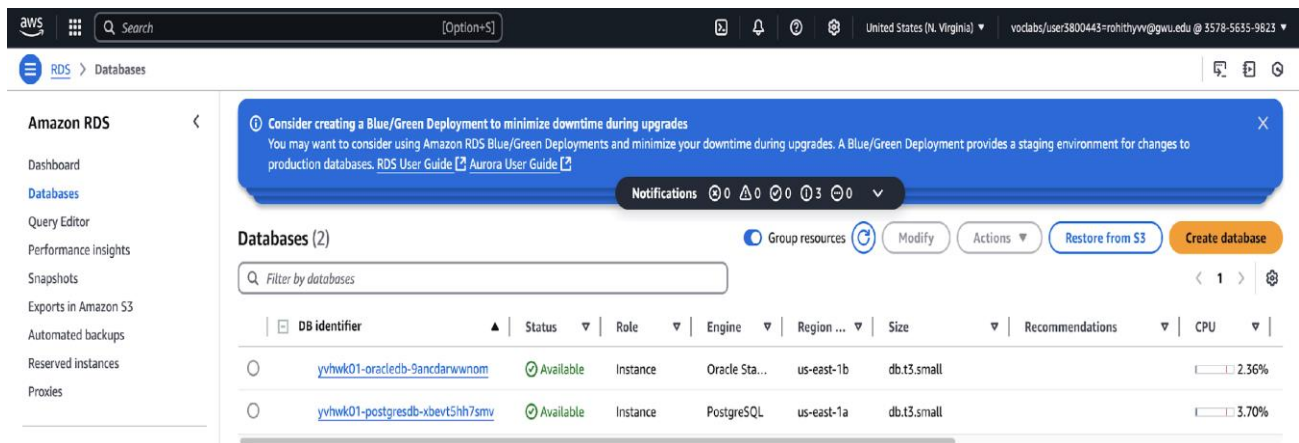
- Status: CREATE_COMPLETE
- Created Time: 2025-02-08 23:56:31 UTC-0500
- Description: Creates a VPC with DNS, public IPs, Oracle RDS, and PostgreSQL RDS instances.

2. Stack Name: c148452a3828616196073t1w357856359823

- Status: CREATE_COMPLETE

- Created Time: 2025-02-08 23:10:45 UTC-0500
 - Description: Associate Learner Lab template (academy).
3. The console includes options to filter stacks by name and status, with actions like Delete, Update, and Create stack.

Figure 6

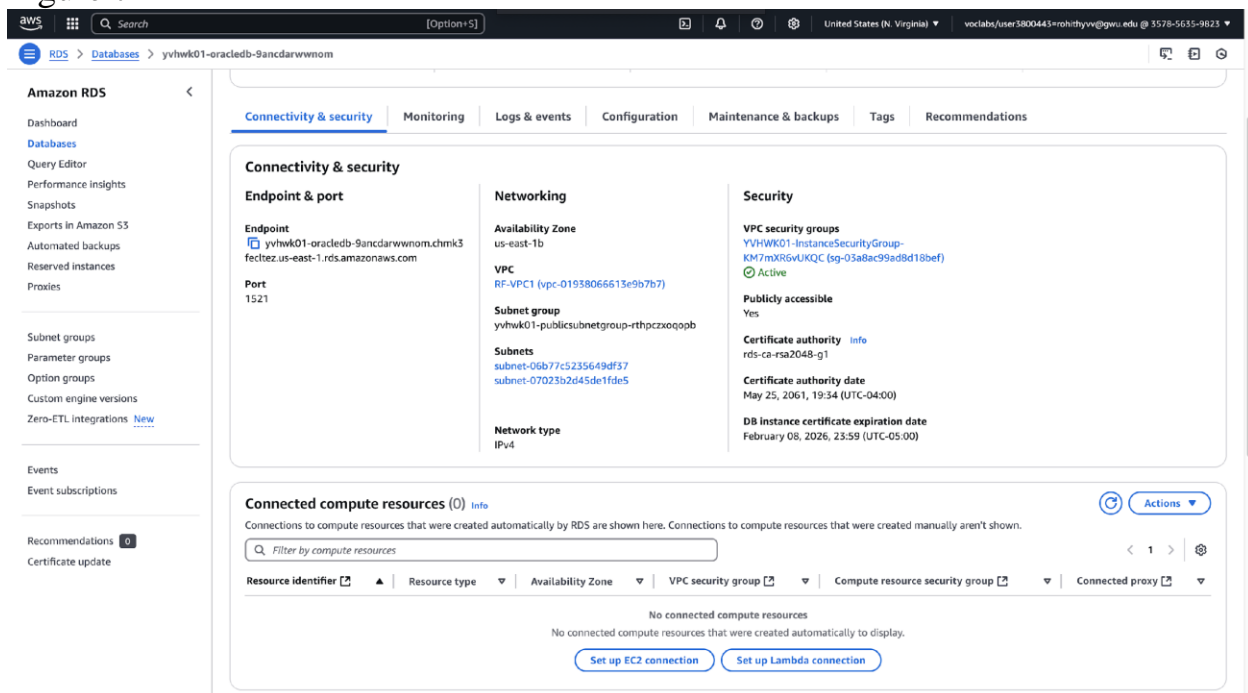


Note: I reviewed the AWS CloudFormation console, where two stacks, "YVHWK01" and "c148452a3828616196073t1w357856359823," have been successfully created with specific configurations. The interface offers various actions like delete, update, and filtering stacks by name and status.

Key Points:

- Stack Name:** YVHWK01
 - Status: CREATE_COMPLETE
 - Created Time: 2025-02-08 23:56:31 UTC-0500
 - Description: Creates a VPC with DNS, public IPs, Oracle RDS, and PostgreSQL RDS instances.
 - Stack Name:** c148452a3828616196073t1w357856359823
 - Status: CREATE_COMPLETE
 - Created Time: 2025-02-08 23:10:45 UTC-0500
 - Description: Associate Learner Lab template (academy).
3. The console includes options for deleting, updating, and filtering stacks by name and status.

Figure 7



Note : Go to the AWS Services and select RDS. On the Amazon RDS window click on the DB instances link & then select the oracle instance. I reviewed the AWS CloudFormation console, where two stacks, "YVHWK01" and "c148452a3828616196073t1w357856359823," have been successfully created. The interface offers various actions like delete, update, and filter stacks by name and status

Key Points:

1. Stack Name: YVHWK01

- Status: CREATE_COMPLETE
- Created Time: 2025-02-08 23:56:31 UTC-0500

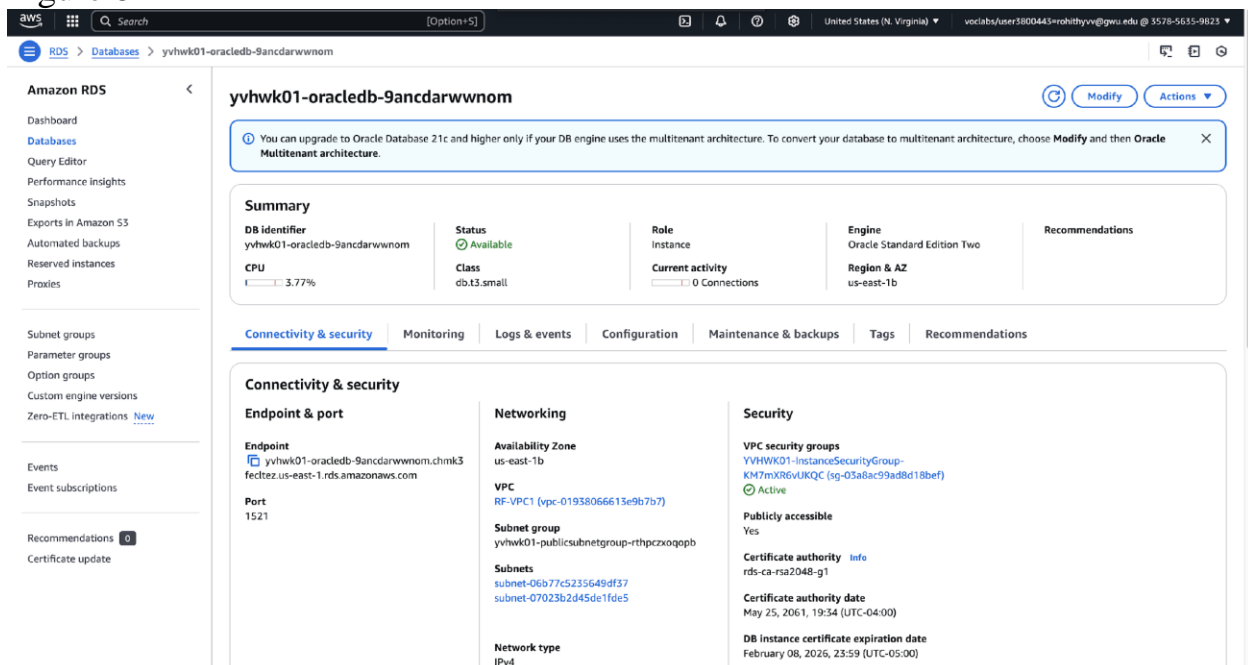
- Description: Creates a VPC with DNS, public IPs, Oracle RDS, and PostgreSQL RDS instances.

2. **Stack Name:** c148452a3828616196073t1w357856359823

- Status: CREATE_COMPLETE
- Created Time: 2025-02-08 23:10:45 UTC-0500
- Description: Associate Learner Lab template (academy).

3. The console includes options for deleting, updating, and filtering stacks by name and status.

Figure 8



Note: When working with AWS CloudFormation stacks that create instances or services accessible over the internet or within your network, it's important to note the endpoints and port numbers for connectivity. Here are some general guidelines:

DB End Point:

yvhwk01-oracledb-9ancdarwwnom.chmk3fec1tez.us-east-1.rds.amazonaws.com

Port: 1521

Then Click on the Configuration tab and copy the DB Name and the Master username into a notepad

DB Name: DB 1

Master Username: oracleuser

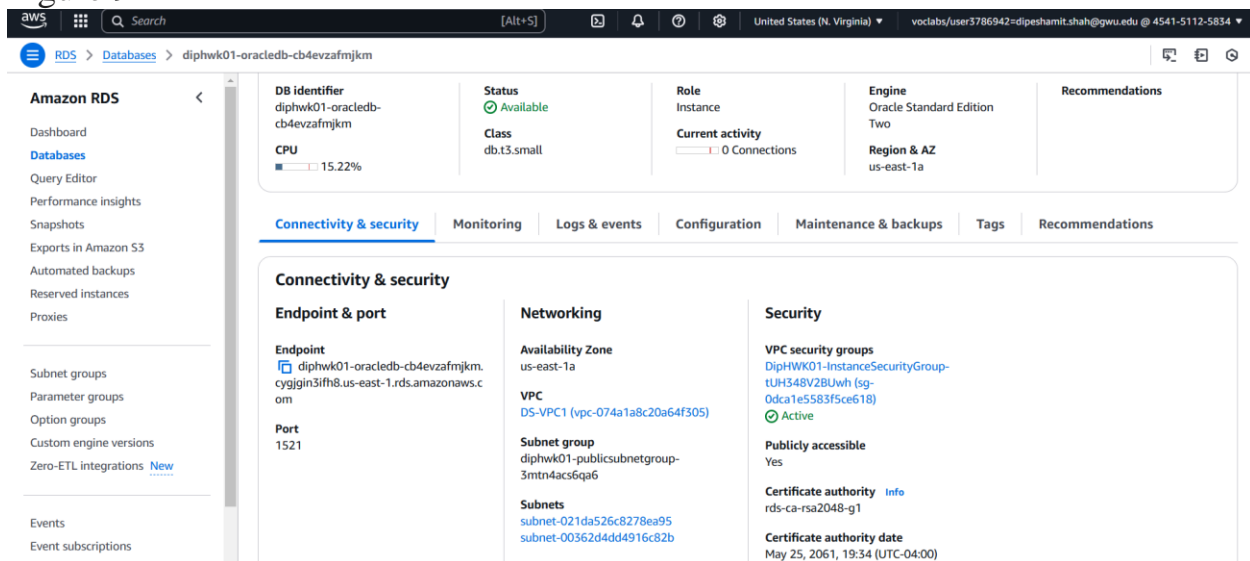
1. Oracle RDS Instance:

- **Endpoint:** This is a DNS address generated by AWS. You can find it in the RDS console under the "Connectivity & security" tab of your Oracle instance.
- **Port Number:** The default port for Oracle DB is 1521.

2. PostgreSQL RDS Instance:

- **Endpoint:** Similar to the Oracle instance, this will be a DNS address listed in the "Connectivity & security" tab of your PostgreSQL instance.
- **Port Number:** The default port for PostgreSQL is 5432.

Figure 9



Write the following items into a notepad to remember for future use:

Click on the Oracle instance and from the Connectivity and Security tab copy the database endpoint and the port into a notepad.

DB End Point:

yvhwk01-oracledb-9ancdarwwnom.chmk3fecltez.us-east-1.rds.amazonaws.com

Port: 1521

Then Click on the Configuration tab and copy the DB Name and the Master username into a notepad

DB Name: DB 1

Master Username: oracleuser

Detailed Description of Part 3:

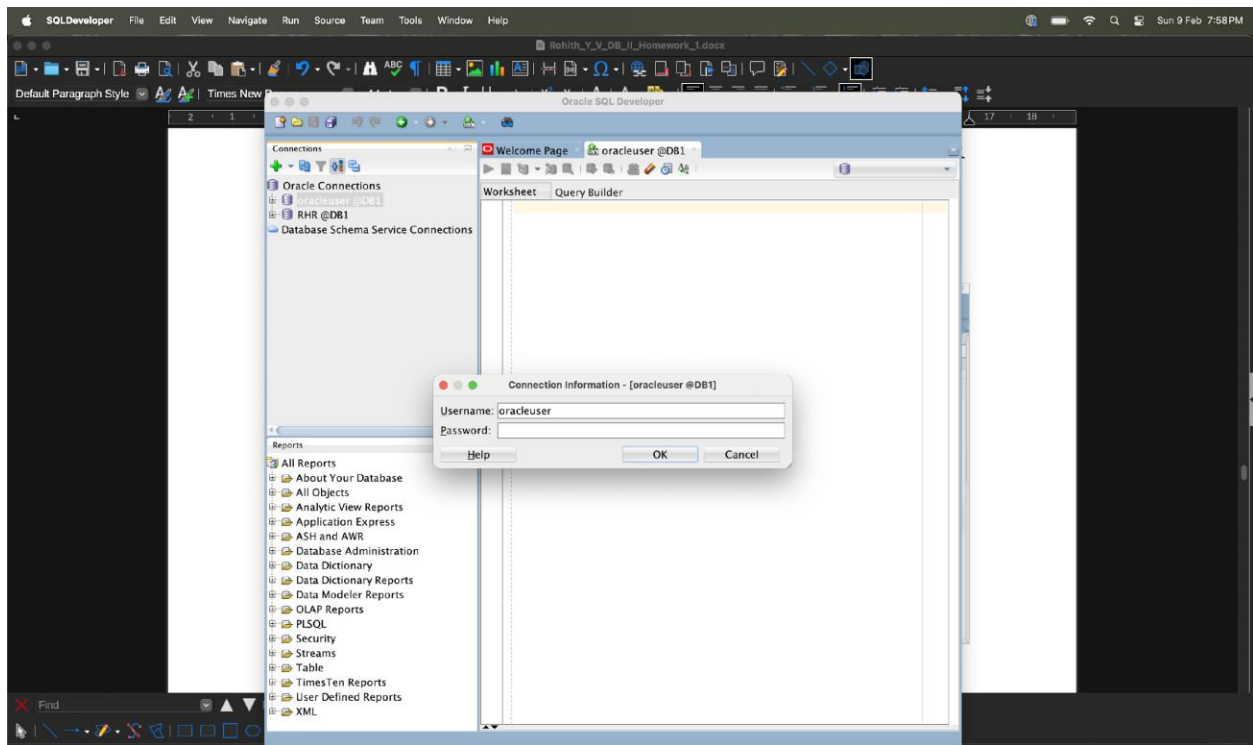
Part 3:

Use the Oracle SQL Developer to Create a connection to the “orauser” administrator userid and the HR database Schema Userid

On the Oracle SQL Developer, proceed as follows:

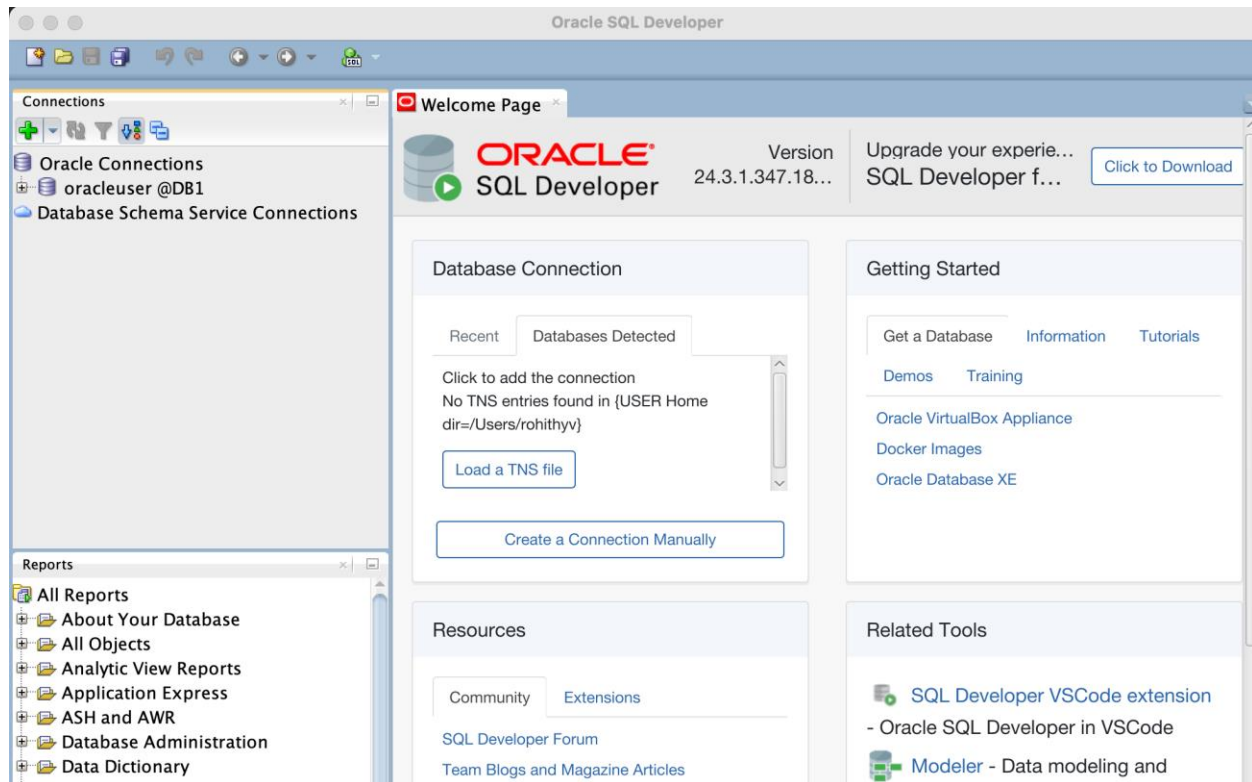
- Connect to the Oracle administrator “oracleuser”
- Create the HR Oracle database userid. This will be the HR database schema owner userid. Use the script “Create_User.sql”.
- Disconnect from the Oracle administrator userid “oracleuser”
- Connect to the Oracle HR userid. This is the HR database schema owner userid
- Execute the script “Create_HR_Database_Schema.sql” to load the HR Database Schema into the Oracle userid HR
- Then you will work on a few SQL and PL/SQL practice exercises using the HR database schema.

Figure 10



Note: Start the Oracle SQL Developer and create an Oracle SQL Developer connection to your Oracle administrator userid “oracleuser”.

Figure 11

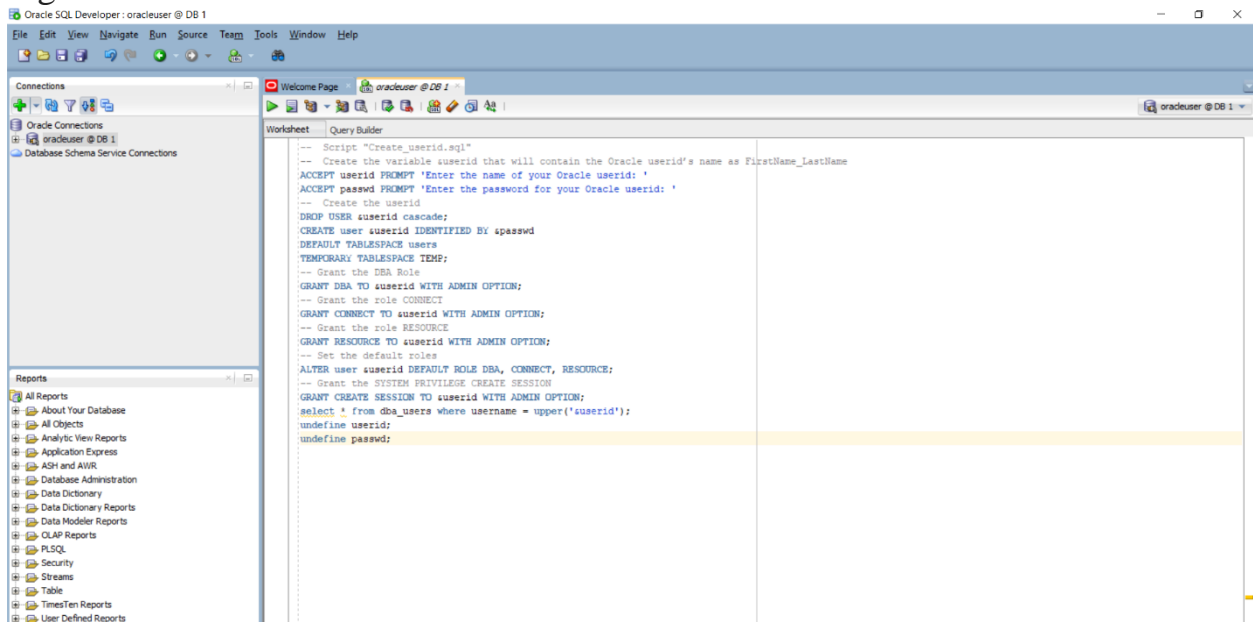


Note: I reviewed the Oracle SQL Developer interface's welcome page, which includes sections for database connections, reports, resources, and related tools, aiding in database management and development tasks.

Key Points:

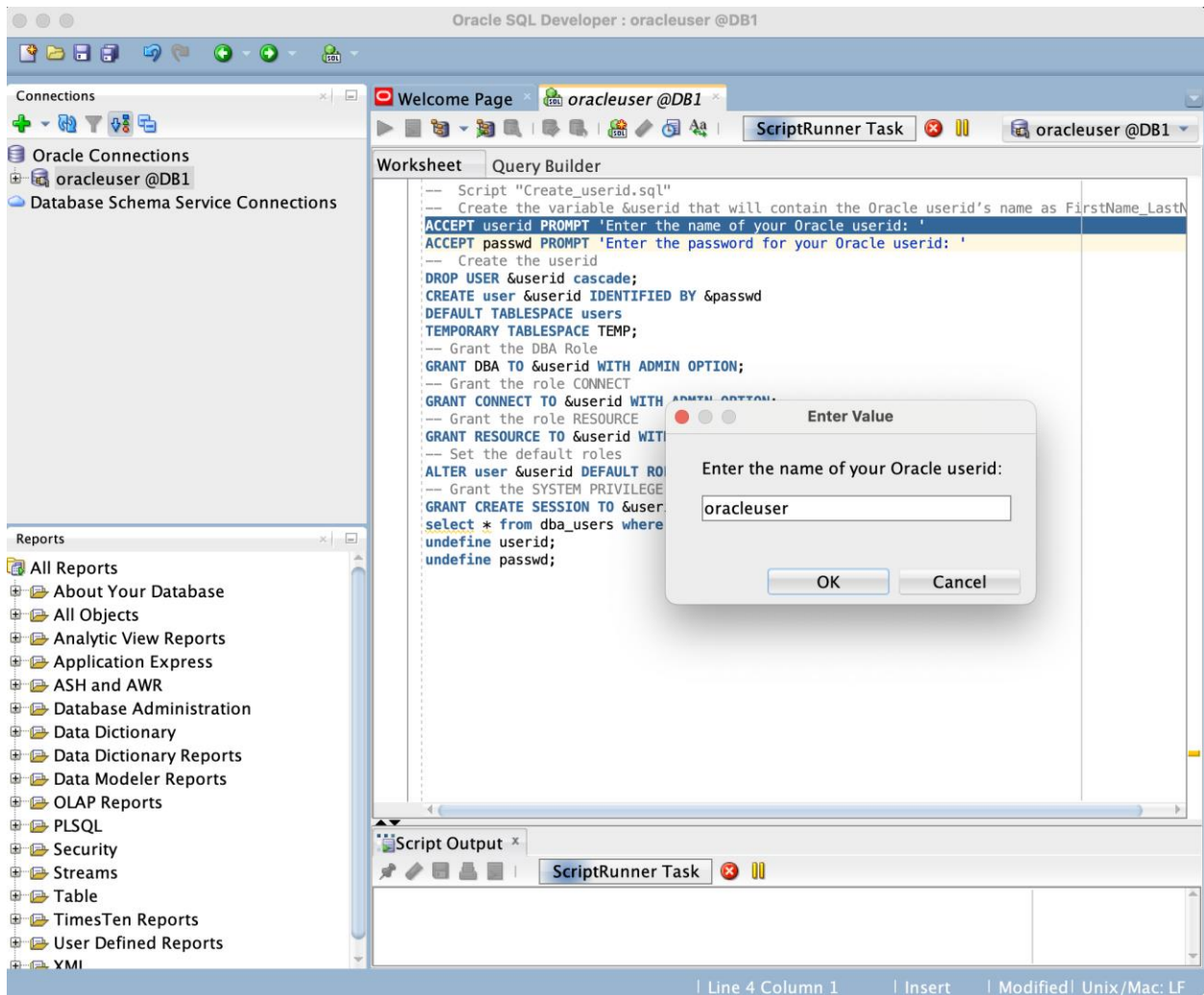
1. Database connections section for quick access.
2. Reports section for generating and viewing reports.
3. Resources and tools for efficient database management.
4. User-friendly interface for ease of use.

Figure 12



Note: Copy the script “Create_User.sql” to the SQL Worksheet and execute it to create your own HR userid that will hold the Oracle HR database schema.

Figure 13



Note: This is the Oracle SQL Developer interface, running a script to create a new Oracle user. The script includes commands for user creation, role assignment, and privilege setting, with prompts for user ID and password.

Key Points:

1. Oracle SQL Developer interface.
2. Script for creating a new Oracle user.
3. Commands for user creation, role assignment, and privilege setting.
4. Prompts for user ID and password input

Connections

- Oracle Connections
 - oracleuser @DB1
 - Database Schema Service Connecto

Worksheet | Query Builder

```

-- Script "Create_userid.sql"
-- Create the variable &userid that will contain the Oracle userid's name as Firstname_LastName
ACCEPT userid PROMPT 'Enter the name of your Oracle userid: '
ACCEPT passwd PROMPT 'Enter the password for your Oracle userid: '
-- Create the userid
DROP USER &userid cascade;
CREATE user &userid IDENTIFIED BY &passwd
DEFAULT TABLESPACE users
TEMPORARY TABLESPACE TEMP;
-- Grant the DBA Role
GRANT DBA TO &userid WITH ADMIN OPTION;
-- Grant the role CONNECT
GRANT CONNECT TO &userid WITH ADMIN OPTION;
-- Grant the role RESOURCE
GRANT RESOURCE TO &userid WITH ADMIN OPTION;
-- Set the default roles
ALTER user &userid DEFAULT ROLE DBA, CONNECT, RESOURCE;
-- Grant the SYSTEM PRIVILEGE CREATE SESSION
GRANT CREATE SESSION TO &userid WITH ADMIN OPTION;
select * from dba_users where username = upper('&userid');
undefine userid;
undefine passwd;
          
```

Script Output

Task completed in 402.278 seconds

USERNAME	USER_ID						
PASSWORD							
ACCOUNT_STATUS	LOCK_DATE	EXPIRY_DATE	DEFAULT_TABLESPACE	TEMPORARY_TABLESPACE	LOCAL_TEMP_TABLESPACE	CREATED	PROFILE
EXTERNAL_NAME							
PASSWORD_VERSIONS	E	AUTHENT	P	CON	LAST_LOGIN		
ORACLEUSER				0	INH	DEFAULT_COLLATION	
OPEN	USERS		TEMP	TEMP	09-02-25 DEFAULT		
USERNAME	USER_ID						
PASSWORD							
ACCOUNT_STATUS	LOCK_DATE	EXPIRY_DATE	DEFAULT_TABLESPACE	TEMPORARY_TABLESPACE	LOCAL_TEMP_TABLESPACE	CREATED	PROFILE
EXTERNAL_NAME							
PASSWORD_VERSIONS	E	AUTHENT	P	CON	LAST_LOGIN		
				0	INH	DEFAULT_COLLATION	
IMP ALL PASS							

116 12C N PASSWORD N NO 09-02-25 12:47:58.000000000 PM AMERICA/NEW_YORK N NO USING_NLS_CMP NO NO 09-

Note: This is the Oracle SQL Developer interface with a script to create a new user. The script includes commands for creating the user, assigning roles, and setting privileges, with the output displaying user details. Table is created.

Key Points:

1. Script to create a new Oracle database user.
2. Commands for user creation, role assignment, and privilege setting.
3. Output section showing user details.
4. Oracle SQL Developer interface.

The screenshot shows the Oracle SQL Developer interface. The 'Database Connections' pane on the left shows the 'Database Schemas' tree. The 'Query Builder' window displays a query to create a user 'suser' and a table 'users' with columns 'username' and 'password'.

Query Builder Window:

```

userid.sql
able suserid that will contain the Oracle userid's name as FirstName_LastName
f 'Enter the name of your Oracle userid: '
f 'Enter the password for your Oracle userid: '
id
scade;
IDENTIFIED BY spasswd
users
TEMP;
WITH ADMIN OPTION;
CONNECT
serial WITH ADMIN OPTION;
SOURCE
userid WITH ADMIN OPTION;
roles
DEFAULT ROLE DBA, CONNECT, RESOURCE;
PRIVILEGE CREATE SESSION
TO suserid WITH ADMIN OPTION;
ers where username = upper('suserid');
  
```

Database Connections Pane:

- Connect
- Disconnect
- Reconnect
- Reset Password...
- Schema Browser
- Find DB Object
- Regame Connection...
- Delete
- Add to Folder
- Remove from Folder
- Apply Filter...
- Clear Filter
- Debug...
- Manage Database
- Migration Repository
- Manage Features
- Gather Schema Statistics...
- Recompile Schema ...
- XML DB Protocol server configuration
- Generate DB Doc...
- Open SQL Worksheet
- Properties...
- ASH and AWR
- Database Administration
- Data Dictionary
- Data Dictionary Reports
- Data Modeler Reports
- OLAP Reports
- PLSQL
- Security
- Streams
- Table
- TimesTen Reports
- User Defined Reports
- XML

Query Results:

ACCOUNT_STATUS	LOCK_DATE	EXPIRY_DATE	DEFAULT_TABLESPACE	TEMPORARY_TABLESPACE	LOCAL_TEMP_TABLESPACE	CREATED	PROFILE
PASSWORD_VERSIONS	E	AUTHENT	P	COM	LAST_LOGIN	0	TEMP
ORACLEUSER						82	
OPEN			USERS	TEMP	TEMP	09-02-25	DEFAULT
USERNAME						USER_ID	
PASSWORD							

Query Results (Continued):

ACCOUNT_STATUS	LOCK_DATE	EXPIRY_DATE	DEFAULT_TABLESPACE	TEMPORARY_TABLESPACE	LOCAL_TEMP_TABLESPACE	CREATED	PROFILE
PASSWORD_VERSIONS	E	AUTHENT	P	COM	LAST_LOGIN	0	TEMP
ORACLEUSER						82	
OPEN			USERS	TEMP	TEMP	09-02-25	DEFAULT
USERNAME						USER_ID	
PASSWORD							

Query Results (Continued):

ACCOUNT_STATUS	LOCK_DATE	EXPIRY_DATE	DEFAULT_TABLESPACE	TEMPORARY_TABLESPACE	LOCAL_TEMP_TABLESPACE	CREATED	PROFILE
PASSWORD_VERSIONS	E	AUTHENT	P	COM	LAST_LOGIN	0	TEMP
ORACLEUSER						82	
OPEN			USERS	TEMP	TEMP	09-02-25	DEFAULT
USERNAME						USER_ID	
PASSWORD							

Query Results (Continued):

ACCOUNT_STATUS	LOCK_DATE	EXPIRY_DATE	DEFAULT_TABLESPACE	TEMPORARY_TABLESPACE	LOCAL_TEMP_TABLESPACE	CREATED	PROFILE
PASSWORD_VERSIONS	E	AUTHENT	P	COM	LAST_LOGIN	0	TEMP
ORACLEUSER						82	
OPEN			USERS	TEMP	TEMP	09-02-25	DEFAULT
USERNAME						USER_ID	
PASSWORD							

Query Results (Continued):

ACCOUNT_STATUS	LOCK_DATE	EXPIRY_DATE	DEFAULT_TABLESPACE	TEMPORARY_TABLESPACE	LOCAL_TEMP_TABLESPACE	CREATED	PROFILE
PASSWORD_VERSIONS	E	AUTHENT	P	COM	LAST_LOGIN	0	TEMP
ORACLEUSER						82	
OPEN			USERS	TEMP	TEMP	09-02-25	DEFAULT
USERNAME						USER_ID	
PASSWORD							

Query Results (Continued):

ACCOUNT_STATUS	LOCK_DATE	EXPIRY_DATE	DEFAULT_TABLESPACE	TEMPORARY_TABLESPACE	LOCAL_TEMP_TABLESPACE	CREATED	PROFILE
PASSWORD_VERSIONS	E	AUTHENT	P	COM	LAST_LOGIN	0	TEMP
ORACLEUSER						82	
OPEN			USERS	TEMP	TEMP	09-02-25	DEFAULT
USERNAME						USER_ID	
PASSWORD							

Query Results (Continued):

ACCOUNT_STATUS	LOCK_DATE	EXPIRY_DATE	DEFAULT_TABLESPACE	TEMPORARY_TABLESPACE	LOCAL_TEMP_TABLESPACE	CREATED	PROFILE
PASSWORD_VERSIONS	E	AUTHENT	P	COM	LAST_LOGIN	0	TEMP
ORACLEUSER						82	
OPEN			USERS	TEMP	TEMP	09-02-25	DEFAULT
USERNAME						USER_ID	
PASSWORD							

Query Results (Continued):

ACCOUNT_STATUS	LOCK_DATE	EXPIRY_DATE	DEFAULT_TABLESPACE	TEMPORARY_TABLESPACE	LOCAL_TEMP_TABLESPACE	CREATED	PROFILE
PASSWORD_VERSIONS	E	AUTHENT	P	COM	LAST_LOGIN	0	TEMP
ORACLEUSER						82	
OPEN			USERS	TEMP	TEMP	09-02-25	DEFAULT
USERNAME						USER_ID	
PASSWORD							

Query Results (Continued):

ACCOUNT_STATUS	LOCK_DATE	EXPIRY_DATE	DEFAULT_TABLESPACE	TEMPORARY_TABLESPACE	LOCAL_TEMP_TABLESPACE	CREATED	PROFILE
PASSWORD_VERSIONS	E	AUTHENT	P	COM	LAST_LOGIN	0	TEMP
ORACLEUSER						82	
OPEN			USERS	TEMP	TEMP		

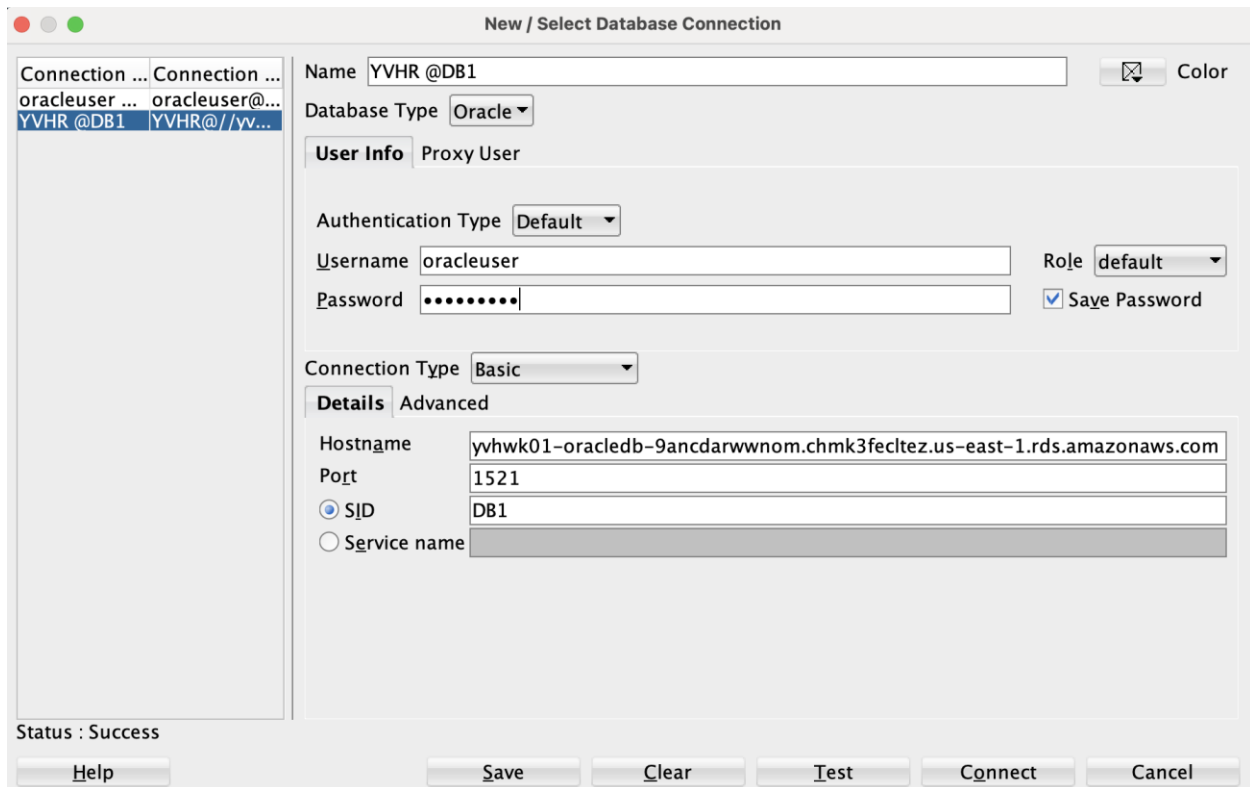
Key Points:

1. "Disconnect" option in the context menu under "Oracle Connections."
2. Connected database session.
3. SQL code visible in the worksheet.
4. User information displayed in the results pane.

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Figure 16

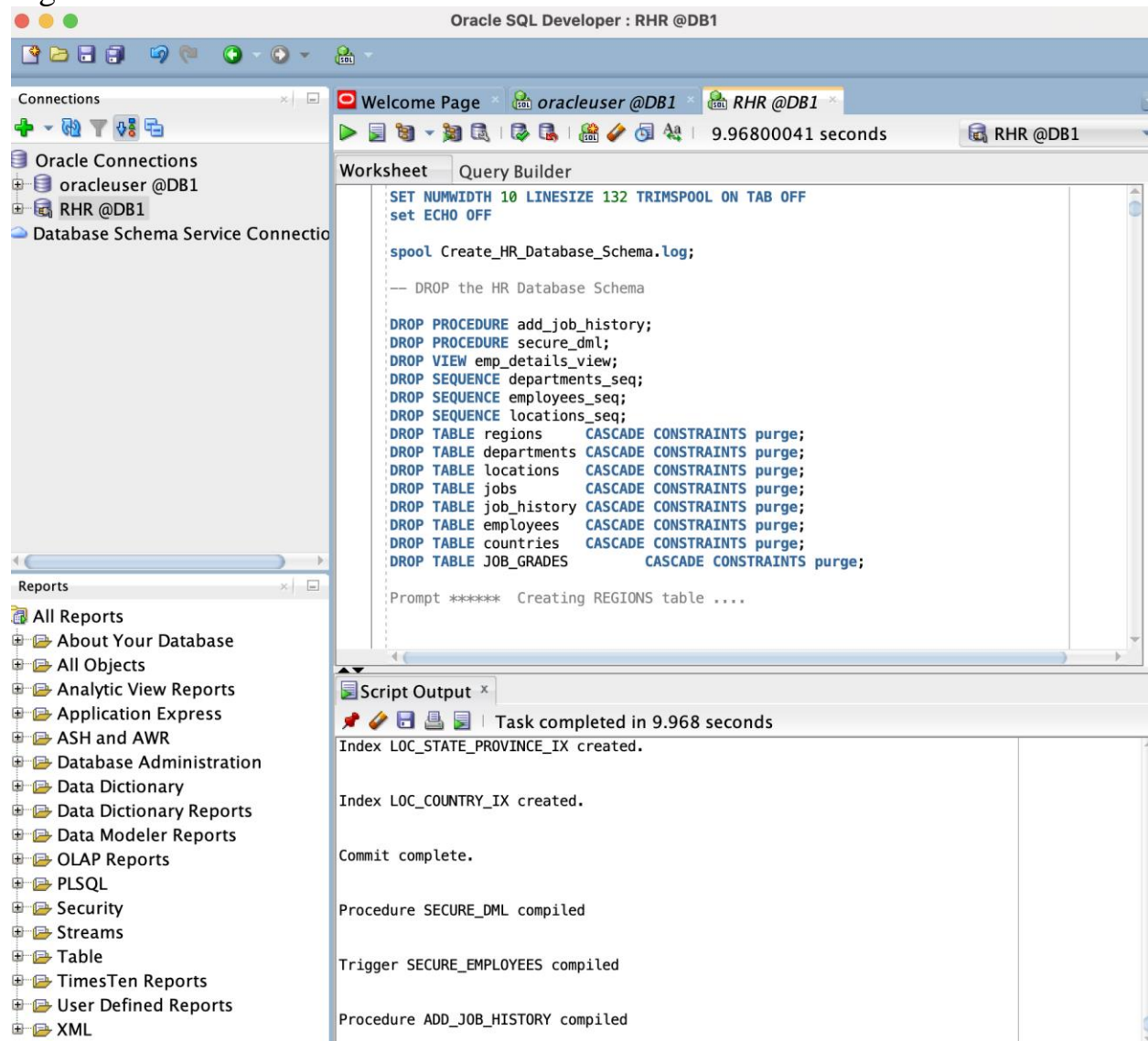


Note: I reviewed the Oracle SQL Developer interface's "New / Select Database Connection" window. The connection named "YVHR @DB1" shows a successful connection to the Oracle database. Next, I proceeded to load and execute the "Create_HR_Database_Schema.sql" script.

Key Points:

1. **Connection Name:** YVHR @DB1
 - **Username:** oracleuser
 - **Hostname:**
 - **Port:** 1521
 - **Status:** Success
2. Load "Create_HR_Database_Schema.sql" into the SQL Worksheet.
3. Execute the script to build the HR database schema.
4. Use "Run the Script" icon or F5 to run the script.

Figure 17



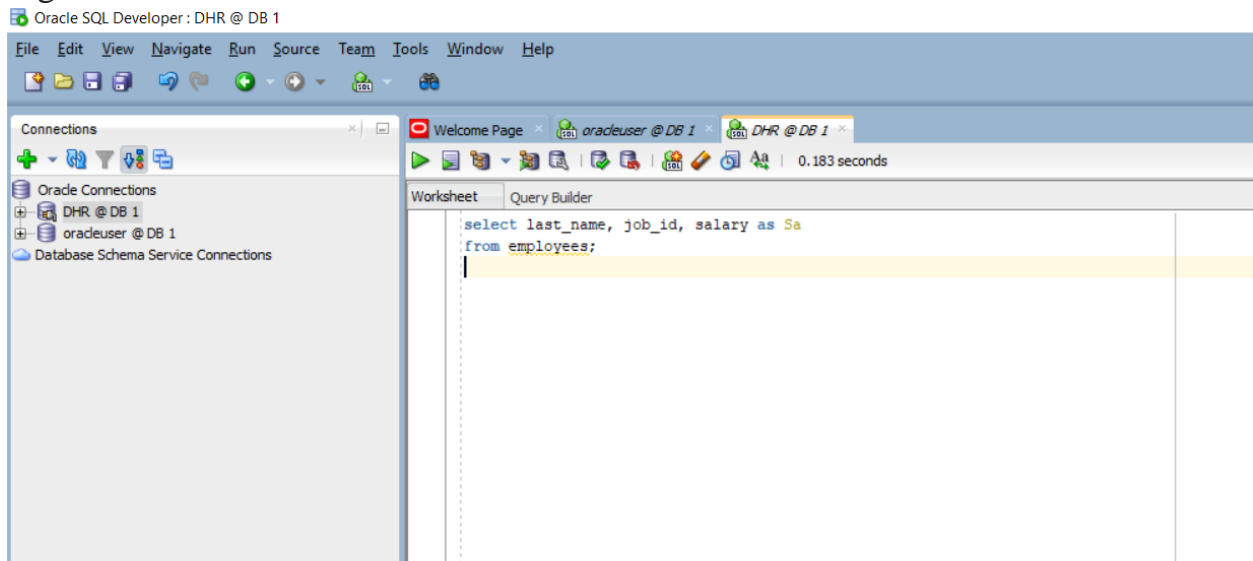
Note: In SQL Developer, create a connection for Oracle database schema owner HR i.e. (RHR @DB1) userid created in a previous step and proceed to connect to it. We are now ready to load the HR database schema and populate the tables with test data. Once connected to the oracle userid HR, proceed to load the contents of the script “Create_HR_Database_Schema.sql” into the SQL Worksheet and execute the script to build your HR database schema under your HR database schema owner userid RHR.

Executed a SQL and PL/SQL commands:

```
select last_name, job_id, salary as Sa
from employees;
```

The script displays the columns listed in the select statement and column salary has column name “SA”

Figure 18

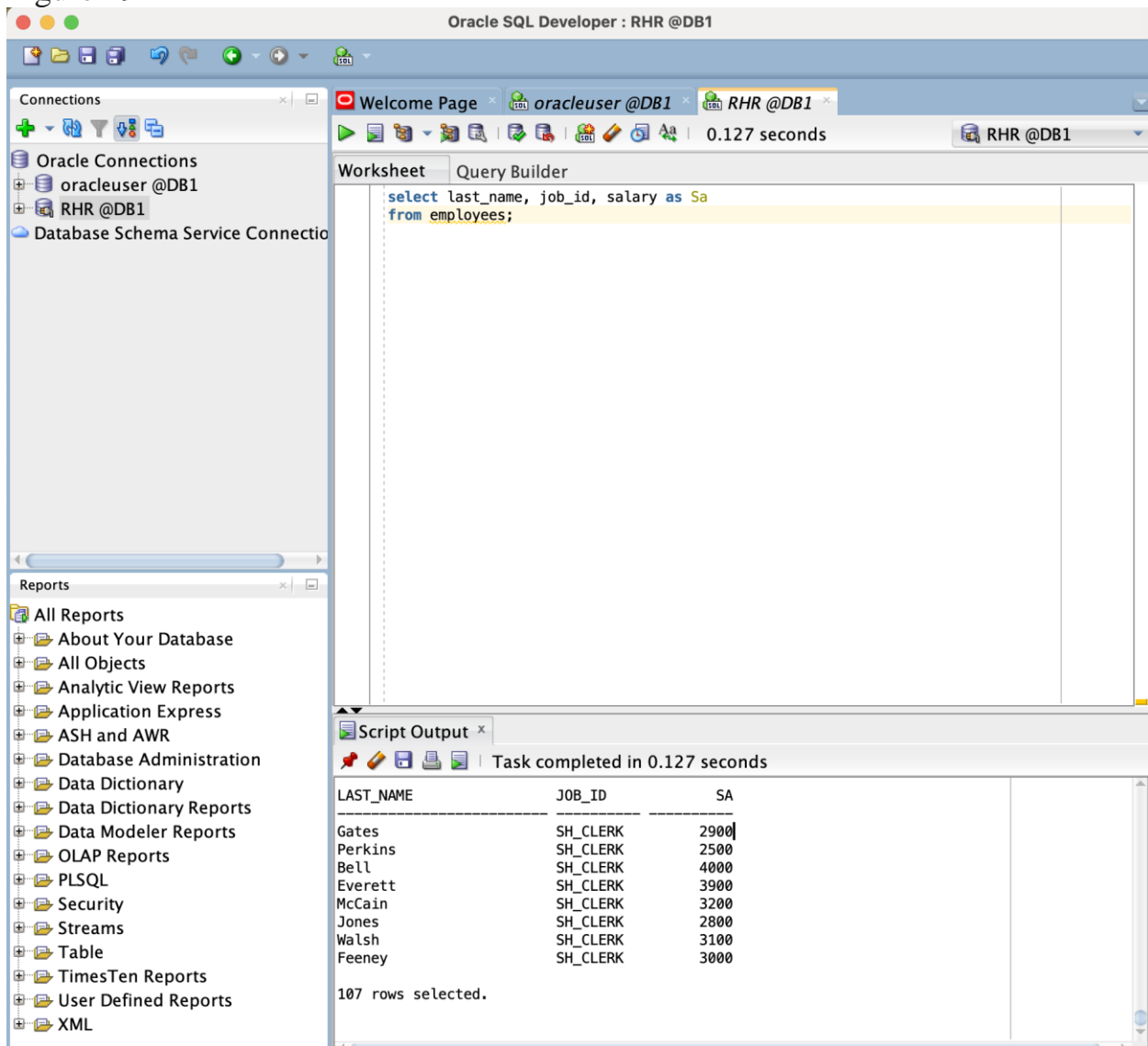


Note: Click on the “Run the Script” icon or click on F5. Execute a few SQL and PL/SQL commands:

```
select last_name, job_id, salary as Sa
from employees;
```

The script displays the columns listed in the select statement & column salary has column name “SA”.

Figure 19



Note: Oracle SQL Developer interface, which shows a query executed on the "employees" table, displaying last names, job IDs, and salaries. The query successfully selected 107 rows. The script displays the columns listed in the select statement & column salary has column name "SA".

Key Points:

1. Connected to the Oracle database.
2. Executed query on the "employees" table.
3. Selected columns: last_name, job_id, and salary.
4. Output displayed 107 rows of employee data.

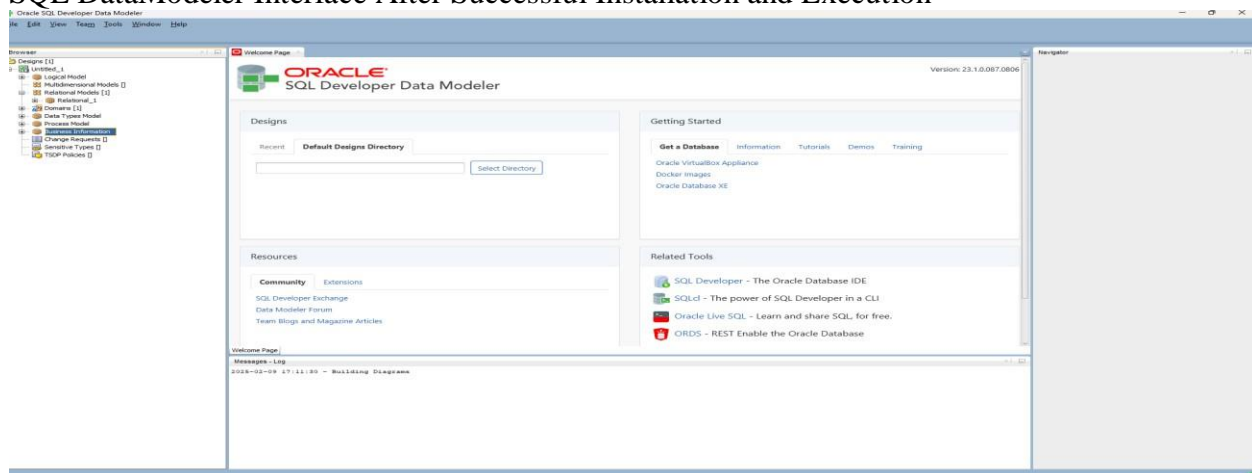
Part 4: Reverse Engineering the HR Database Schema in Oracle SQL Developer Data Modeler

1. Open Oracle SQL Developer Data Modeler: Launch the Oracle SQL Developer Data Modeler application
2. Import Data Dictionary: From the File menu, select Data Modeler > Import > Data Dictionary
3. Create Database Connection: The Data Dictionary Import Wizard will open. Click Add to create a new database connection. We had the connection details that we followed in Part 3.
4. Select Schema and Tables.
5. In the Data Dictionary Import Wizard, select the connection you just created , click Next
6. Choose the schema (e.g., HR) and click Next.
7. Select the tables you want to import (e.g., EMPLOYEES and DEPARTMENTS) and click Next. We selected all the tables.
8. Click Finish to import the selected tables into the Data Modeler
9. Review the log file created and click Close.

Reverse engineering the HR database schema in Oracle SQL Developer Data Modeler involves importing the existing database structure from an Oracle database instance. This process begins by opening Data Modeler, establishing a connection using credentials from Part 3, and selecting the HR schema for import. After choosing the necessary tables, the schema is successfully imported and displayed as a relational diagram, offering a clear visual representation of database relationships and structures. This approach facilitates efficient database modeling and analysis, allowing users to explore schema details through Data Modeler's tools and navigation features.

Figure 20

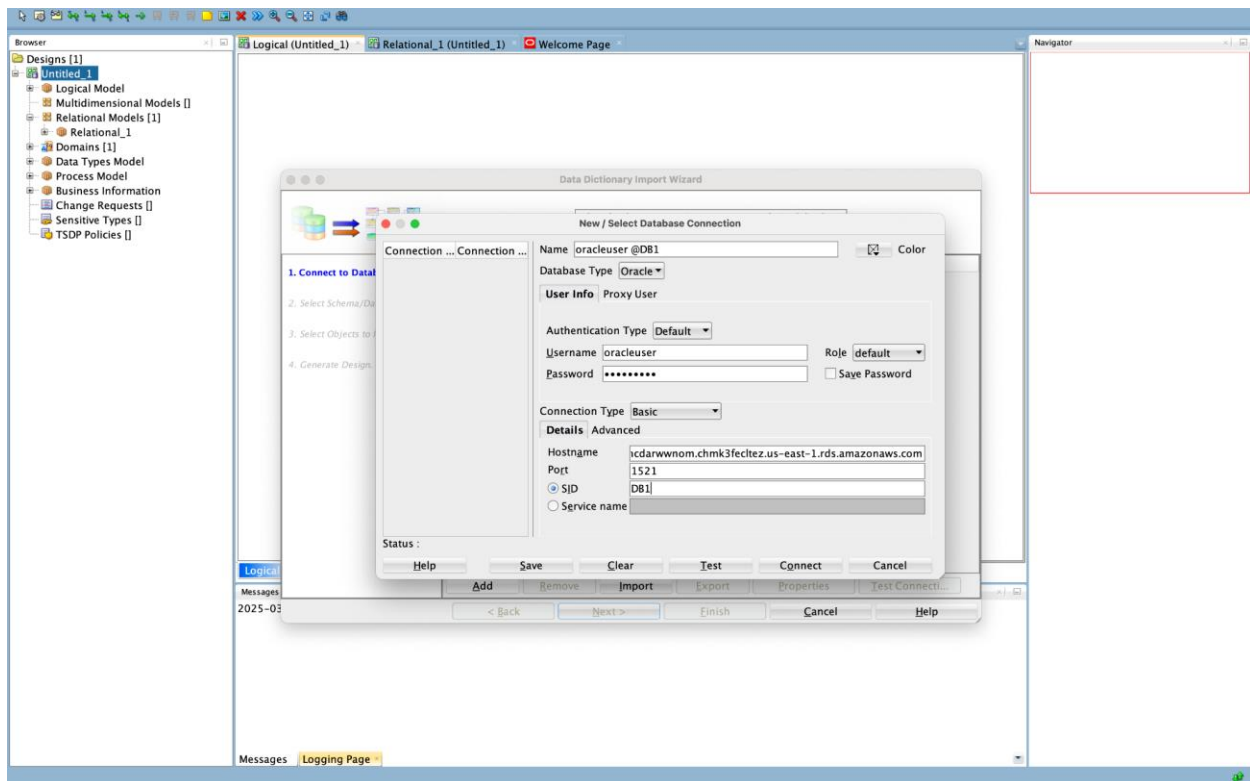
SQL DataModeler Interface After Successful Installation and Execution



Note: This figure shows the SQL DataModeler interface after successfully running datamodeler.exe. Users can now create connections and manage databases.

Figure 21

Importing Database Schema into Oracle SQL Developer Data Modeler

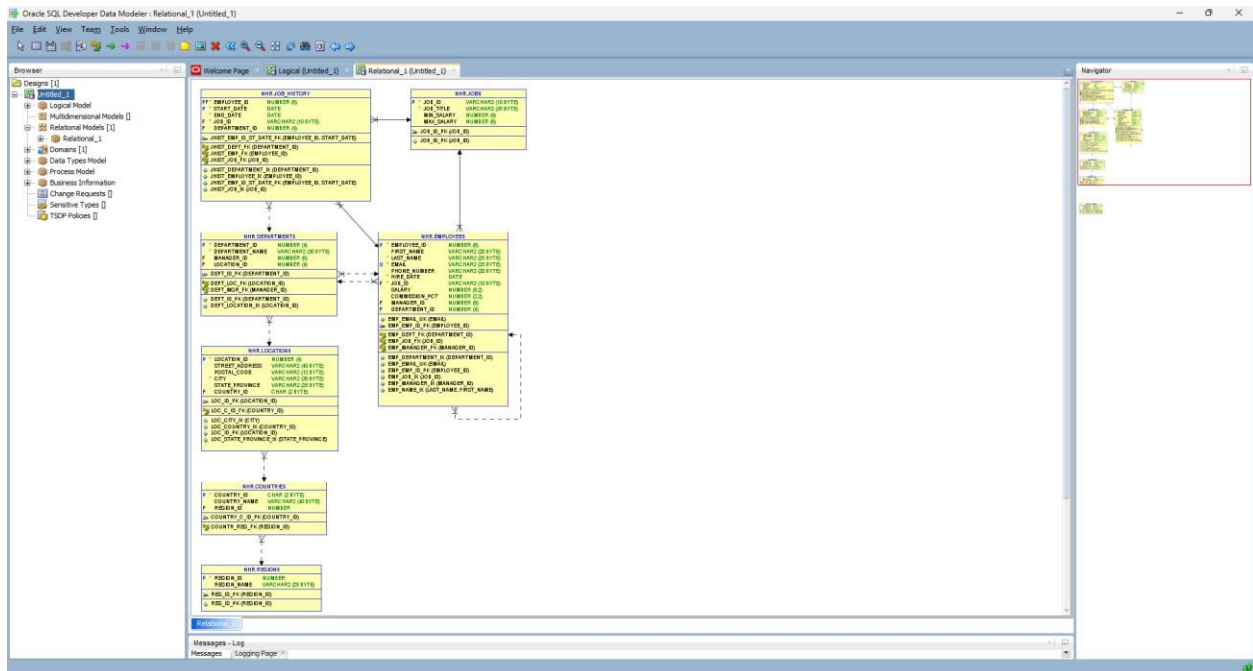


Note: This process outlines importing a database schema into Oracle SQL Developer Data Modeler. It involves launching the application, importing the Data Dictionary, establishing a database connection, selecting the schema and tables, and completing the import. This ensures that the selected tables, such as EMPLOYEES and DEPARTMENTS, are successfully integrated into the Data Modeler for further analysis and design.

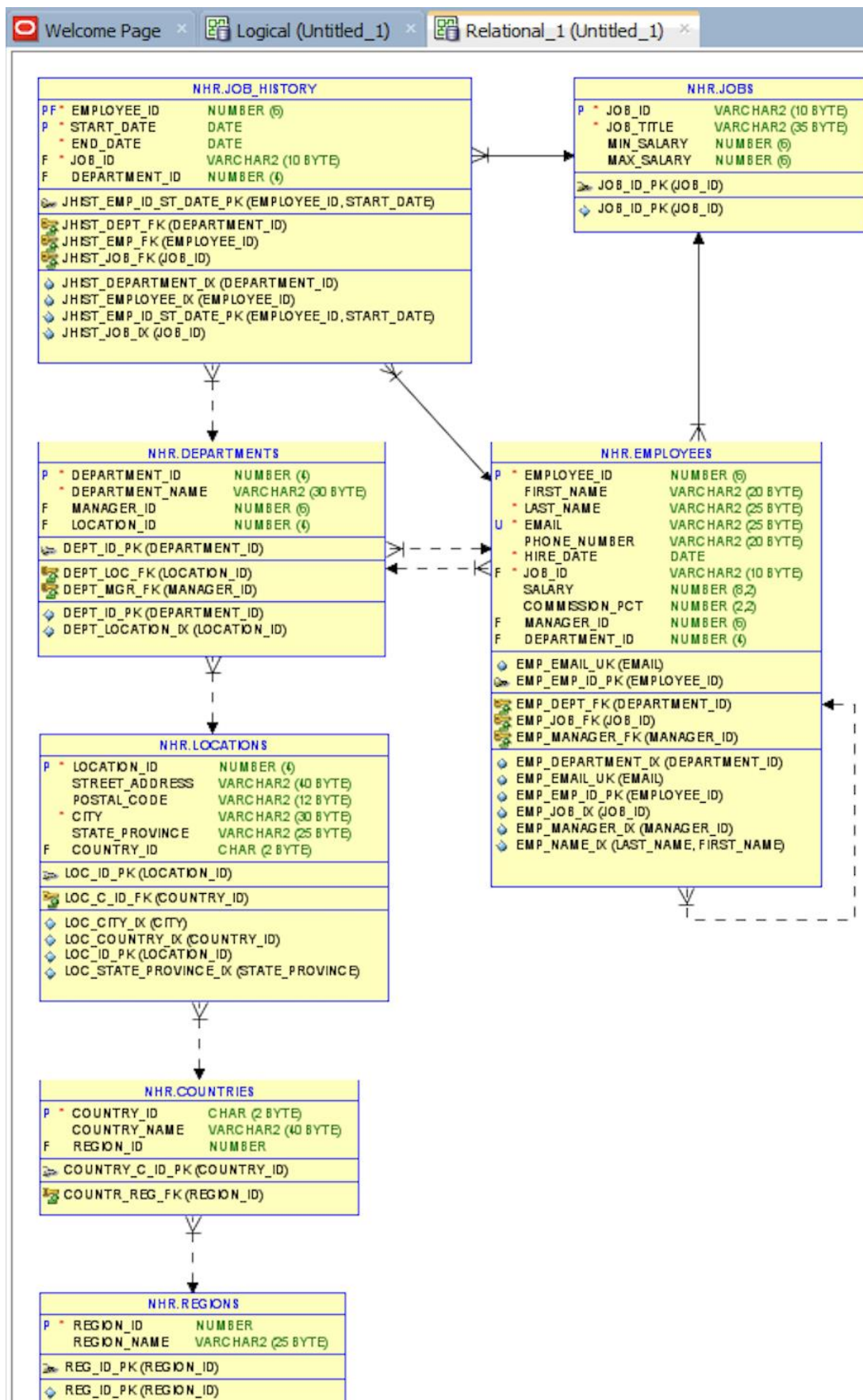
- **Connection Name:** oracleuser @DB1
- **Database Type:** Oracle
- **Authentication Type:** Default
- **Username:** oracleuser
- **Password:** *****
- **Role:** default
- **Connection Type:** Basic
- **Hostname:** yvhwk01-oracledb-9ancdarwwnom.chmk3fecltez.us-east-1.rds.amazonaws.com
- **Port:** 1521
- **SID:** DB1

Figure 22

Reverse Engineering the Database Schema into a Relational Diagram



Note. This step confirms the successful reverse engineering of the database schema in Oracle SQL Developer Data Modeler. The relational diagram visually represents the database structure, including tables, relationships, and constraints, allowing for better understanding and analysis of the schema.



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