MySQL Shell for Visual Studio Code

MySQL HeatWave's best companion for developers

Frédéric Descamps
Community Manager
Oracle MySQL
MySQL Belgian Days - February 2024

Who am I ?

about.me/lefred

Copyright @ 2024 Oracle and/or its affiliates.

Frédéric Descamps

- *@lefred*
- *MySQL Evangelist*
- *using MySQL since version 3.20*
- *devops believer*
- *likes* 🏀
- *living in* 🇧🇪
- *https://lefred.be*

Copyright @ 2024 Oracle and/or its affiliates.

MySQL HeatWave

Terminology

Copyright @ 2024 Oracle and/or its affiliates.

Terminology

- *OCI: Oracle Cloud Infrastructure*
- *MySQL HeatWave:*
  - *MySQL HeatWave Database Service (**MHS**)*
  - *MySQL Database Service (**MDS**)*
- *MySQL HeatWave Cluster:*
  - *OLTP and OLAP query accelerator*
  - *RAPID secondary engine*

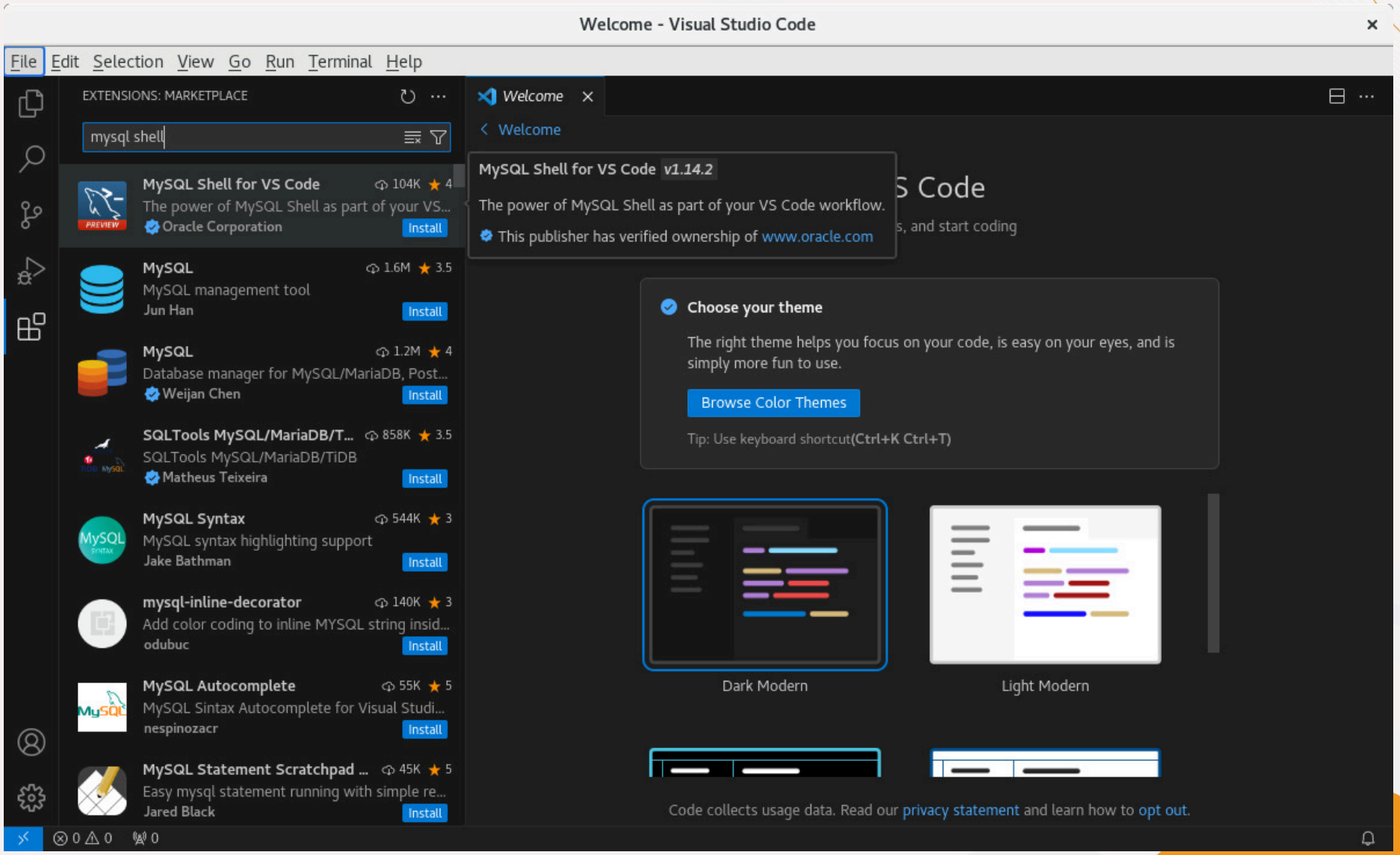
Copyright @ 2024 Oracle and/or its affiliates.

MySQL Shell for Visual Studio Code

Integration with MySQL HeatWave on OCI

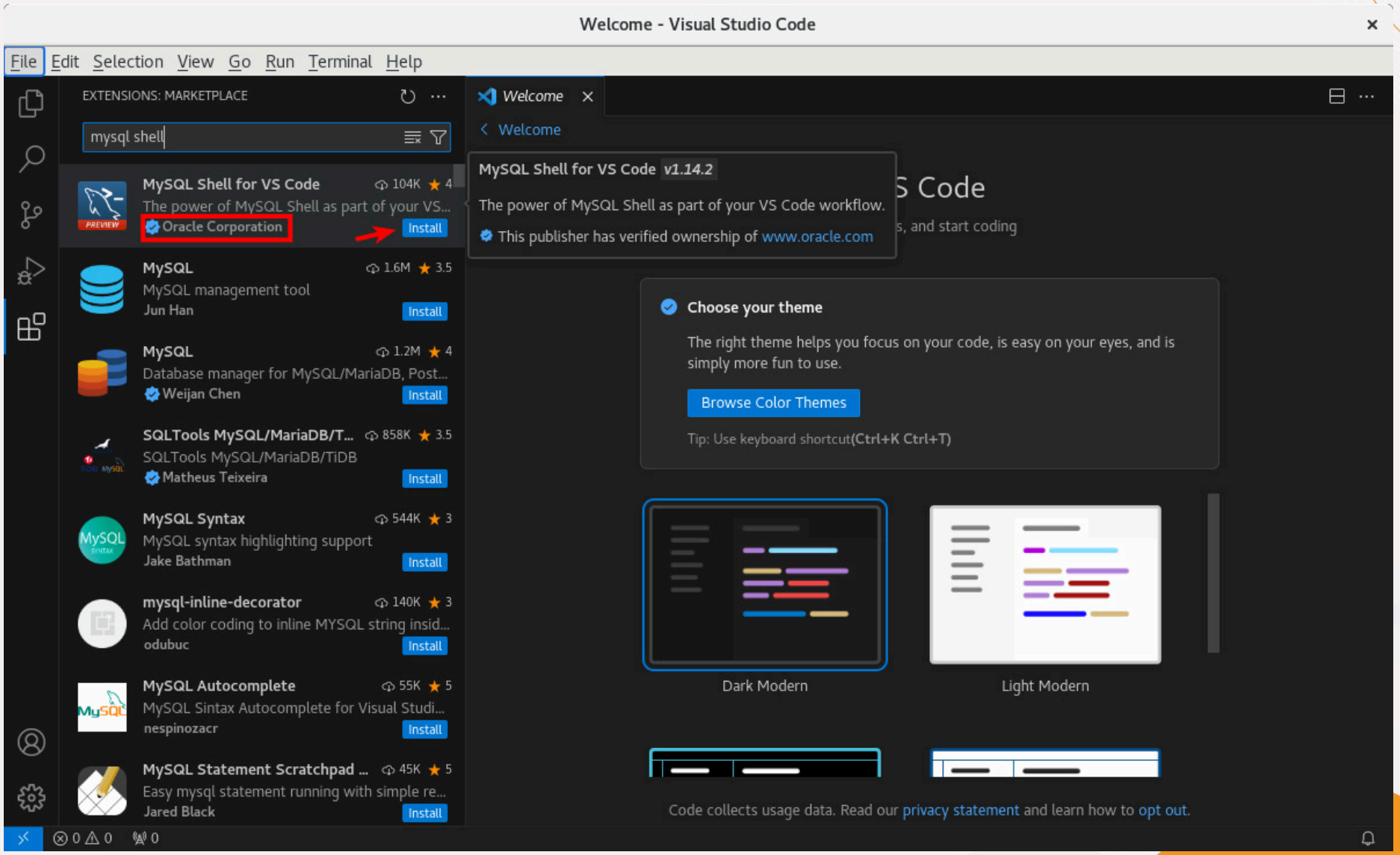
Copyright @ 2024 Oracle and/or its affiliates.

Installation



Copyright @ 2024 Oracle and/or its affiliates.

Installation

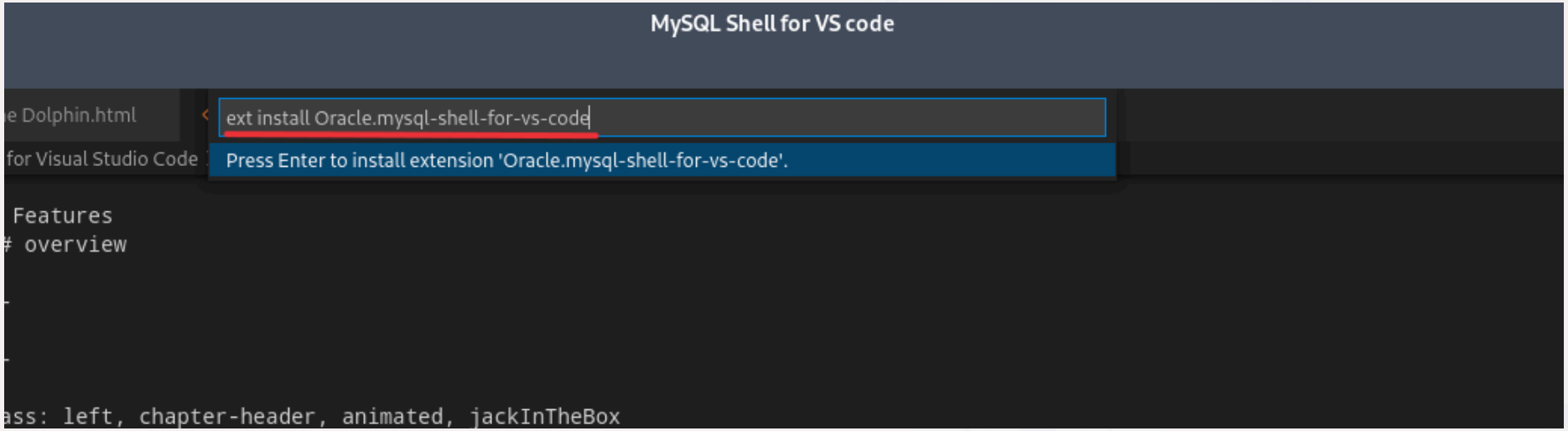


Copyright @ 2024 Oracle and/or its affiliates.

Installation

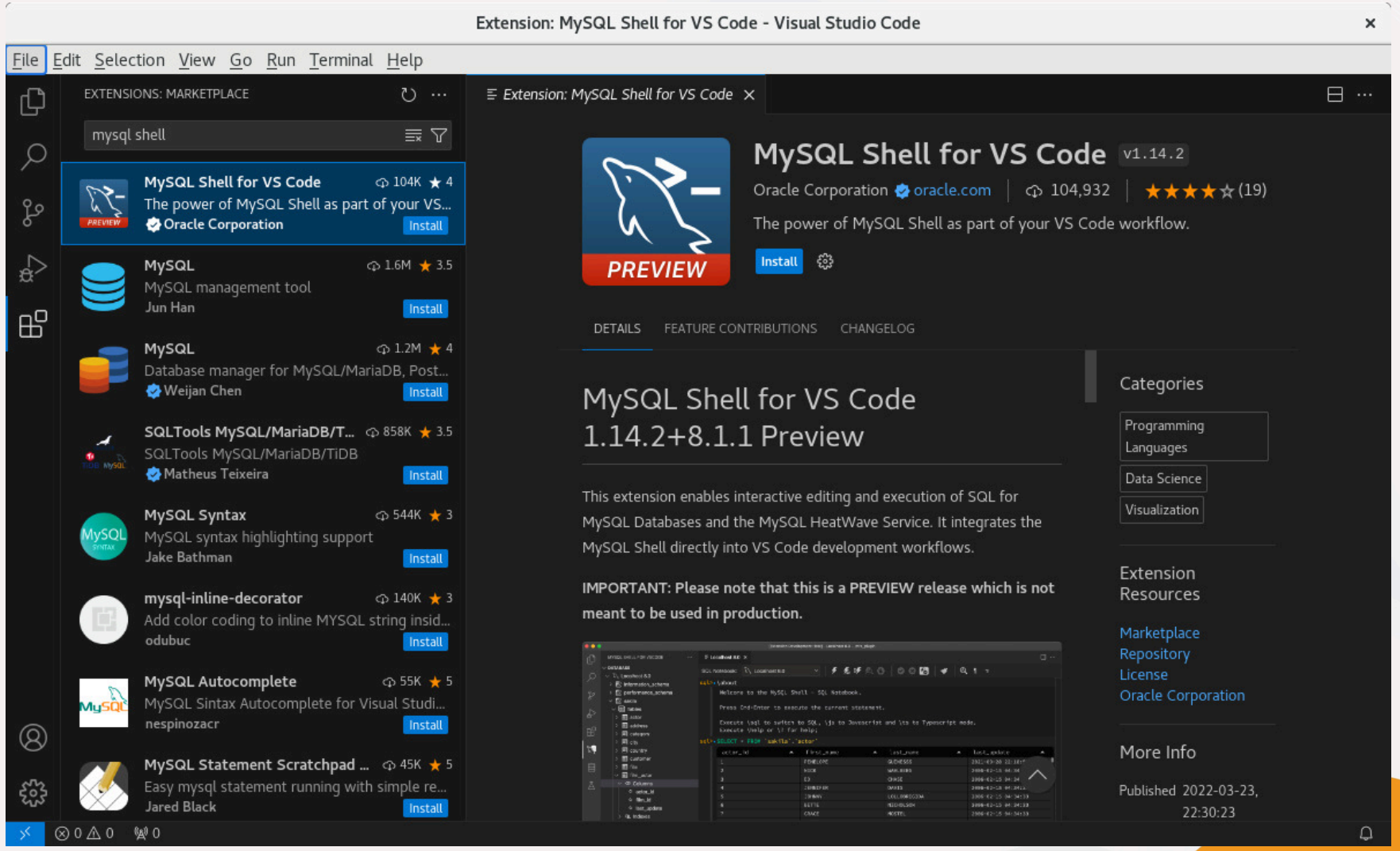
Or just use CTRL-P in Visual Studio code and paste the following command:

```
ext install Oracle.mysql-shell-for-vs-code
```



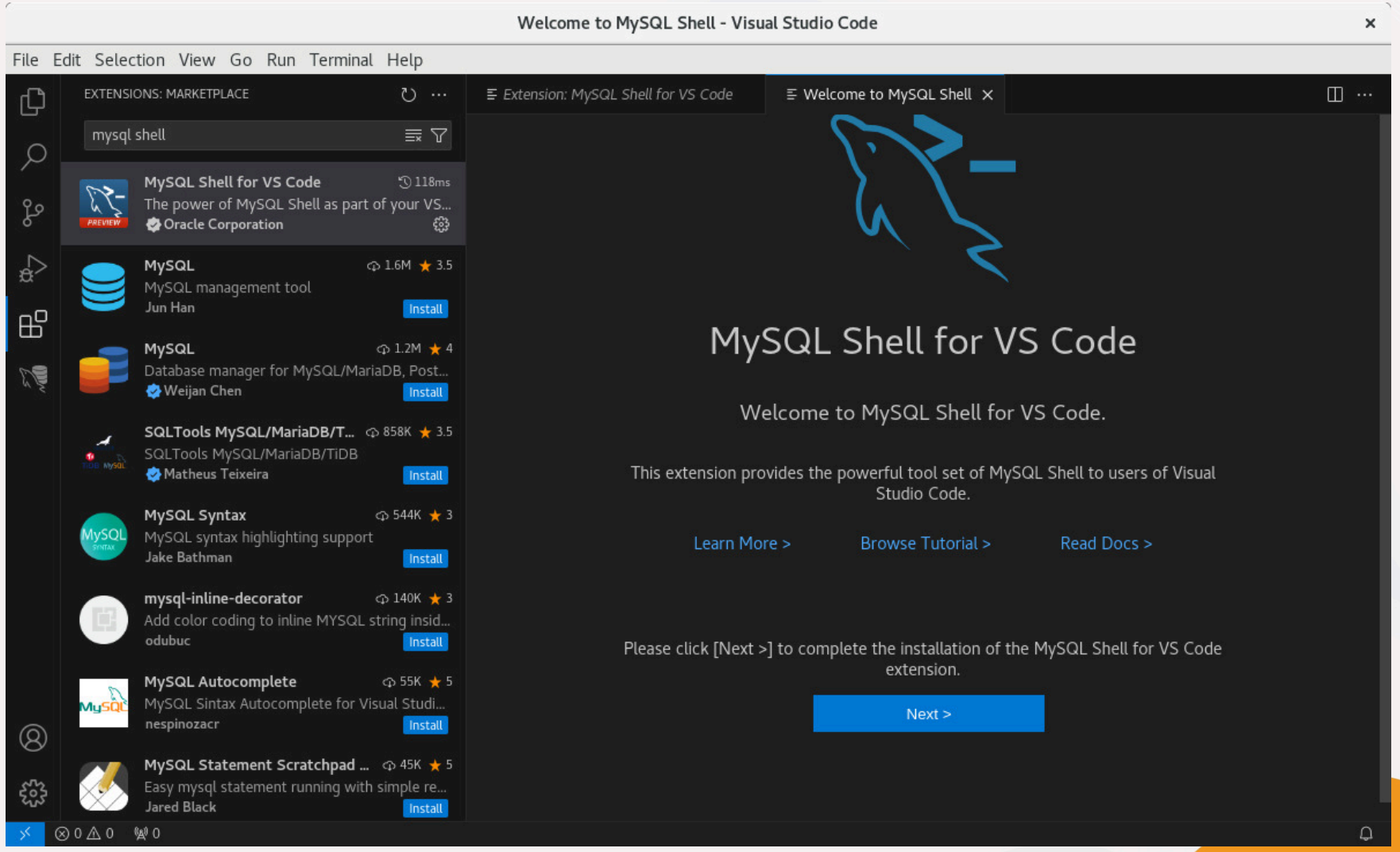
Copyright @ 2024 Oracle and/or its affiliates.

Installation



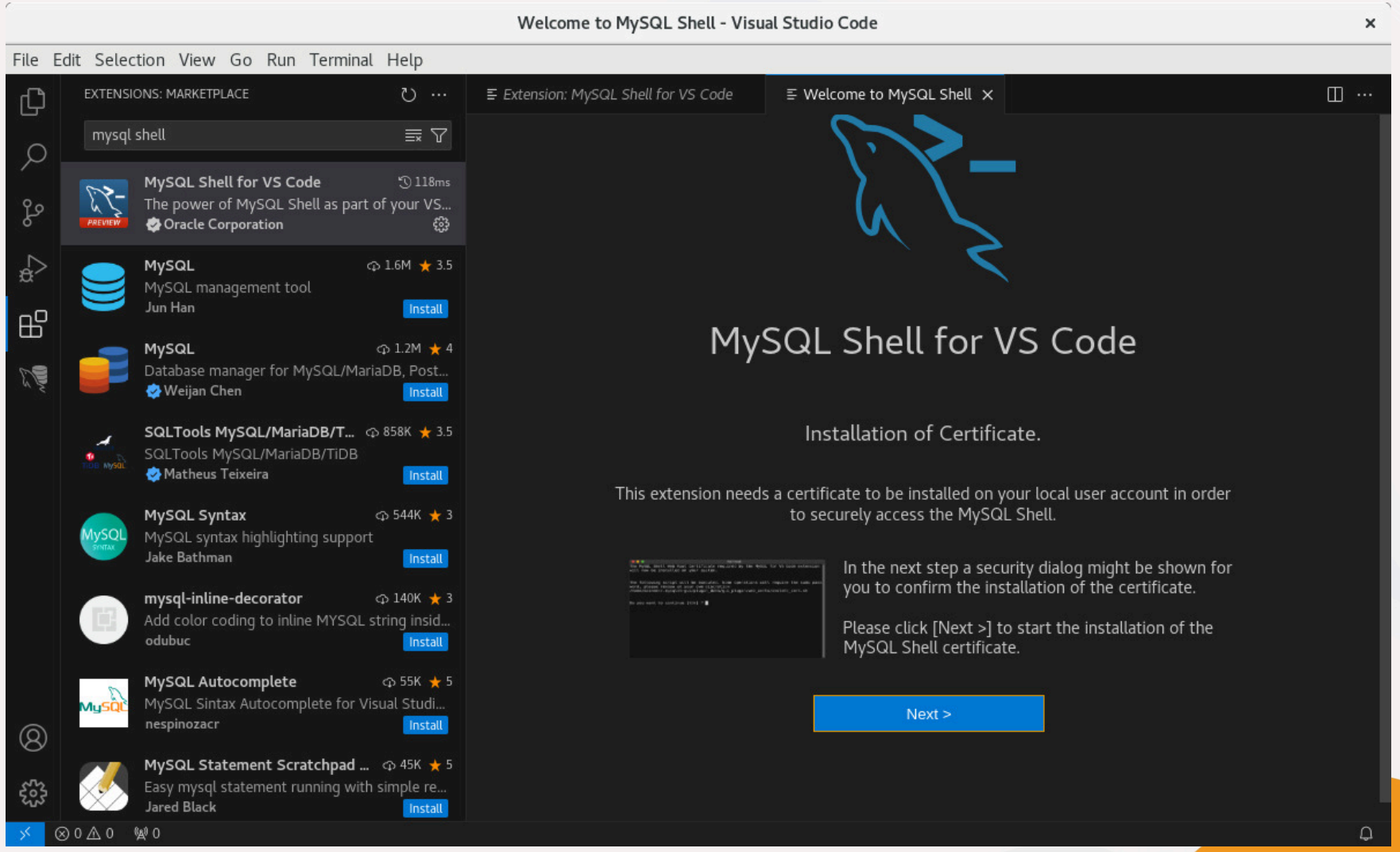
Copyright @ 2024 Oracle and/or its affiliates.

Installation



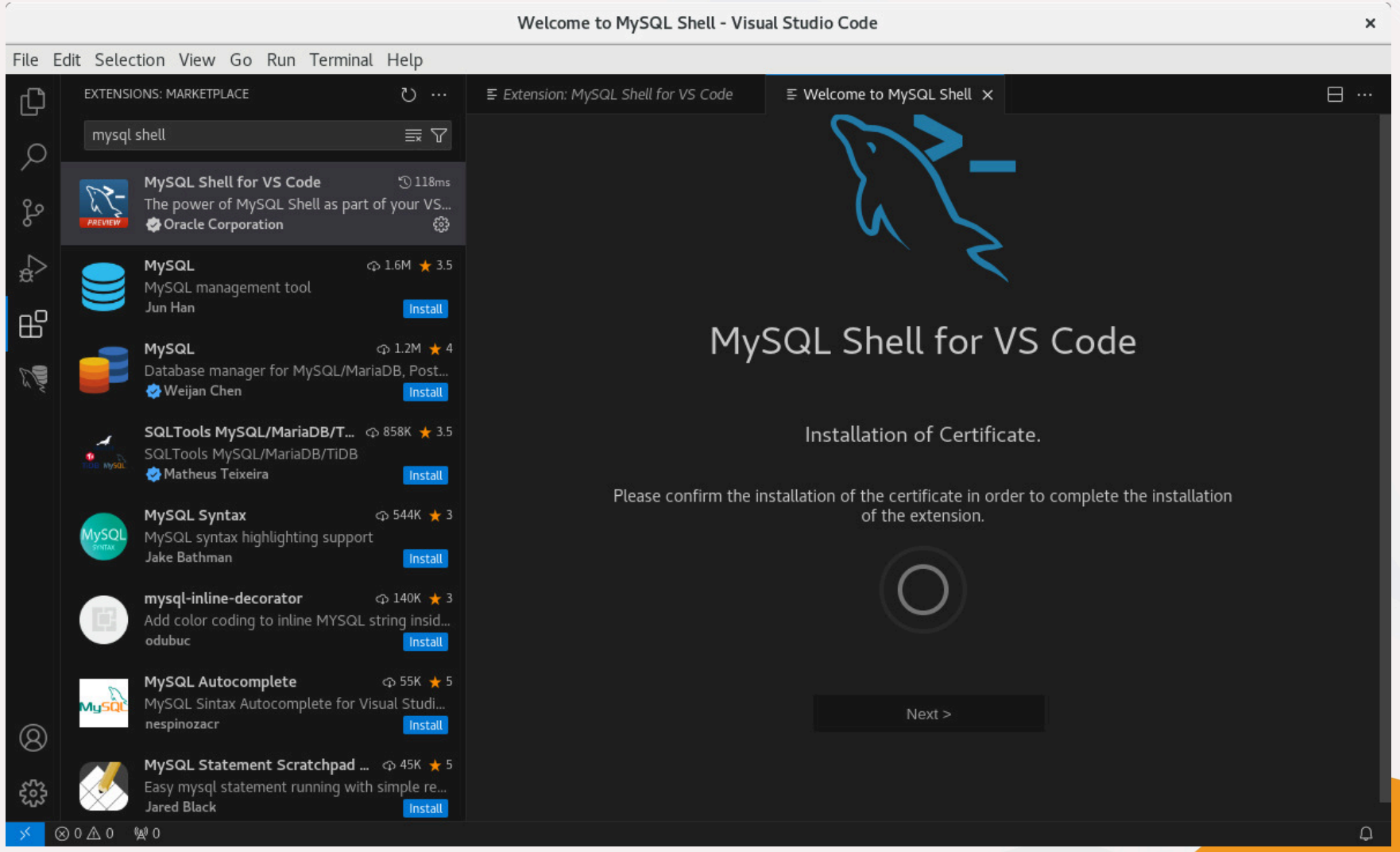
Copyright @ 2024 Oracle and/or its affiliates.

Installation



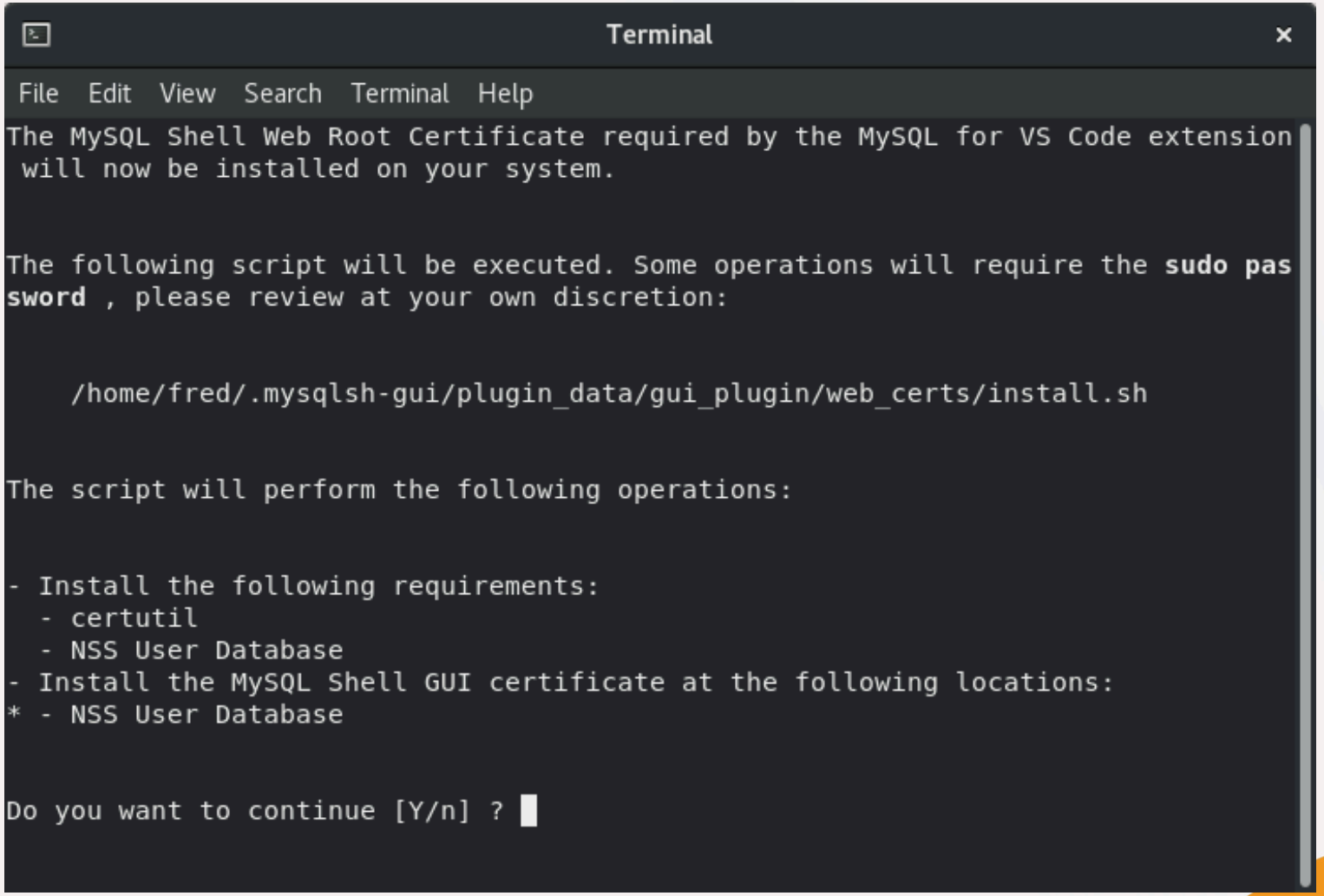
Copyright @ 2024 Oracle and/or its affiliates.

Installation



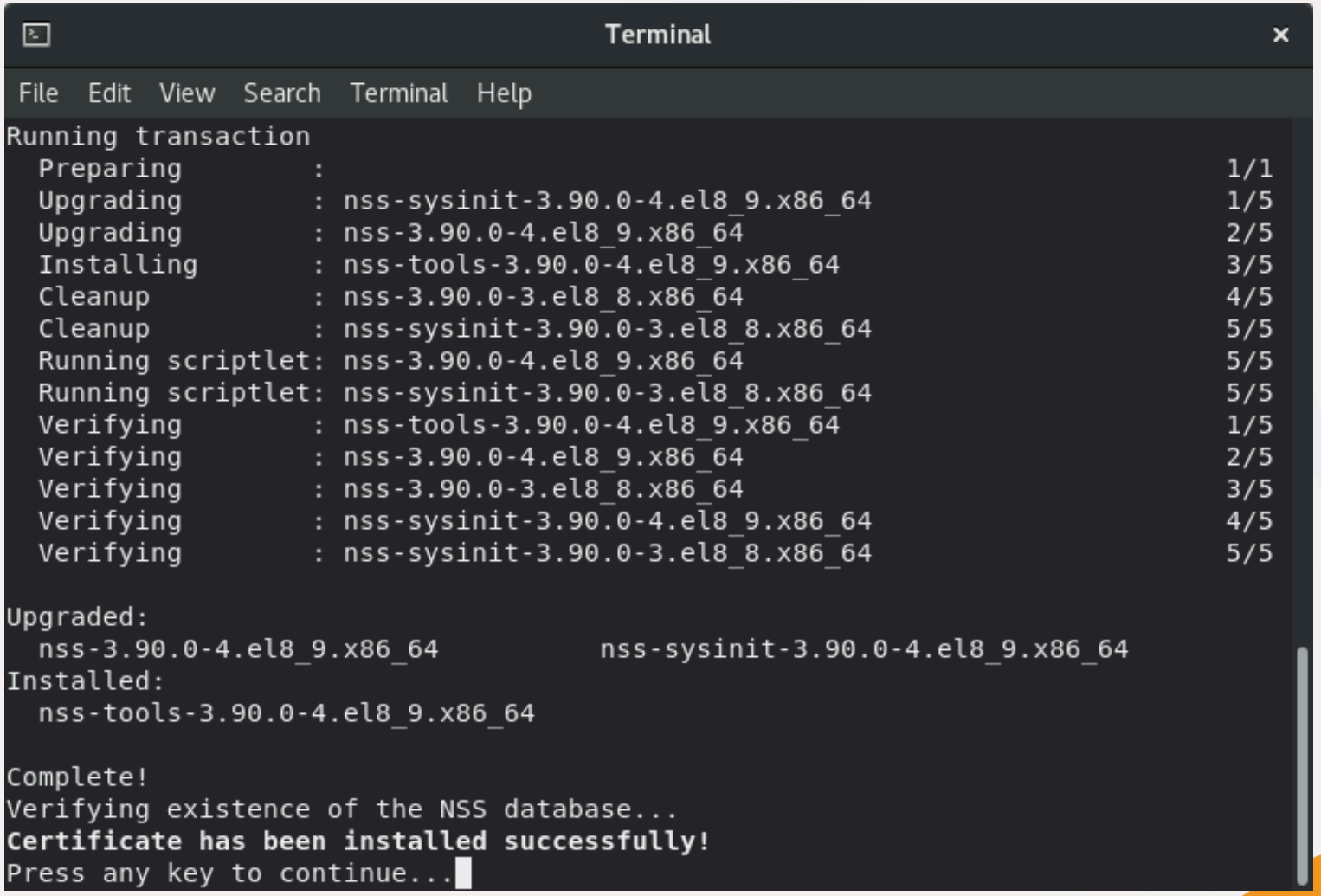
Copyright @ 2024 Oracle and/or its affiliates.

Installation



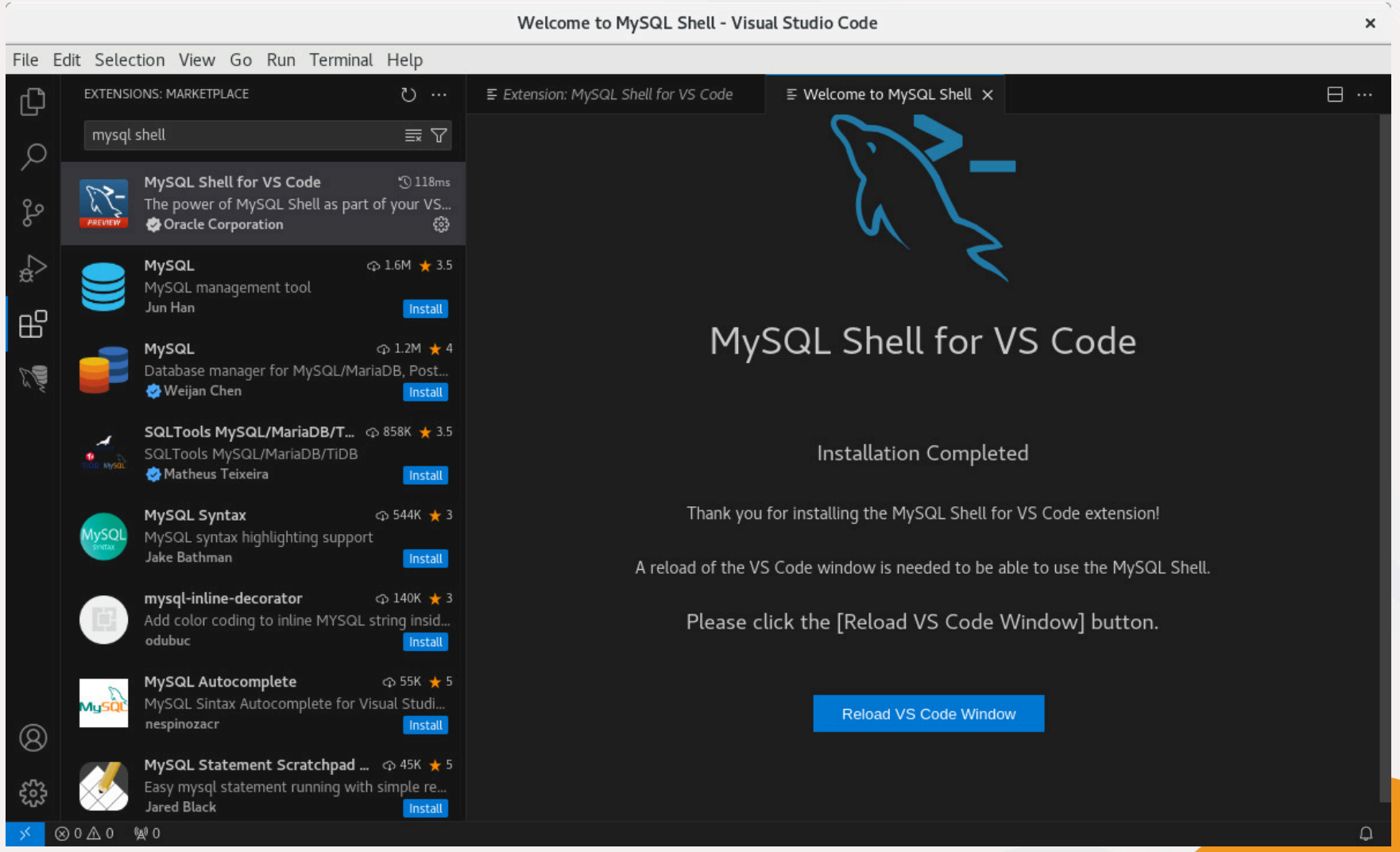
Copyright @ 2024 Oracle and/or its affiliates.

Installation



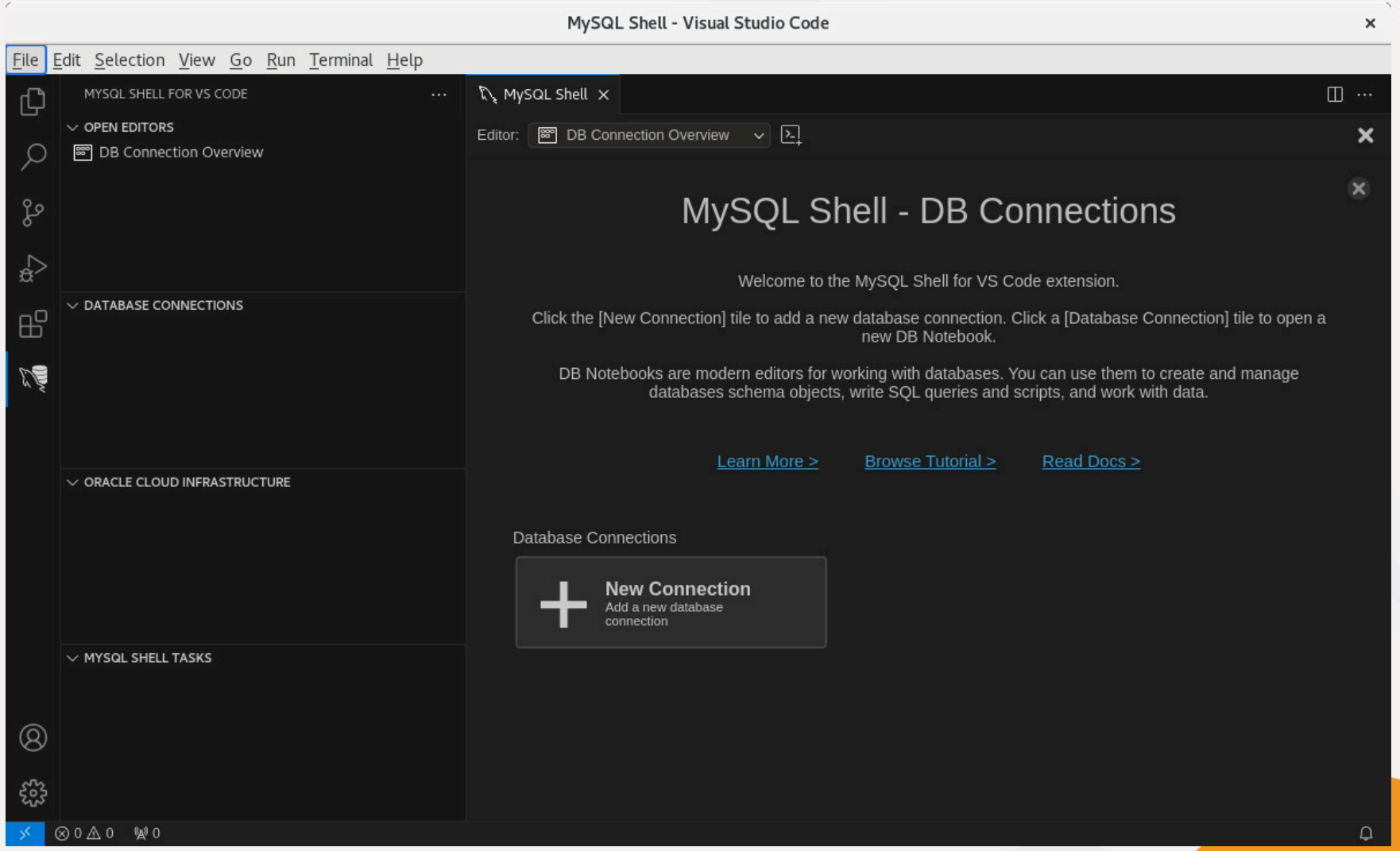
Copyright @ 2024 Oracle and/or its affiliates.

Installation



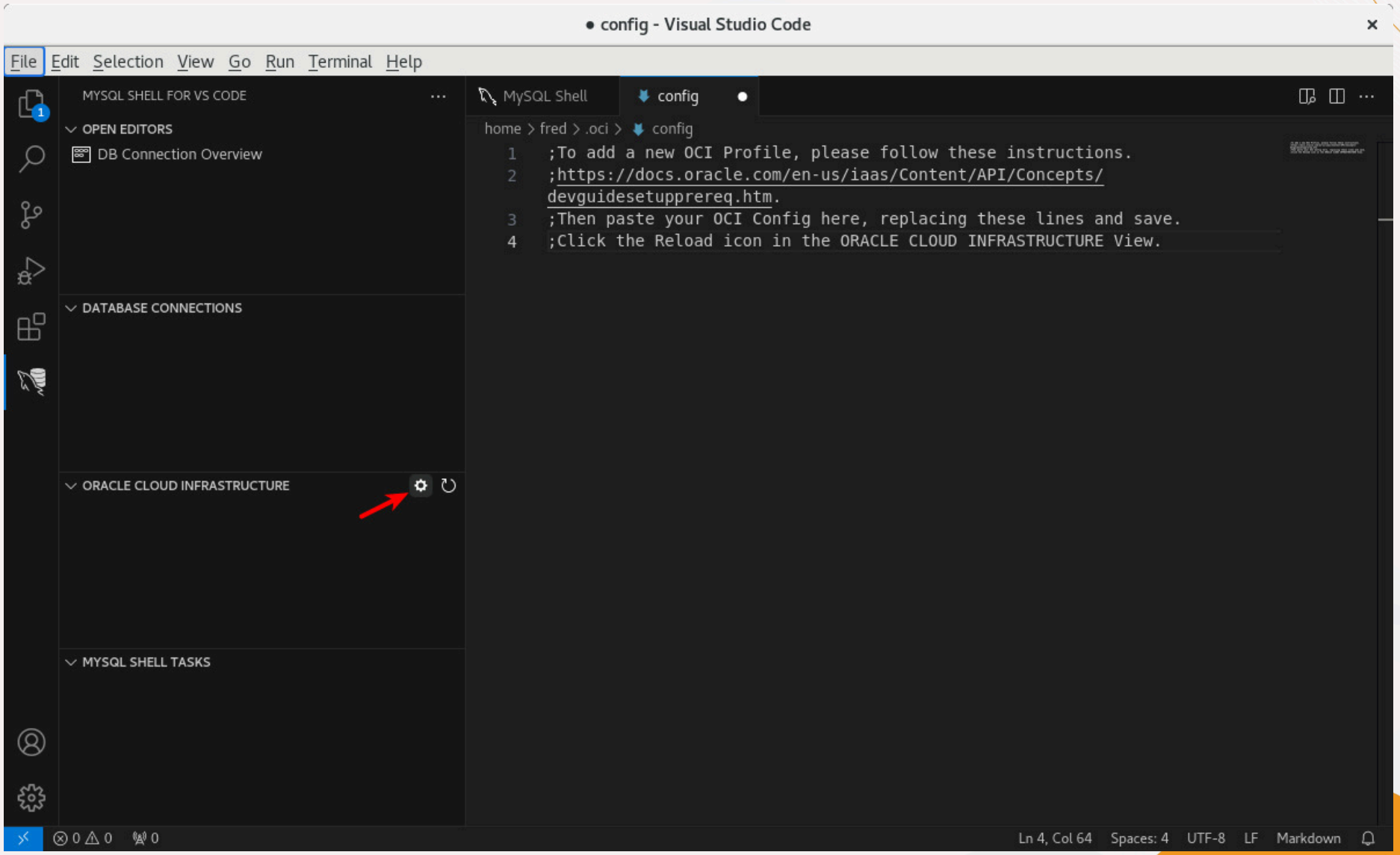
Copyright @ 2024 Oracle and/or its affiliates.

Installation



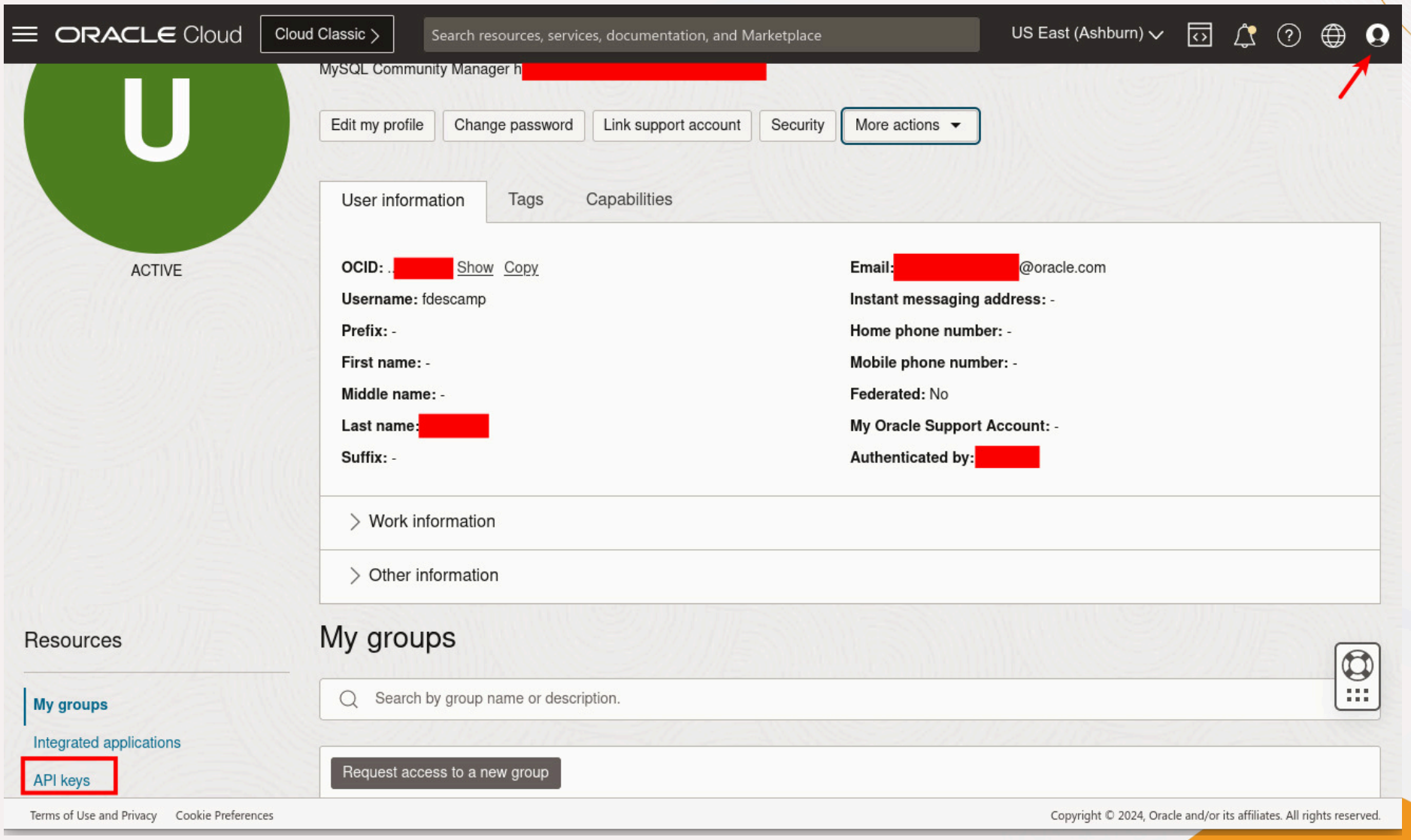
Copyright @ 2024 Oracle and/or its affiliates.

OCI Setup



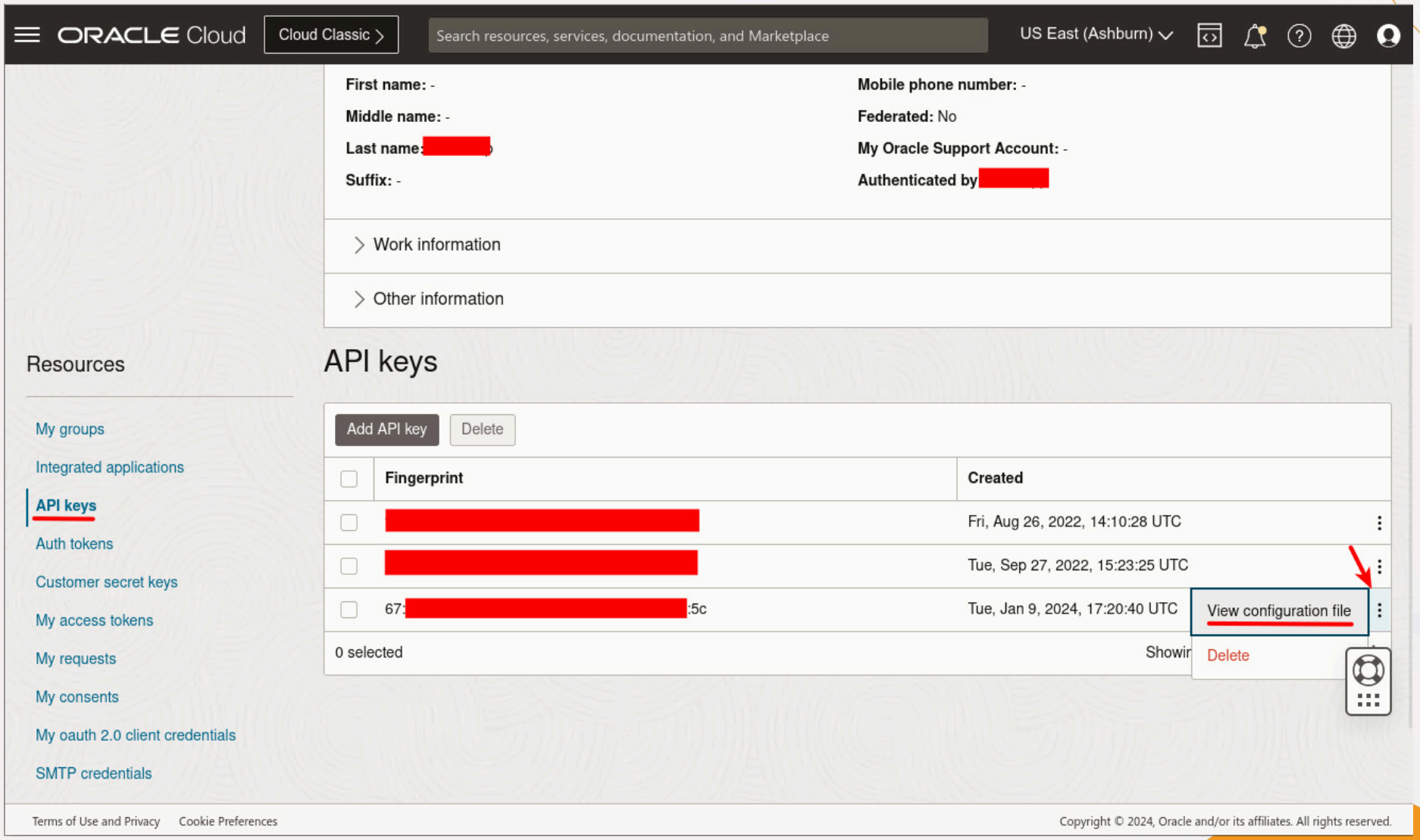
Copyright @ 2024 Oracle and/or its affiliates.

OCI Setup



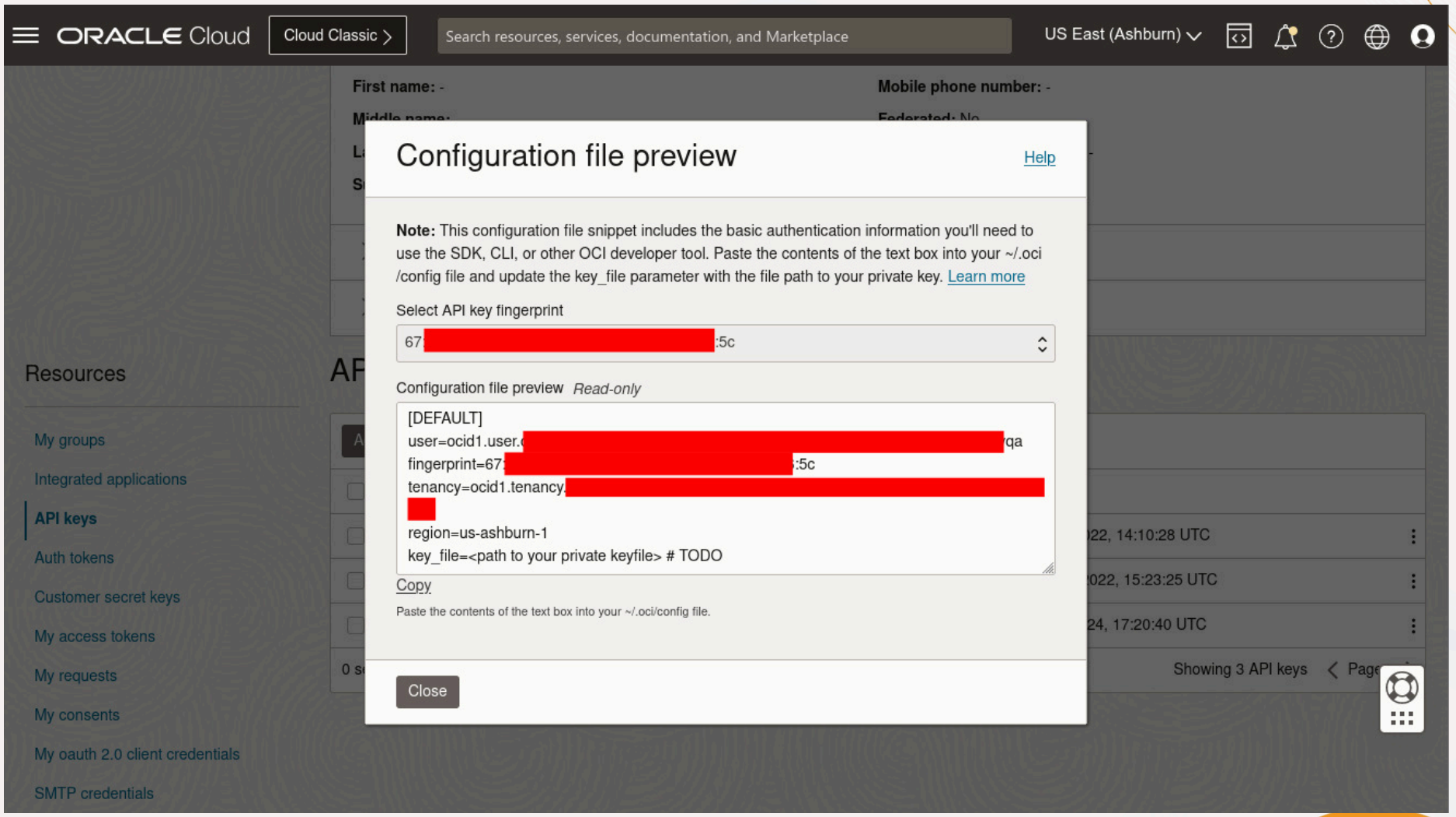
Copyright @ 2024 Oracle and/or its affiliates.

OCI Setup



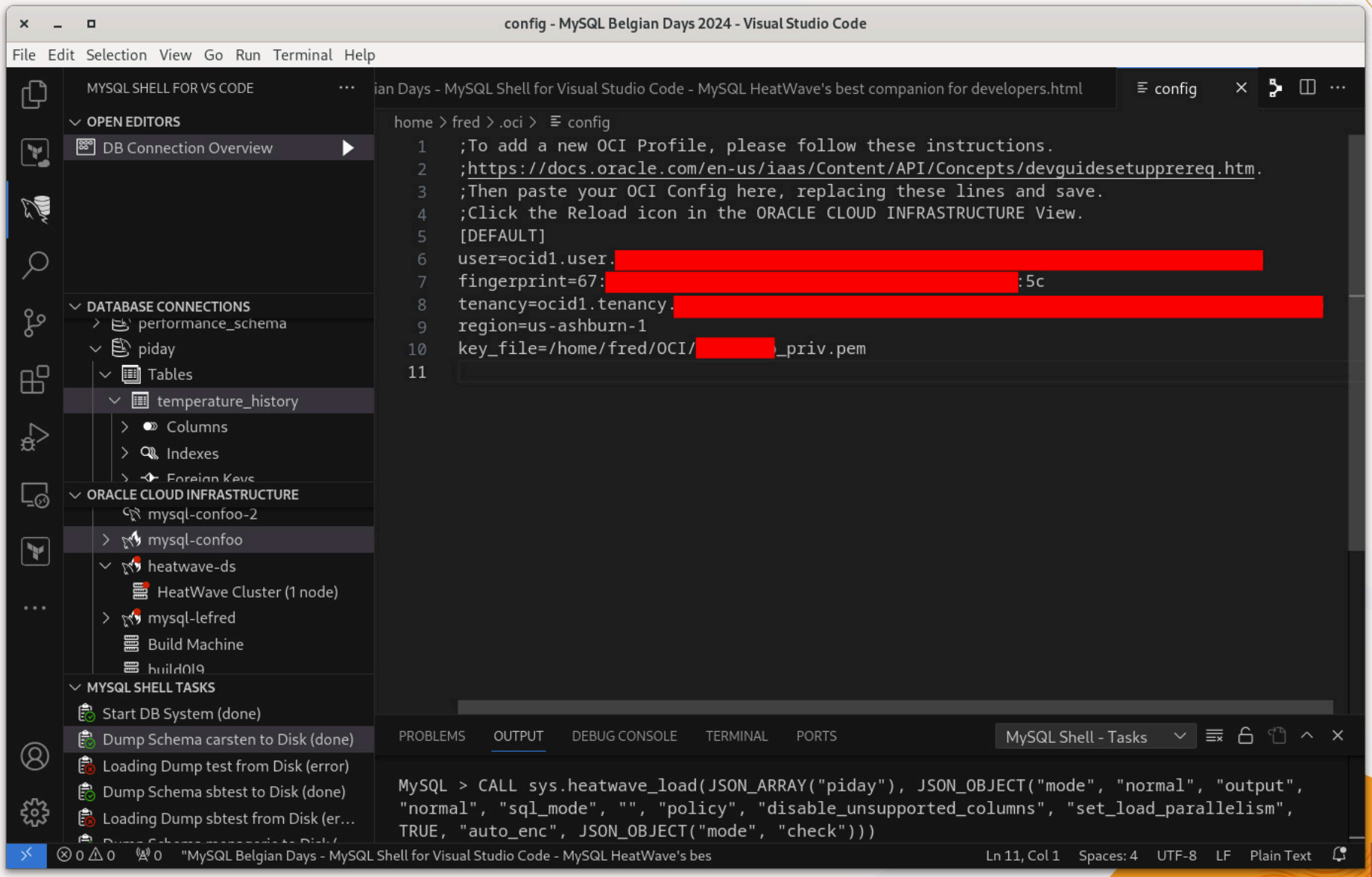
Copyright @ 2024 Oracle and/or its affiliates.

OCI Setup



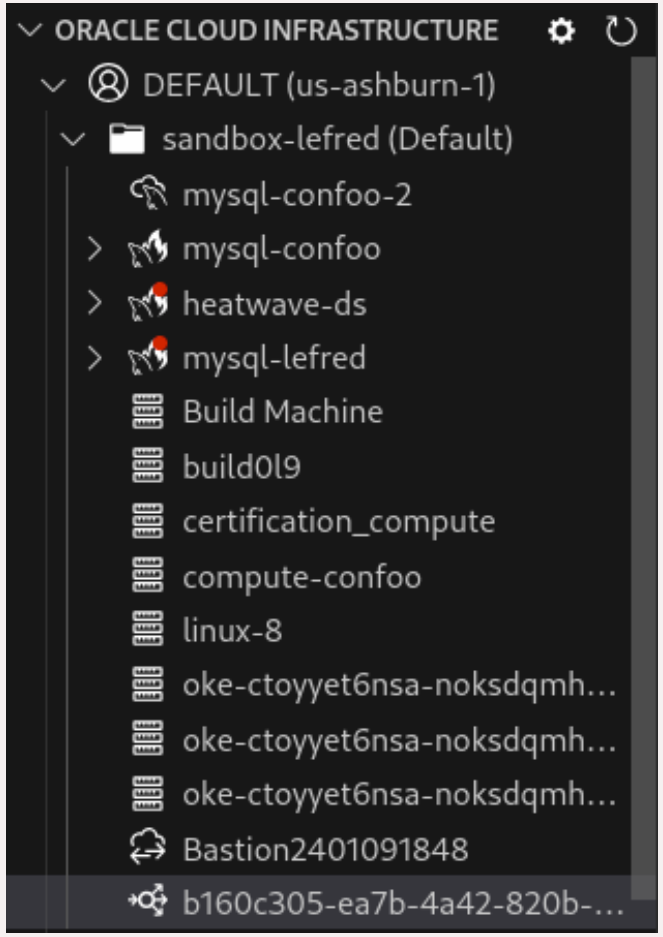
Copyright @ 2024 Oracle and/or its affiliates.

OCI Setup



Copyright @ 2024 Oracle and/or its affiliates.

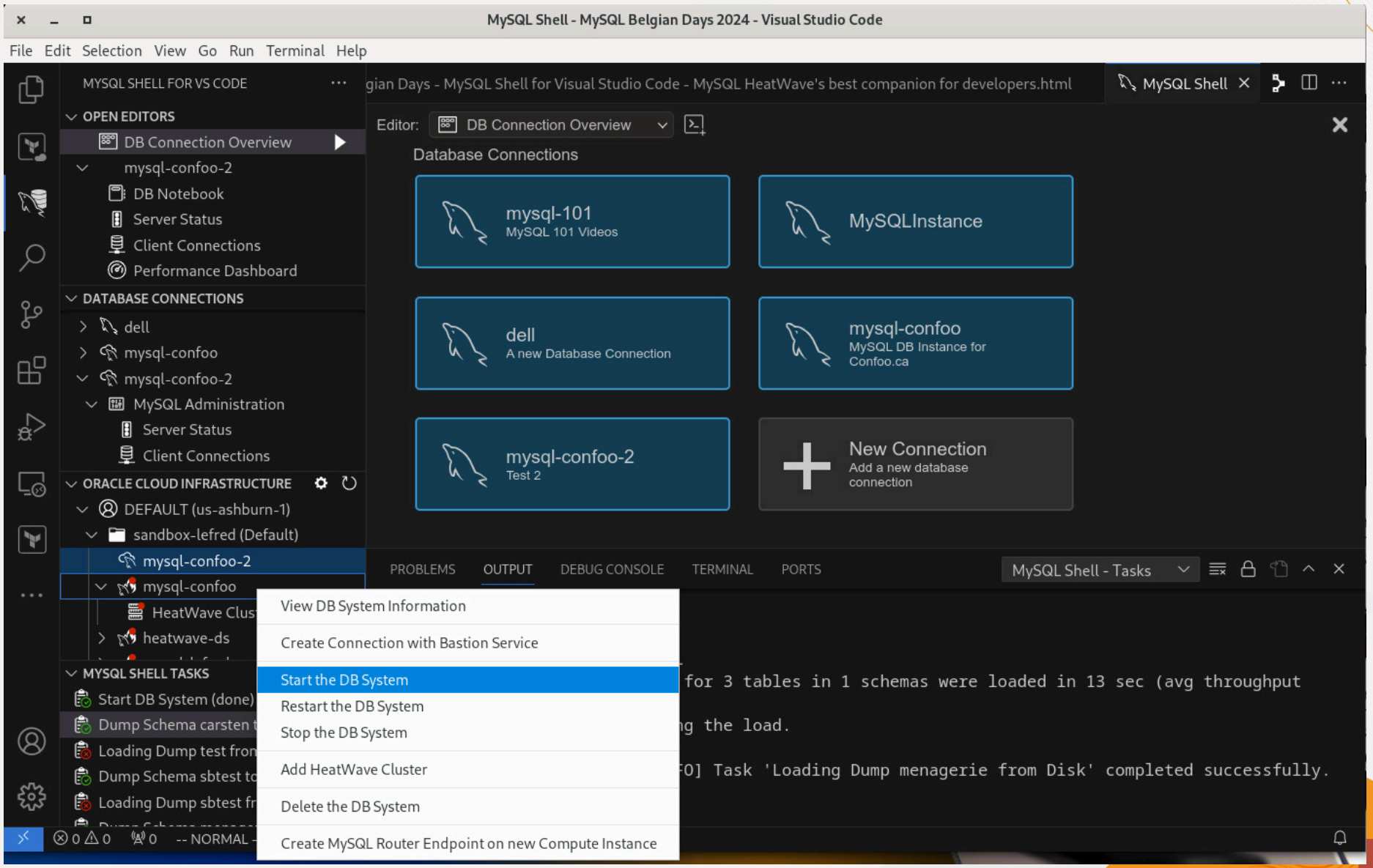
List of instances



- *MySQL DB System*
- *MySQL DB System with HeatWave Cluster*
- *Compute Instance / HeatWave Cluster Node*
- *Bastion Host*
- *OCI Load Balancer*
- *MySQL Router*

Copyright @ 2024 Oracle and/or its affiliates.

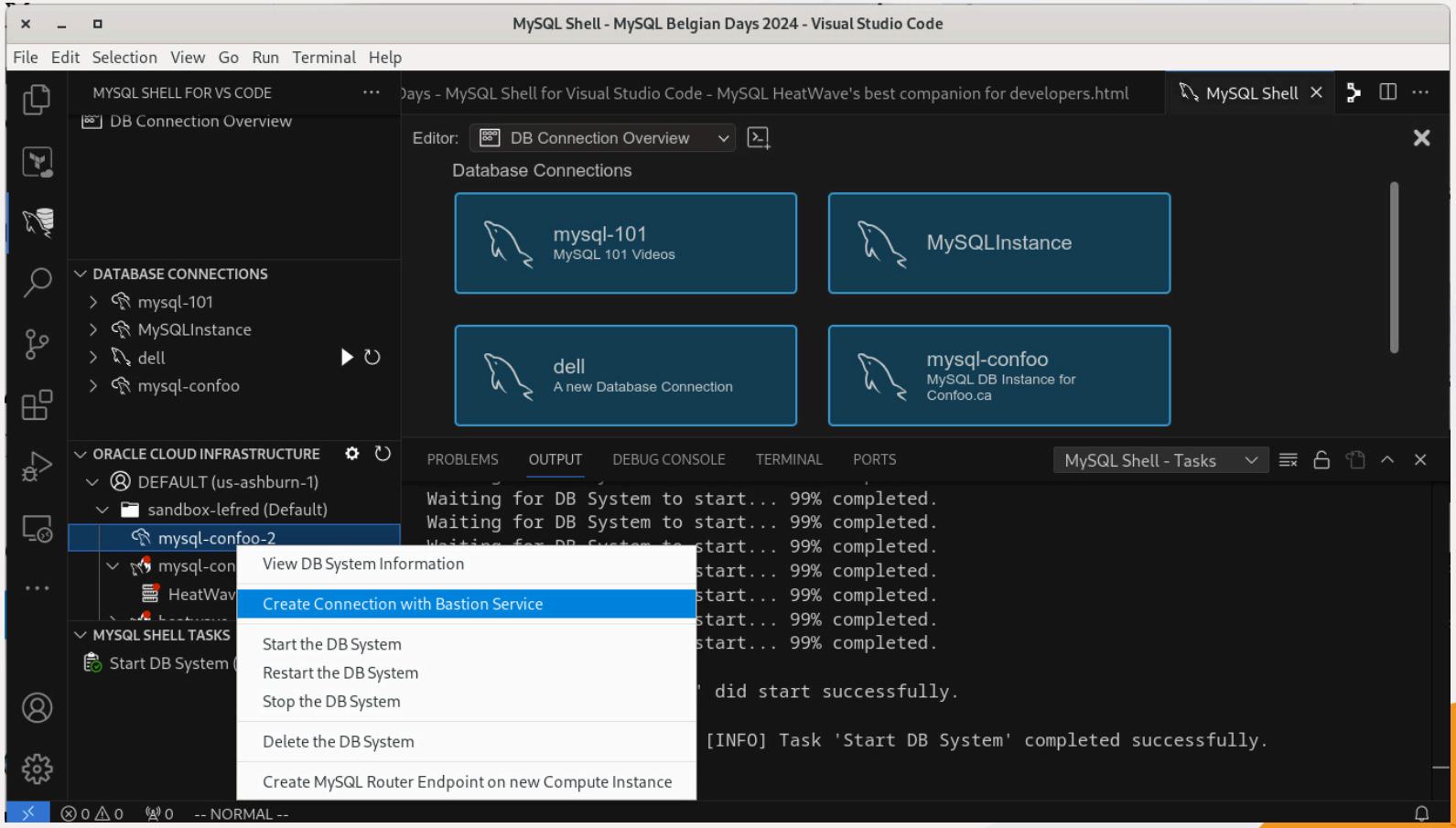
MySQL HeatWave Instance Operations



Copyright @ 2024 Oracle and/or its affiliates.

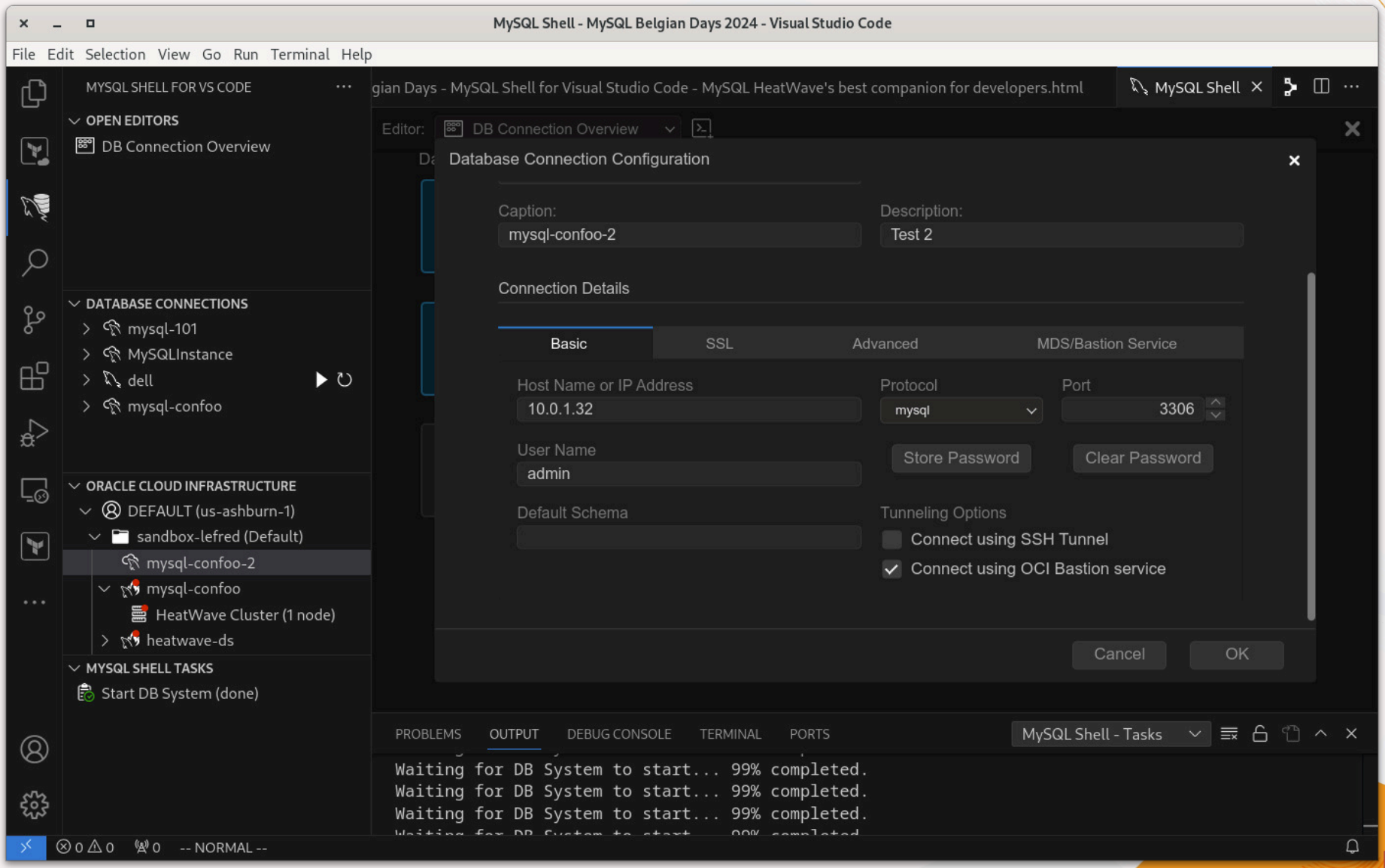
Connection

*As Developer, the easiest way to connect to your MySQL DB System if you don't have any VPN to your OCI tenancy, it to use the **Bastion Service**:*



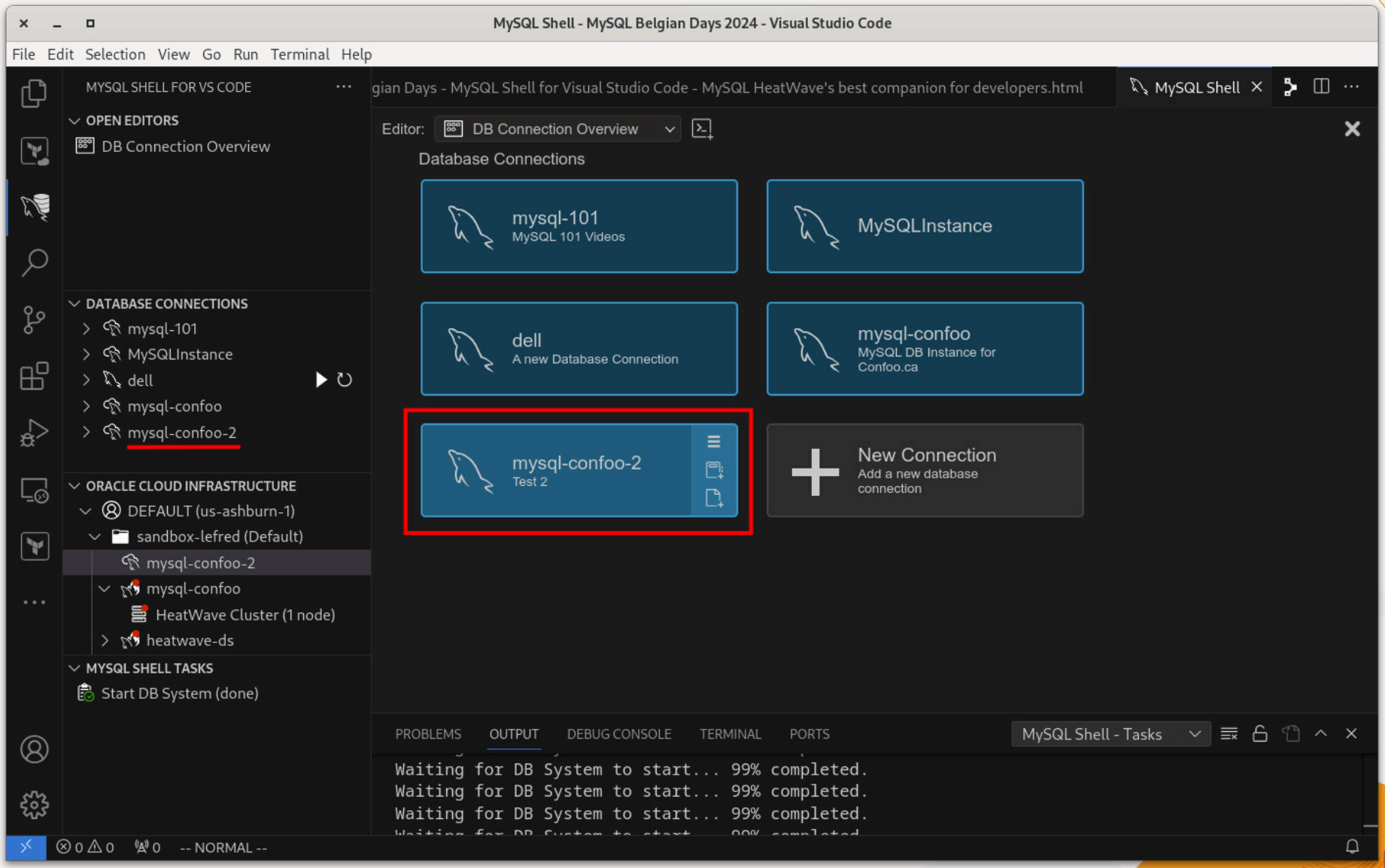
Copyright @ 2024 Oracle and/or its affiliates.

Connection - Bastion Service



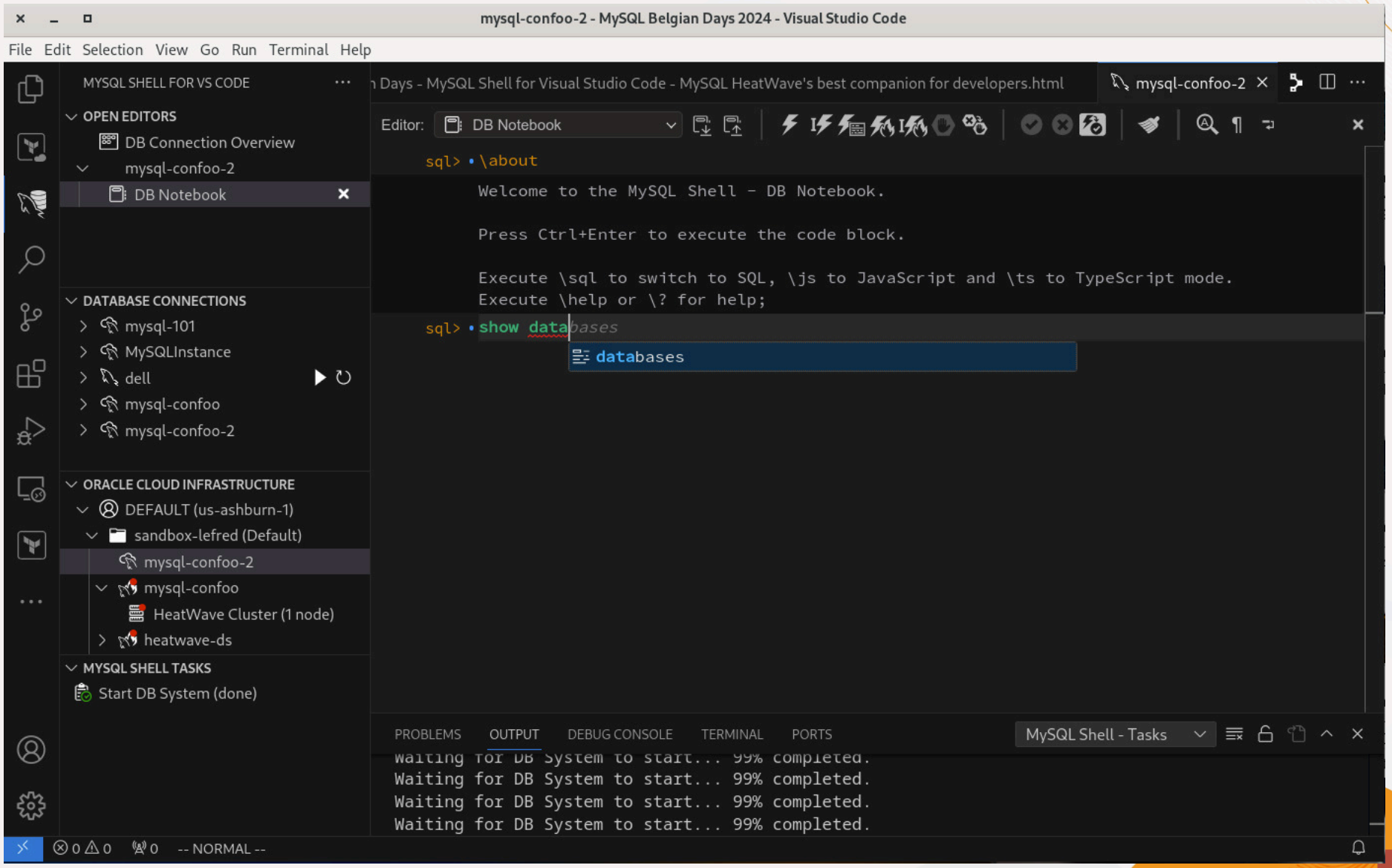
Copyright @ 2024 Oracle and/or its affiliates.

Connection - Bastion Service



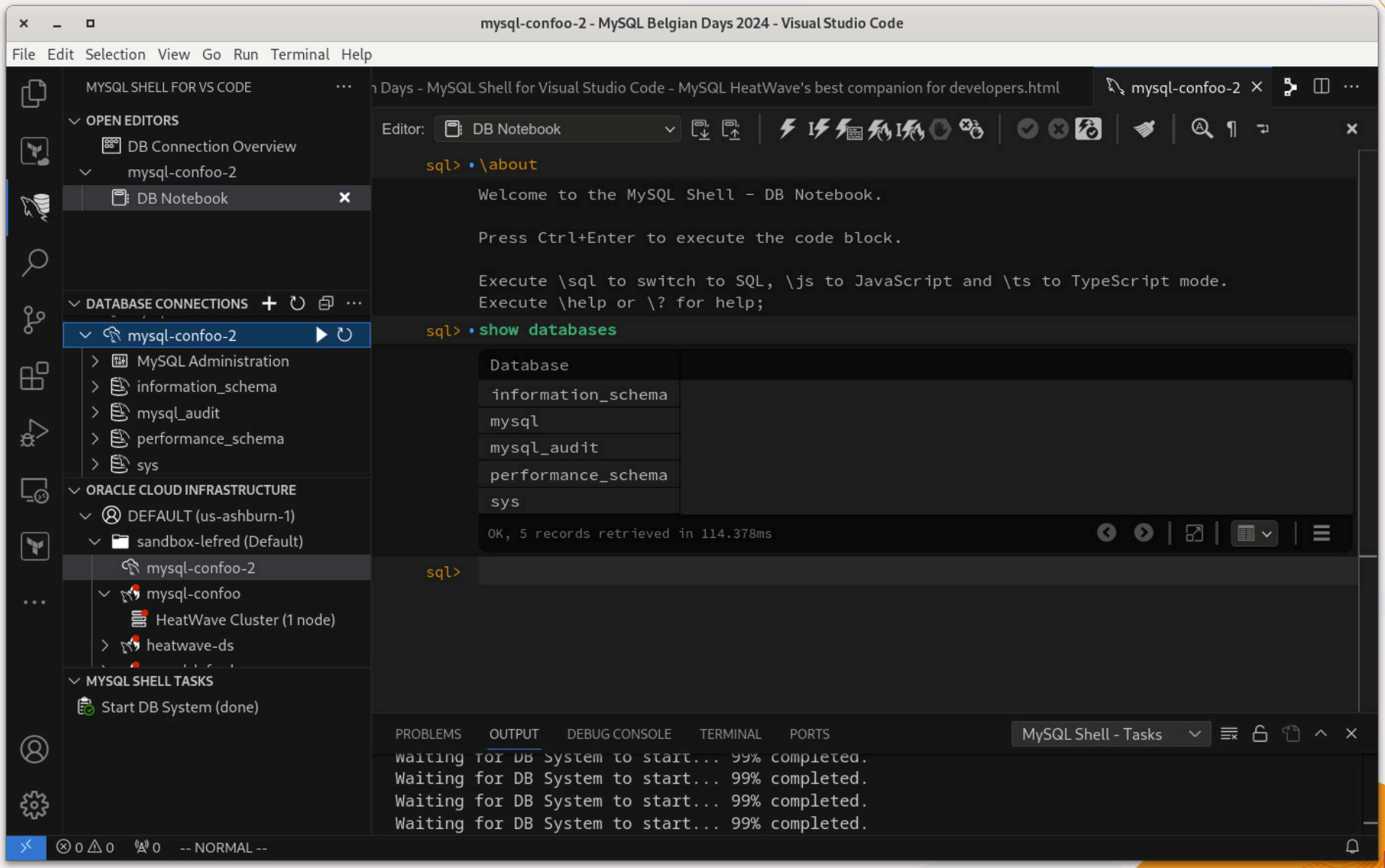
Copyright @ 2024 Oracle and/or its affiliates.

Connection - Bastion Service



Copyright @ 2024 Oracle and/or its affiliates.

Connection - Bastion Service



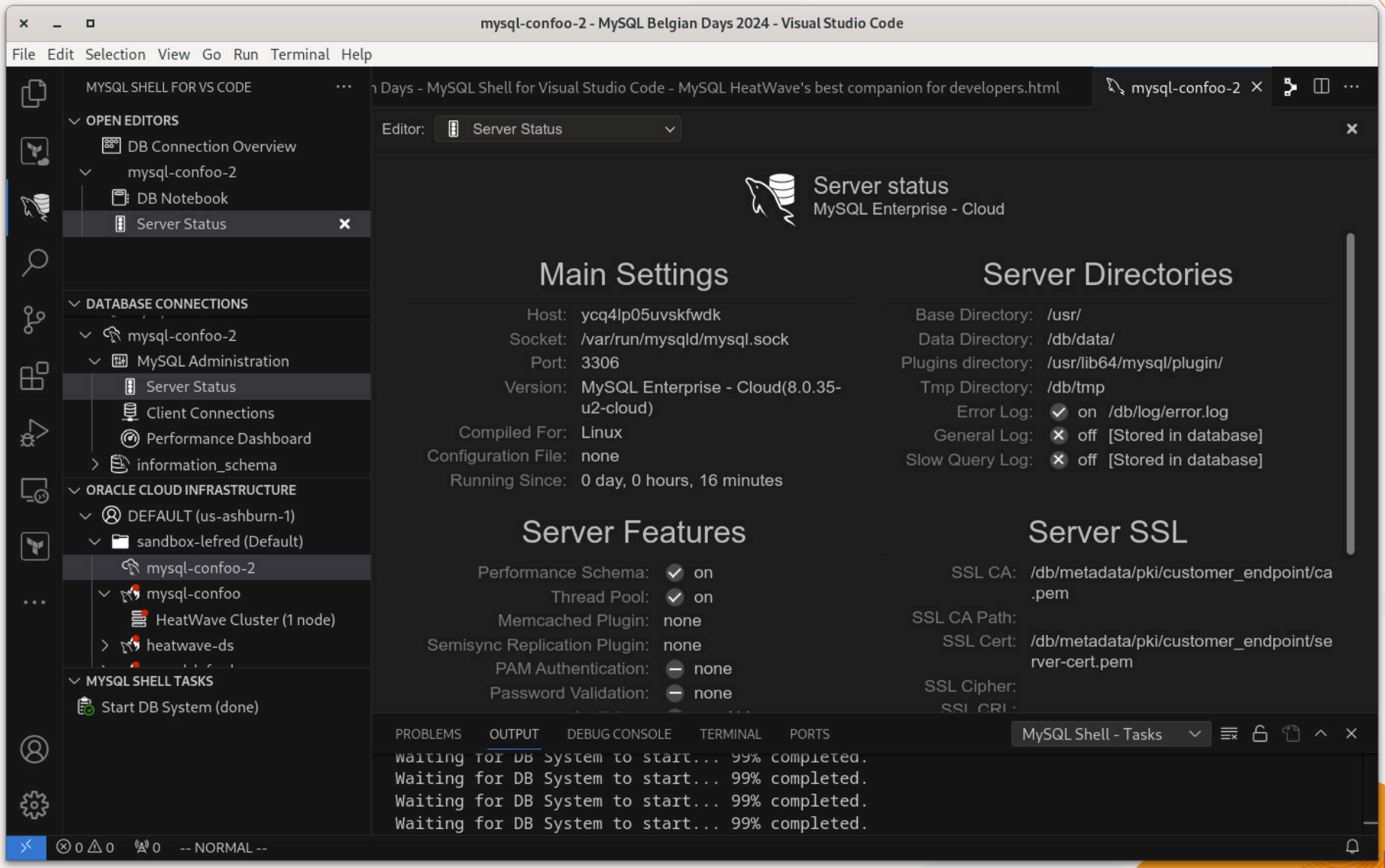
Copyright @ 2024 Oracle and/or its affiliates.

MySQL Shell for Visual Studio Code

MySQL Administration

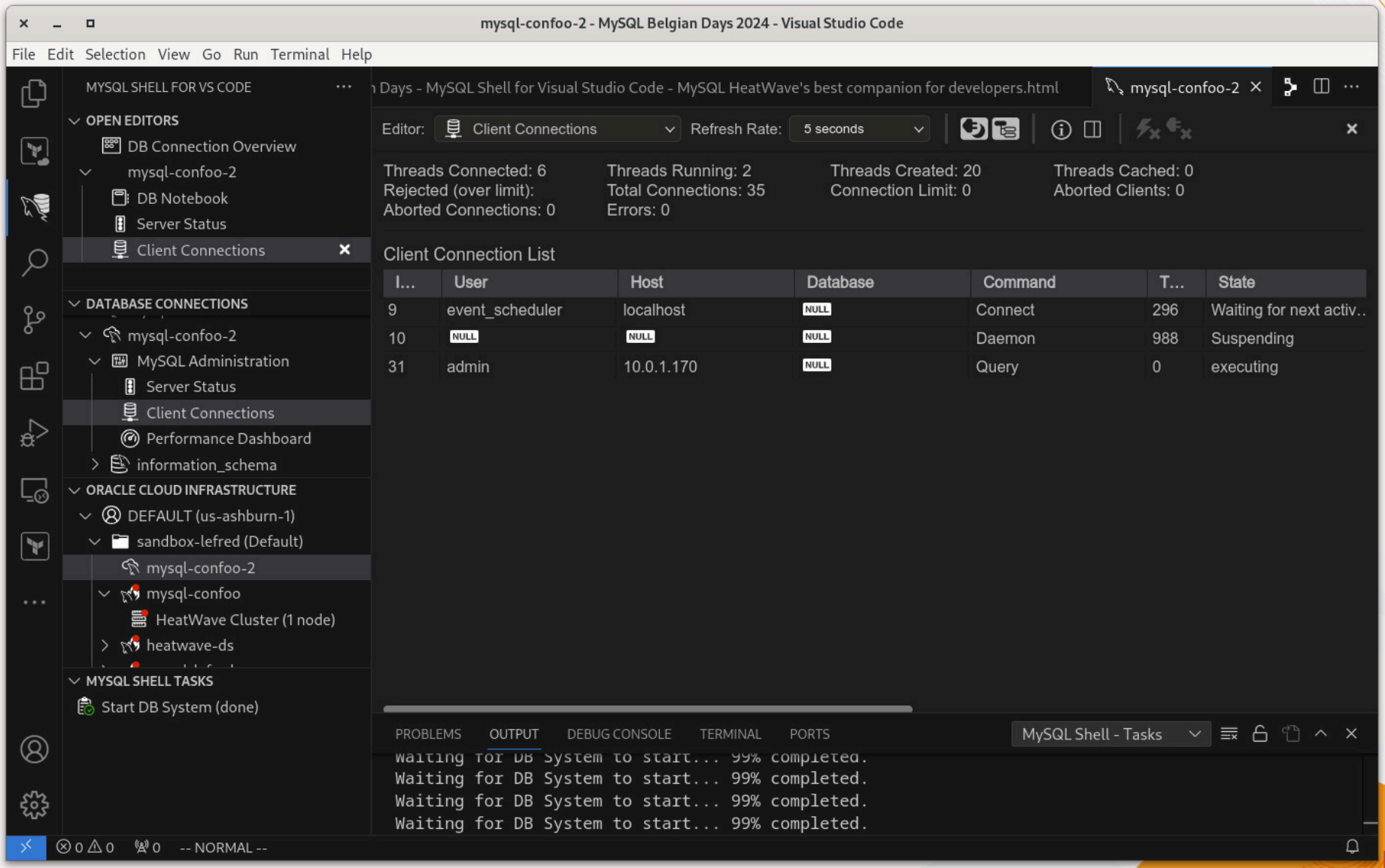
Copyright @ 2024 Oracle and/or its affiliates.

Administration - Server Status



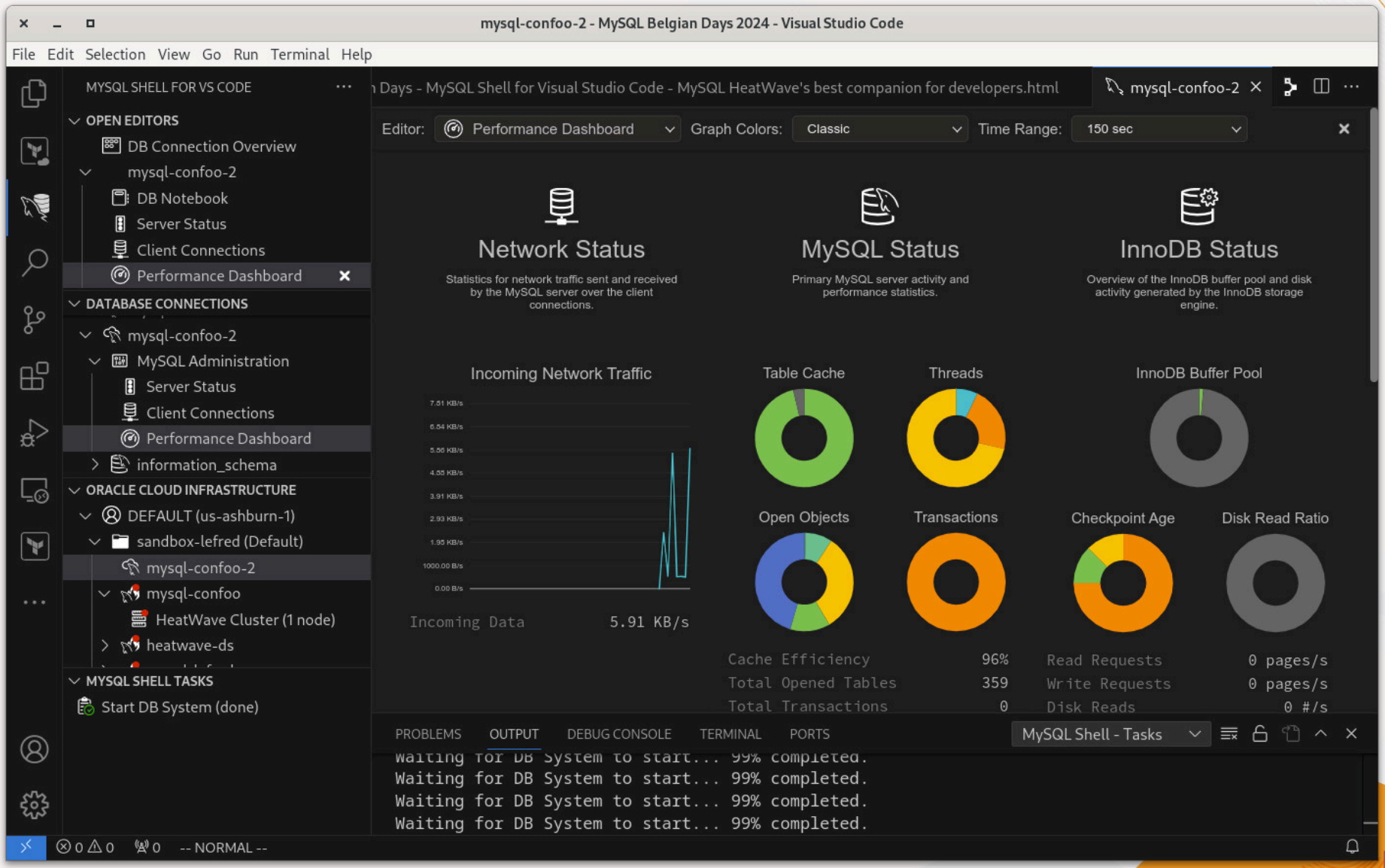
Copyright @ 2024 Oracle and/or its affiliates.

Administration - Client Connections



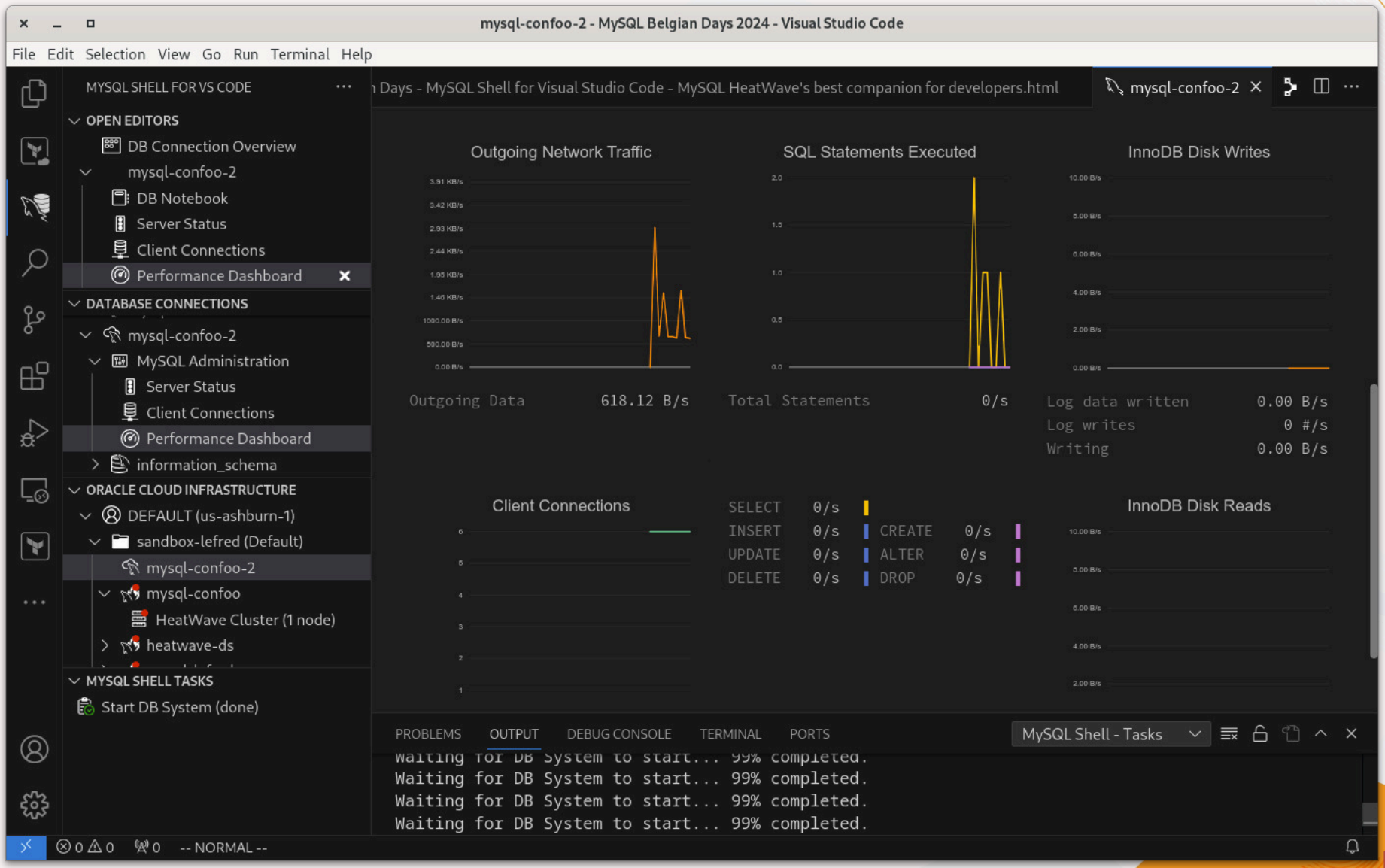
Copyright @ 2024 Oracle and/or its affiliates.

Administration - Performance Dashboard



Copyright @ 2024 Oracle and/or its affiliates.

Administration - Performance Dashboard



Copyright @ 2024 Oracle and/or its affiliates.

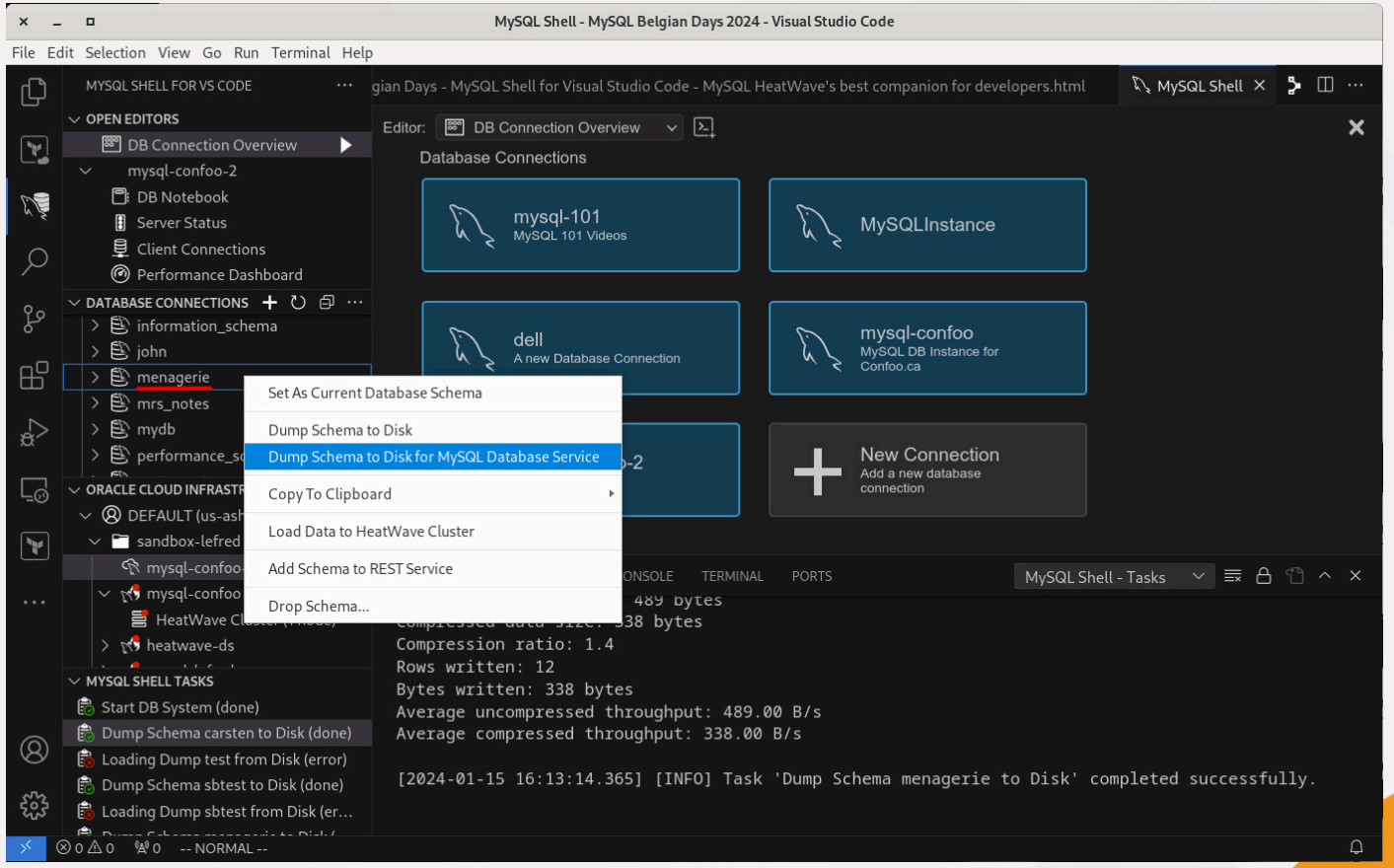
MySQL Shell for Visual Studio Code

Dump & Load Data

Copyright @ 2024 Oracle and/or its affiliates.

Dump a Schema locally to be imported in OCI

It's possible to dump a schema from an instance locally to be imported to a MySQL HeatWave DB System in OCI:



Copyright @ 2024 Oracle and/or its affiliates.

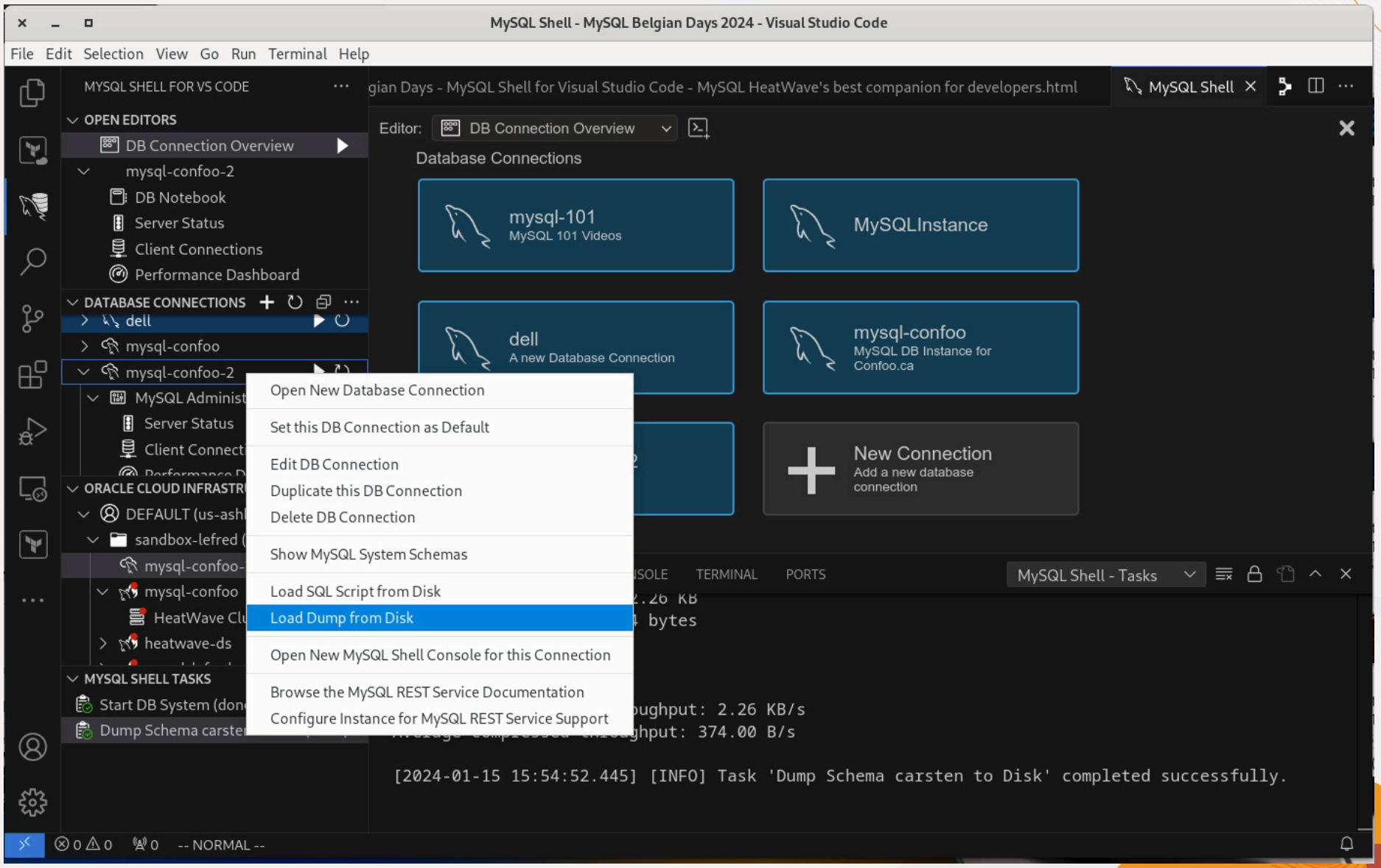
Dump a Schema locally to be imported in OCI

It creates a MySQL Shell parallel dump using the following options:

```
"options": {
        "compatibility": [
            "create_invisible_pks",
            "force_innodb",
            "skip_invalid_accounts",
            "strip_definers",
            "strip_restricted_grants",
            "strip_tablespaces"
        ],
        "ocimds": true
    }
```

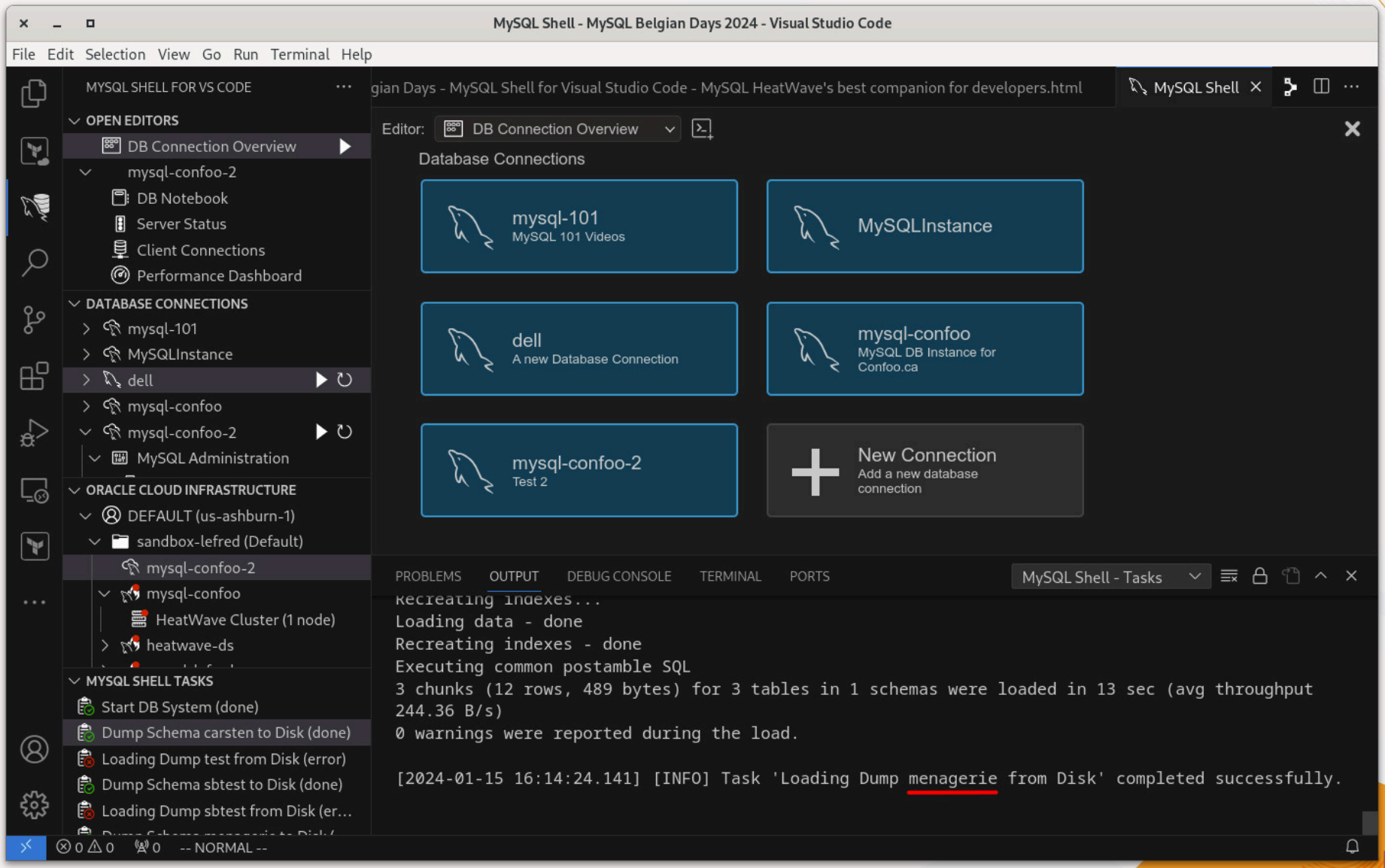

Copyright @ 2024 Oracle and/or its affiliates.

Load the Dump to a DB System



Copyright @ 2024 Oracle and/or its affiliates.

Load the Dump to a DB System



Copyright @ 2024 Oracle and/or its affiliates.

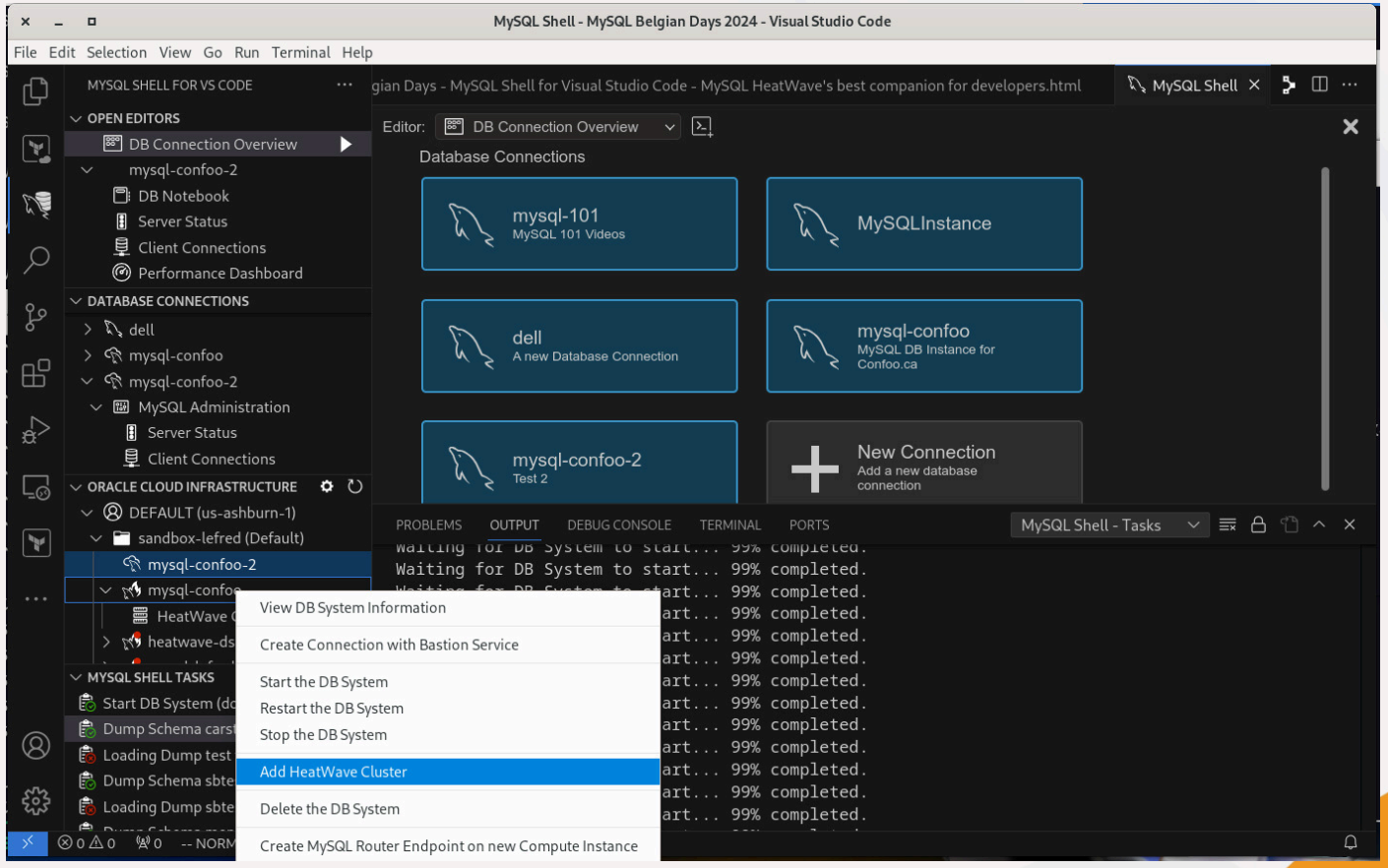
MySQL Shell for Visual Studio Code

MySQL HeatWave Cluster

Copyright @ 2024 Oracle and/or its affiliates.

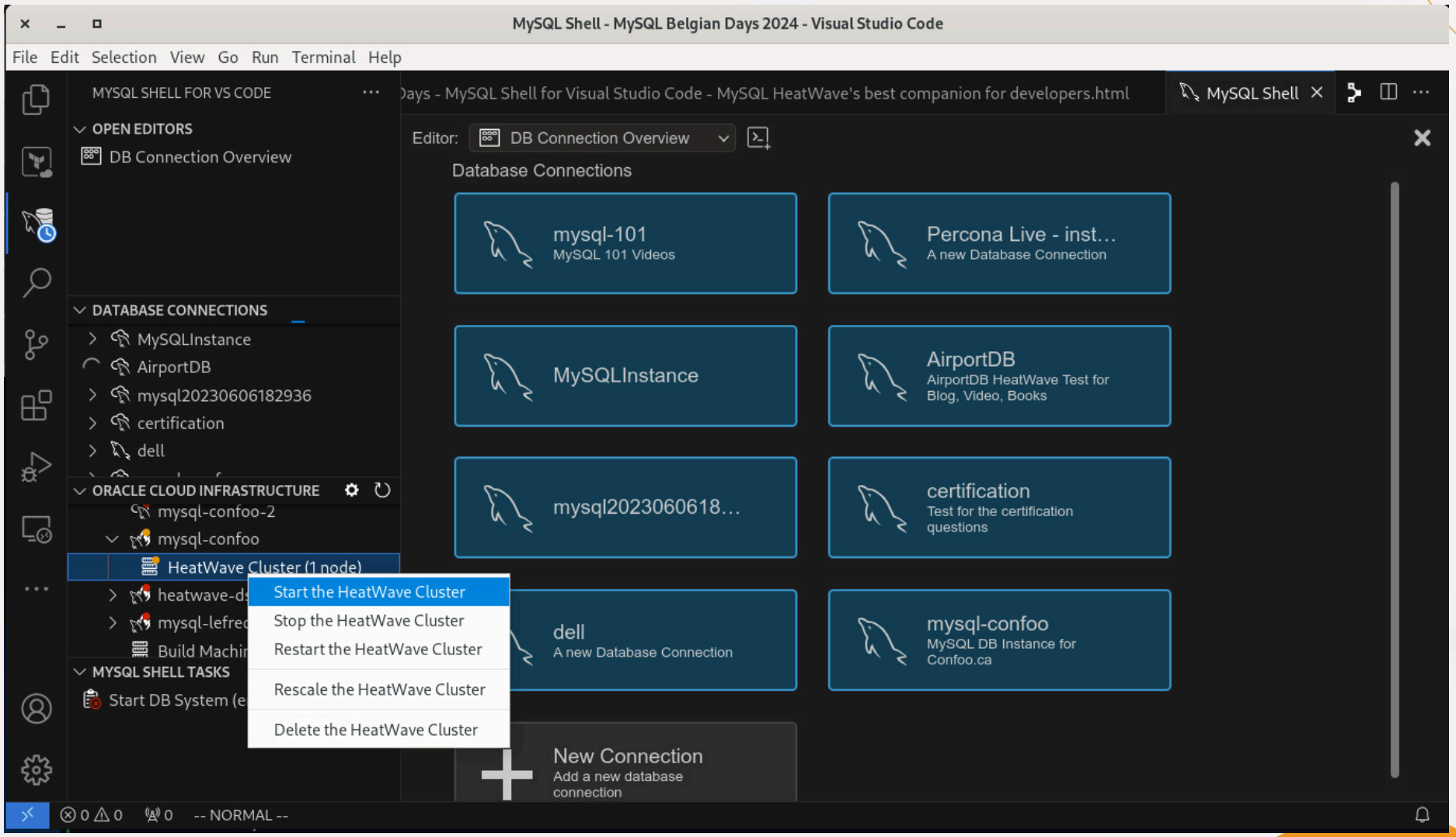
MySQL HeatWave Cluster

If the instance's shape supports MySQL HeatWave Cluster, the cluster can be added from the MySQL Shell for Visual Studio Code's interface:



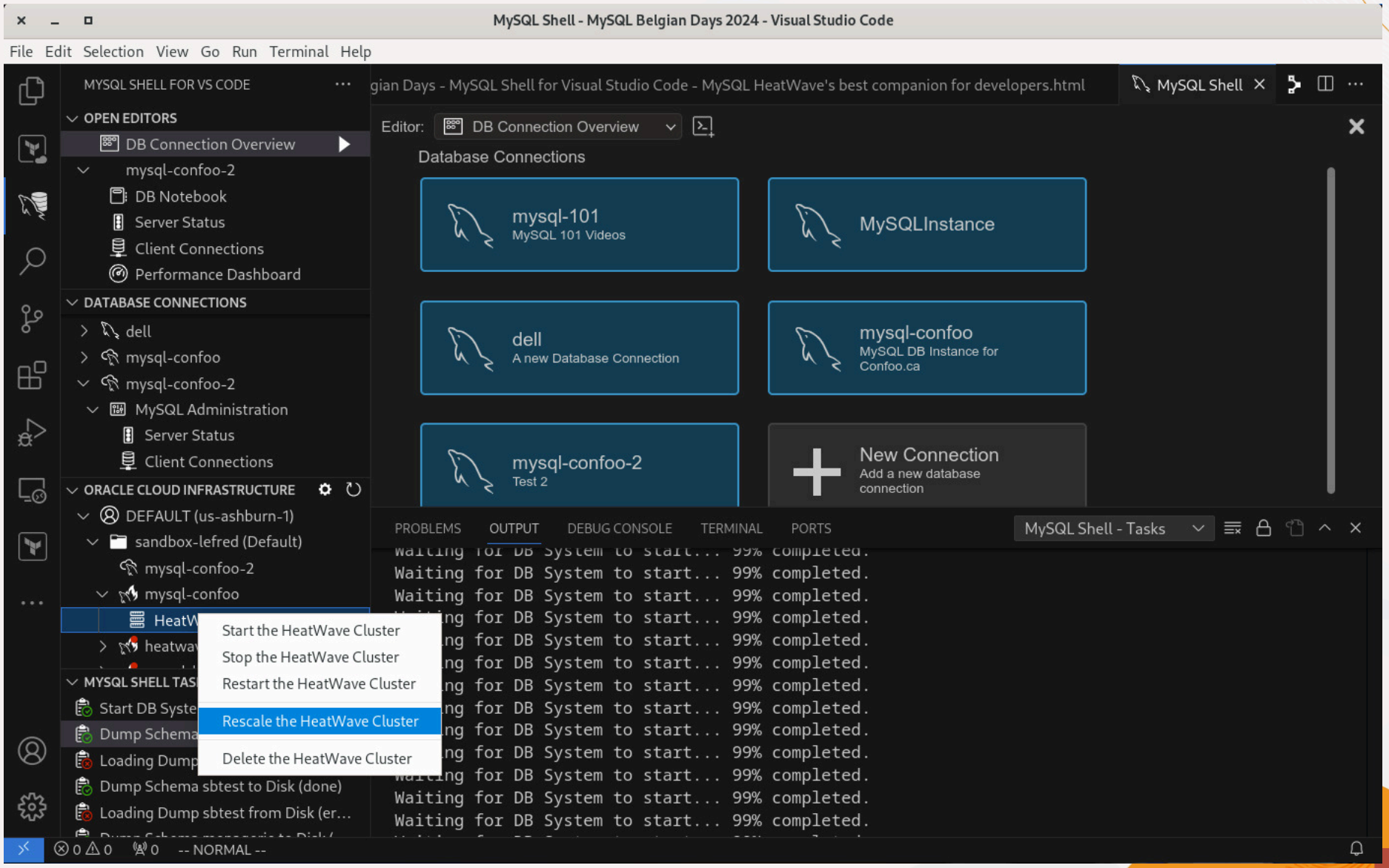
Copyright @ 2024 Oracle and/or its affiliates.

MySQL HeatWave Cluster - Operations



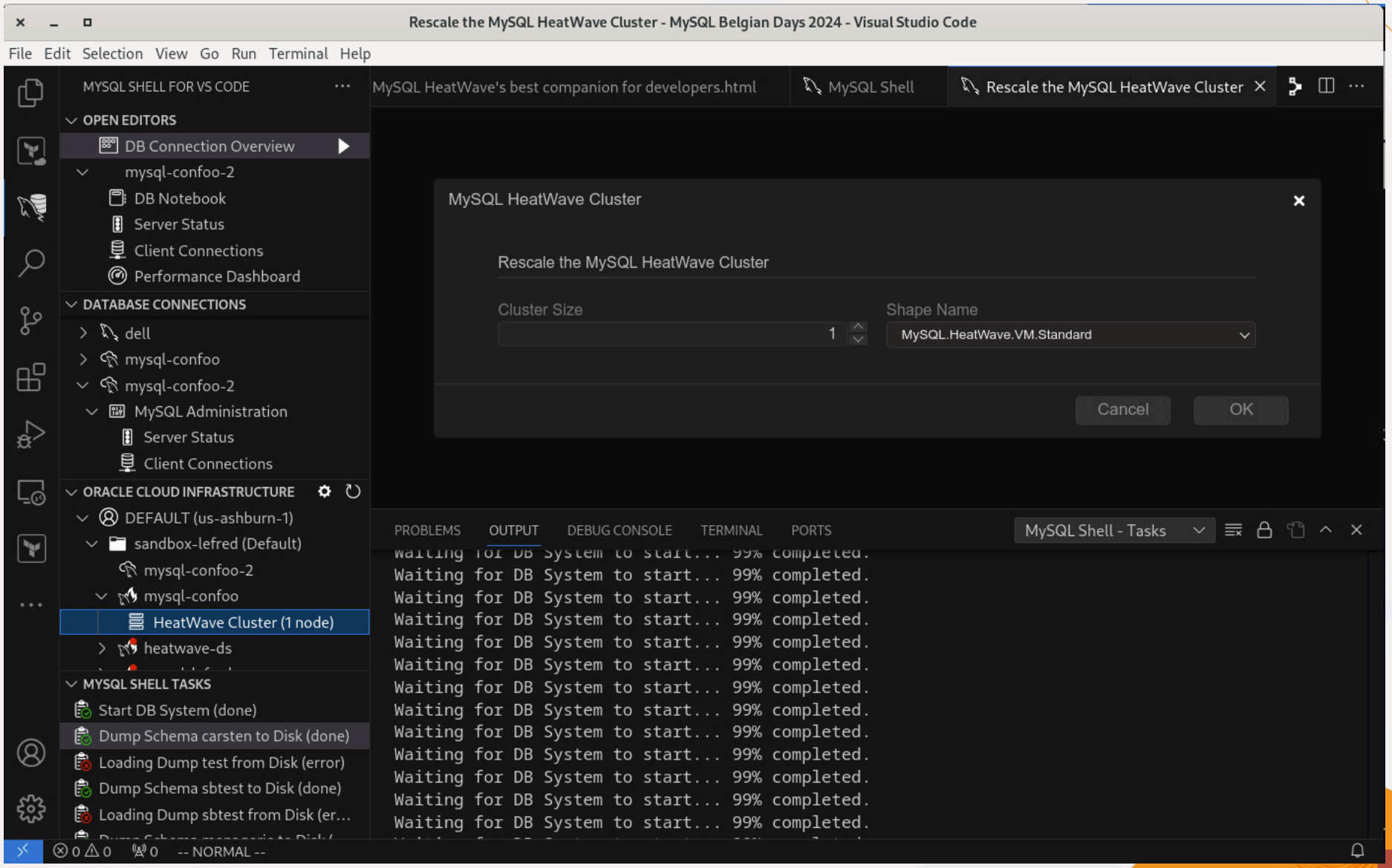
Copyright @ 2024 Oracle and/or its affiliates.

MySQL HeatWave Cluster - Rescale



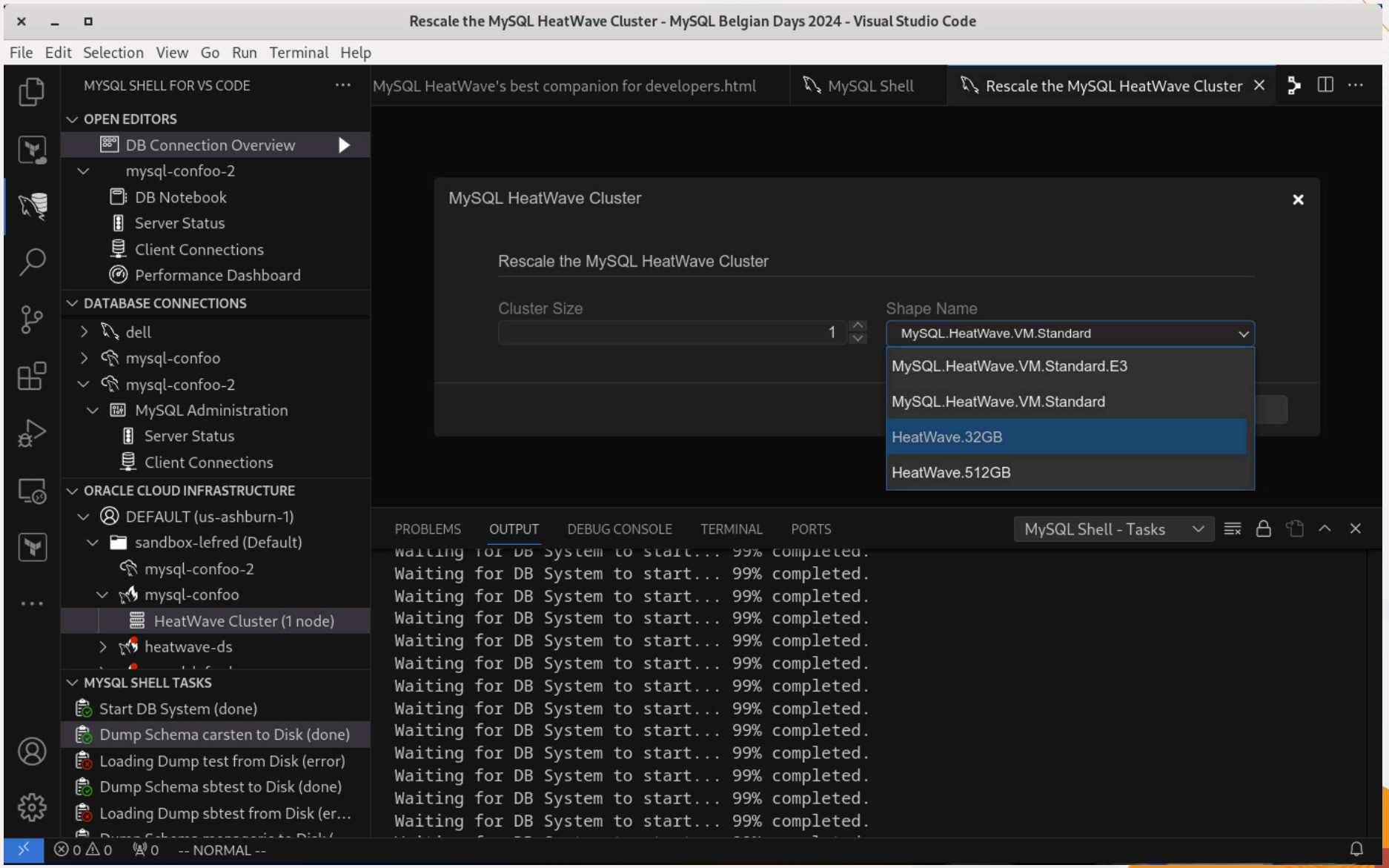
Copyright @ 2024 Oracle and/or its affiliates.

MySQL HeatWave Cluster - Rescale



Copyright @ 2024 Oracle and/or its affiliates.

MySQL HeatWave Cluster - Rescale



Copyright @ 2024 Oracle and/or its affiliates.

Loading Data to HeatWave Cluster

If you want to load data to HeatWave Cluster, the manual operation is the following to use the Auto Parallel Load command:

```
call sys.heatwave_load(JSON_ARRAY('menagerie'), NULL);
```


Copyright @ 2024 Oracle and/or its affiliates.

Loading Data to HeatWave Cluster

If you want to load data to HeatWave Cluster, the manual operation is the following to use the Auto Parallel Load command:

```
call sys.heatwave_load(JSON_ARRAY('menagerie'), NULL);
```

and I forgot about the options :-(

Copyright @ 2024 Oracle and/or its affiliates.

Loading Data to HeatWave Cluster

If you want to load data to HeatWave Cluster, the manual operation is the following to use the Auto Parallel Load command:

```
call sys.heatwave_load(JSON_ARRAY('menagerie'), NULL);
```

and I forgot about the options :-(

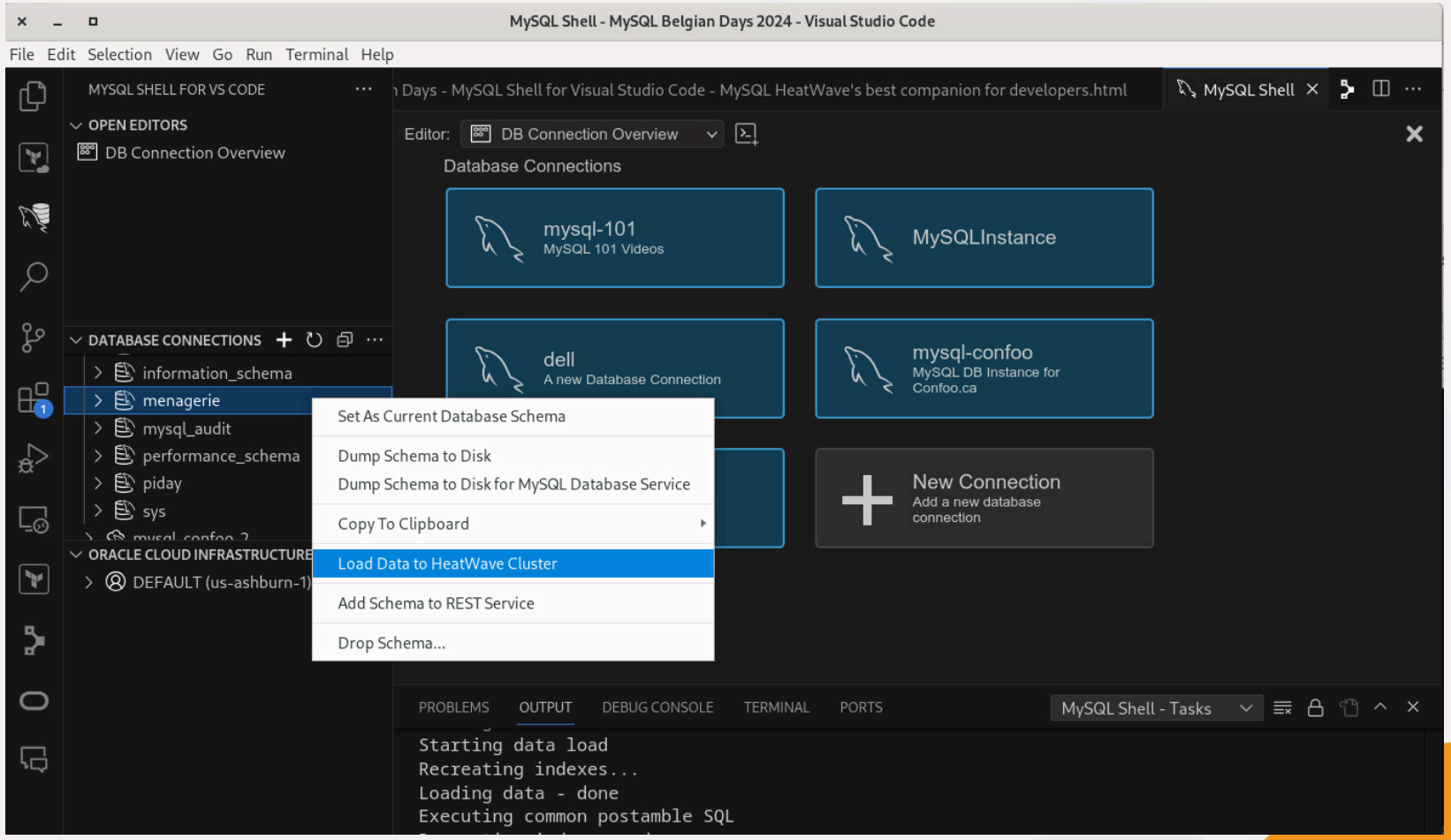
Use this command to get the full help:

```
CALL sys.heatwave_load(JSON_ARRAY("sys"),JSON_OBJECT("output","help"));
```


Copyright @ 2024 Oracle and/or its affiliates.

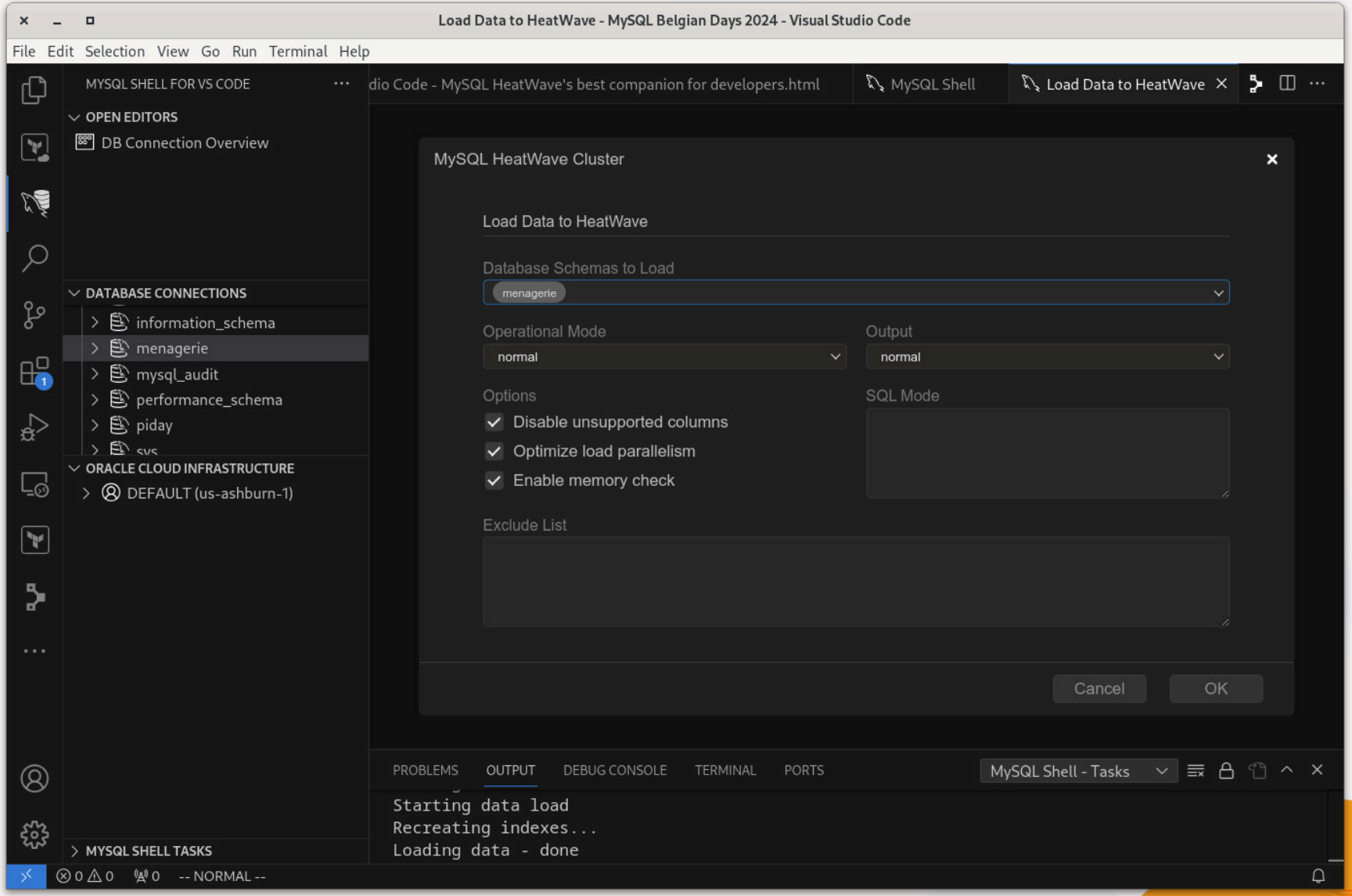
Loading Data to HeatWave Cluster

Or use MySQL Shell for VS Code:



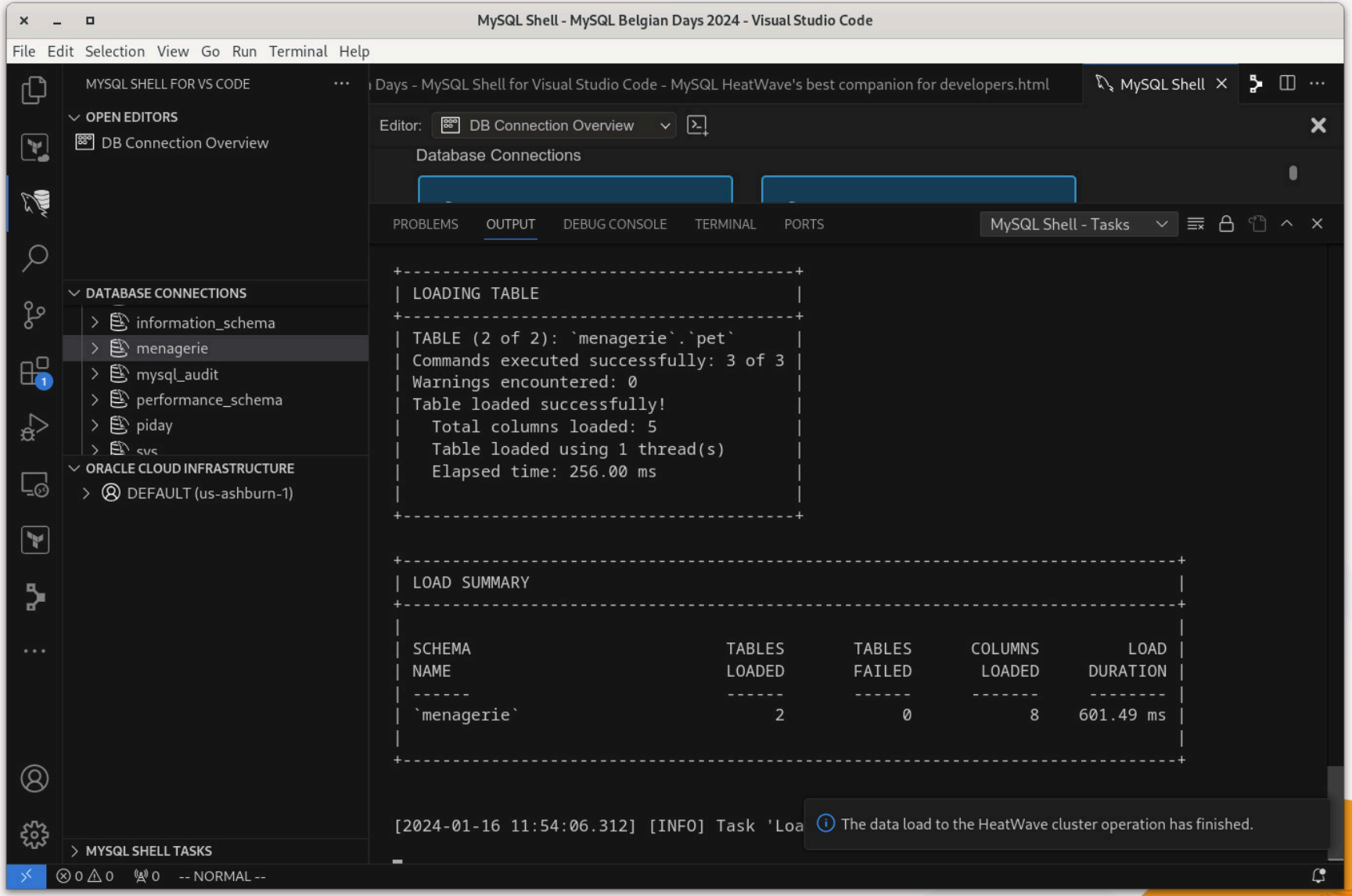
Copyright @ 2024 Oracle and/or its affiliates.

Loading Data to HeatWave Cluster



Copyright @ 2024 Oracle and/or its affiliates.

Loading Data to HeatWave Cluster



Copyright @ 2024 Oracle and/or its affiliates.

MySQL Shell for Visual Studio Code

Extending the friendship ?

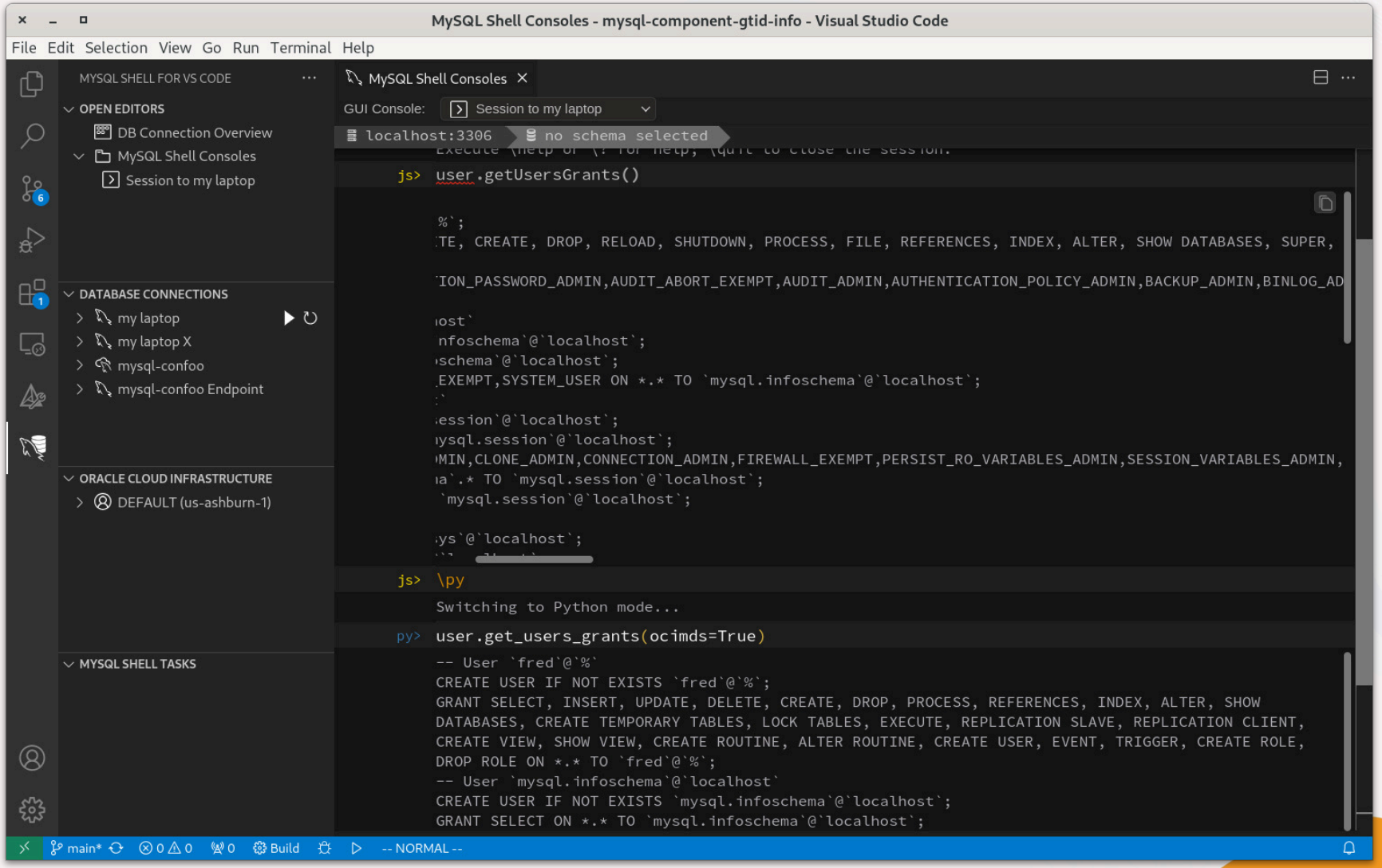
Copyright @ 2024 Oracle and/or its affiliates.

You can get more...

You can still use and extend MySQL Shell for VS Code with your own plugins !

Copyright @ 2024 Oracle and/or its affiliates.

MySQL Shell Extensions - example



Copyright @ 2024 Oracle and/or its affiliates.

Share your ❤️ to MySQL

#mysql #MySQLCommunity

slack

Join our slack channel!

bit.ly/mysql-slack

Copyright @ 2024 Oracle and/or its affiliates.

MySQL

Questions ?

Copyright @ 2024 Oracle and/or its affiliates.

.be