Assignement 2 DSCD Ankit Kumar Aryan Rohilla Dharani Kumar S

Google cloud setup

- Created 5 VMs, 4 in one region(upper limit is 4) and 1 in another region.
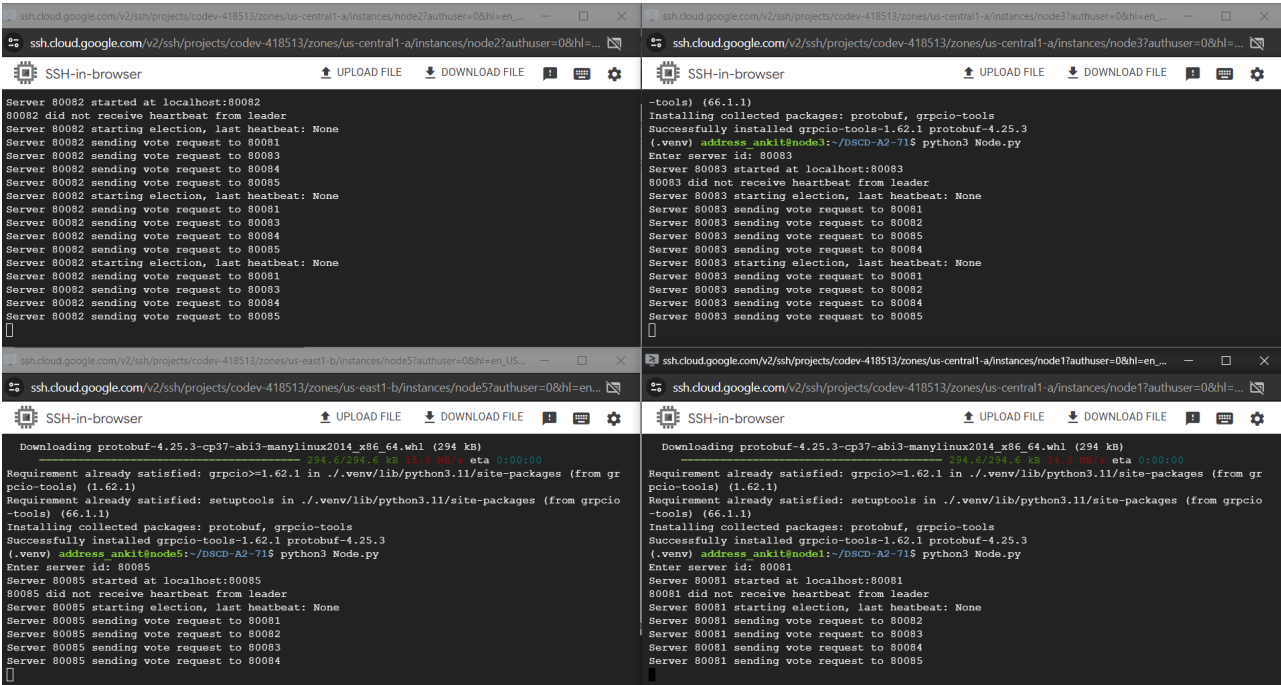

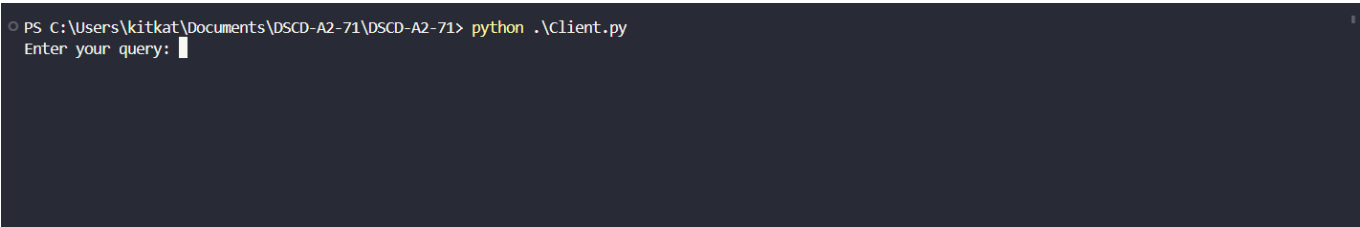- Since IP addresses can change, I have to manually change the input IP addresses in the code.

- here is the setup where nodes are running on my google cloud

client running on the local machine vscode

Modified Raft.py with Leader Lease using gRPC

Proto file can be found in the raft.proto

Installation

- setup the environment

- install grpcio-tools and grpcio
- run the following command to generate the python files from the proto file

```
python3 -m grpc_tools.protoc -I. --python_out=. --grpc_python_out=. raft.proto
```

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Usage

- To start a Raft node:

```
python3 Node.py
```

- set up the server id in the code that is port and IP address

- Run the above command in 5 different terminals, and enter the following server id in each terminal:

- To start a Raft client:

```
python3 Client.py
```

- The client can send the following commands

- `SET key value` to set a key-value pair

- `GET key` to get the value of a key