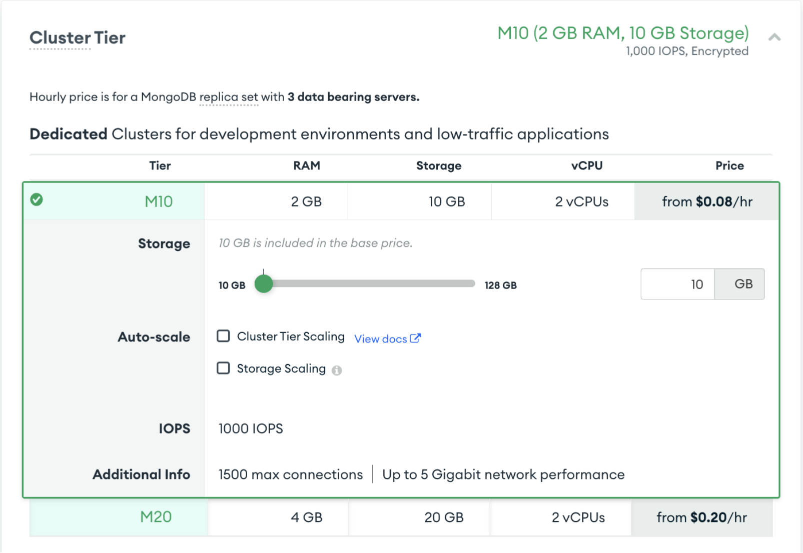
Procedure to Connect to Mongo-DB running on Atlas from Jupyter-Notebook.

Instance - Setup on the Atlas.

1. Setup instance on the Atlas. Following items need to be covered.
   a. Select the Tier for advanced monitoring and performance analysis. For this exercise, we create the “M10” tier cluster.



Cluster Tier — M10 (2 GB RAM, 10 GB Storage)
1,000 IOPS, Encrypted

Hourly price is for a MongoDB replica set with **3 data bearing servers.**

Dedicated Clusters for development environments and low-traffic applications

Tier	RAM	Storage	vCPU	Price
✓ M10	2 GB	10 GB	2 vCPUs	from **$0.08**/hr

Storage: *10 GB is included in the base price.* 10 GB — 128 GB; 10 GB

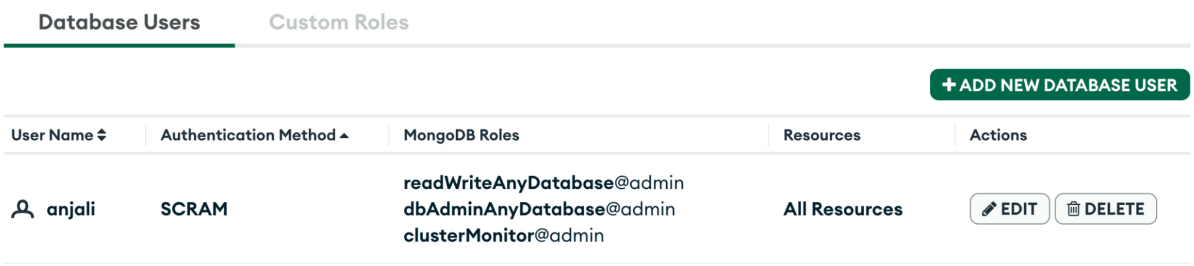
Auto-scale: □ Cluster Tier Scaling View docs; □ Storage Scaling

IOPS: 1000 IOPS

Additional Info: 1500 max connections | Up to 5 Gigabit network performance

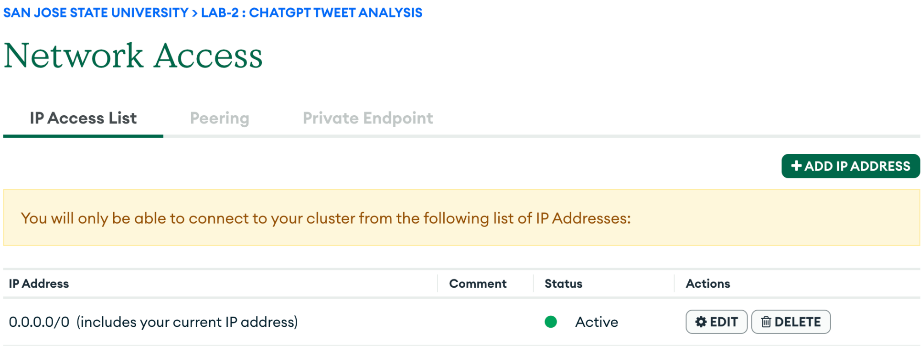
Tier	RAM	Storage	vCPU	Price
M20	4 GB	20 GB	2 vCPUs	from **$0.20**/hr

   b. Create User, and set the required roles for the database interaction. For this exercise, we assign the following roles to the user.



User Name	Authentication Method	MongoDB Roles	Resources	Actions
anjali	SCRAM	**readWriteAnyDatabase**@admin **dbAdminAnyDatabase**@admin **clusterMonitor**@admin	All Resources	EDIT DELETE

   c. Since multiple team-members will be interacting with the database, we set the incoming traffic from everywhere.



SAN JOSE STATE UNIVERSITY > LAB-2 : CHATGPT TWEET ANALYSIS

Network Access

You will only be able to connect to your cluster from the following list of IP Addresses:

IP Address	Comment	Status	Actions
0.0.0.0/0 (includes your current IP address)		● Active	EDIT DELETE

Database Connection with Jupyter-Notebook

2. Install the **pyomongo** library. Pymongo library allows interaction with the MongoDB database through Python.

```
 !pip install pymongo
```

3. Import the **pyomongo** libraries to the jupyter notebook.

```
import pymongo
from pymongo import MongoClient
```

4. Create MongoClient, using the username and password which were used while creating mongo-Db (atlas) account. We also need to give the cluster name where our instance is running.

```
cluster = "atlascluster.vdyux8r.mongodb.net"
user = "anjali"
password = "mongopassword"
client = pymongo.MongoClient(f"mongodb+srv://{user}:{password}@{cluster}/test")
db = client['twitter']
```

5. We later used <collection.insert_many> api for the insert commands.

6. For reading data, we use <collection.aggreate[<conditions>]> api. And this returns output in json format.