

Creating a Managed DB Instance

SETUP LOCAL ENVIRONMENT FIRST

For Cloud access, see the [Intro Guide](#).

To bootstrap your local environment, see the **Configuration** and **Usage** sections of the [CLI document](#).

In addition to the `openstack client`, you must also install the Trove client in order to interact with the database service.

```
python3 -m pip install --user python-troveclient
```

Example Usage

Test your client by listing the available datastores. Only **mysql** and **postgresql** are available at this time.

```
openstack datastore list
```

Obtain UUIDs

You need two UUID numbers before you create a database. The UUID of an existing [flavor](#) and the UUID of an existing [network](#).

The flavor will decide the size of the underlying system that hosts your database. Use the flavor `m1.medium`.

The network will determine if and how your database can be reached. For an **Internet** accessible database service, use the network named `campus37`. **Your database instance will be exposed directly to the Internet by default**

List [flavors](#) and [network](#) UUIDs and note the `m1.medium` and `campus37` UUIDs in the output.

```
# openstack database flavor list
+-----+-----+-----+-----+-----+-----+
| ID | Name | RAM |
vCPUs | Disk | Ephemeral |
+-----+-----+-----+-----+-----+
| 0ff9f4c1-7b57-4d5e-89fe-25511963c389 | m1.xlarge | 16384 |
8 | 128 | 0 |
| 74a0f626-dfa8-43bb-9648-29bafefef48c1 | m1.small | 2048 |
```

```
# openstack network list
+-----+-----+
+-----+
| ID                                     | Name       | Subnets  |
+-----+-----+
| 3f510b67-d623-44fe-8e35-e6e2beb9dfb5 | cloud      | 9d2c428a-14b7-4820-  
aeca-57fe3faaae0b |
| b5d53de5-9ebe-4166-950e-957d4f2507de | campus37   | e4c5c059-616b-4321-  
b8fd-72510f4b7c5e |
+-----+-----+
+-----+
```

These examples may include sample output or IDs that can change. Beware if you copy and paste it.

```

openstack datastore version list mysql
+-----+-----+-----+
| ID                | Name      | Version |
+-----+-----+-----+
| ce40c975-0c62-4cee-aeac-a202150d9c71 | 5.7.29    |         |
| 011bf990-34c5-41dc-9d94-cd29ad86dbd9 | 5.7.33    |         |
+-----+-----+-----+

```

This command will request a MySQL 5.7.29, 10GB database named mytestdb with a specific user and password.

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```
--users chudler:NotVewySecure \
--datastore mysql \
--datastore-version 5.7.29 \
--allowed-cidr 128.135.164.0/24 \
--allowed-cidr 10.135.164.0/24
```

After a few moments, check the status of your database instance.

```
openstack database instance show mydb
```

Field	Value
allowed_cidrs	['128.135.164.0/24', '10.135.164.0/24']
created	2021-04-15T22:18:07
datastore	mysql
datastore_version	5.7.29
datastore_version_number	None
flavor	8c70c6f6-0608-415e-8674-ed948d8a3387
id	1d53f400-b3ec-4b08-90e0-6b7b48c8e7c5
name	mydb
public	False
region	RegionOne
service_status_updated	2021-04-15T22:18:07
status	BUILD
updated	2021-04-15T22:18:24
volume	10

Note that your instance **status** is set to **BUILD** until the database is ready. This output also includes the `server_id` which is crucial for troubleshooting, and shows how your database is backed by an on-demand virtual instance.

When the database instance status changes to **HEALTHY**, you can connect to your database using the IP address that is shown in the output:

```
mysql -u chudler -h 128.135.37.9 --password=NotVewySecure
```

Customizing DB Configuration

You can change the configuration of the database while it is running, and apply configurations across groups of systems. See [Upstream Docs](#)

PostgreSQL Usage Example

Follow the preceding MySQL example, but ask for a different datastore and version in the instance request. For example

```
openstack database instance create myPGdb \
```

```
--flavor 8c70c6f6-0608-415e-8674-ed948d8a3387 \  
--nic net-id=b5d53de5-9ebe-4166-950e-957d4f2507de \  
--size 10 \  
--databases mytestdb \  
--users chudler:NotVewySecure \  
--datastore postgresql \  
--datastore-version 12.6 \  
--allowed-cidr 128.135.164.0/24 \  
--allowed-cidr 10.135.164.0/24
```

We do not yet support PG13.

External Users Docs

The [Official Docs](#) have a lot of information that is not covered here.

- Backup/Snapshot
- Managing Users
- Managing DBs
- Upgrading
- Configuration
- Replication
- Clustering

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