Cloud Computing

Assignment II

Group No. 52

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Description

A web-application for searching Image meta-data using a Nodejs server as backend and MongoDB server as database running on separate docker containers communicating with each other hosted on an AWS EC2 instance.

Public IP: 18.222.223.173

Procedure

- Configured Nodejs server to listen to port 3000(using Express), and mongo on its default port 27017(using mongoose).
- Database Schema consisting of 7 fields: Date of Addition, Format of image (jpeg,png etc), Image Size, Focal Length, Exposure, Location, Date & Time of Capture. Created indexes for all fields for searching purposes.
- Configured login page with two users.
 - o guest with password guest with the functionality to search image metadata from database. Additionally all present items will be displayed to the user.
 - Admin with username: root and password: root with only one functionality to add new items to the database. Admin can add only one item in a session after which he'll be logged out.
 - Authentication not secure. Implemented using a simple form with text fields.
- Configured Dockerfile specifying node version, commands to run and exposing

port 3000.

- Configured docker-compose.yml specifying two containers used docker-node-app and mongo and linking them. Mapped port 3000 of container to port 80 of localhost.
- Tested with docker-compose up in local system.
- Created an EC2 instance in AWS to deploy the app, did all configuration.
- Connected to the instance and deployed the app.

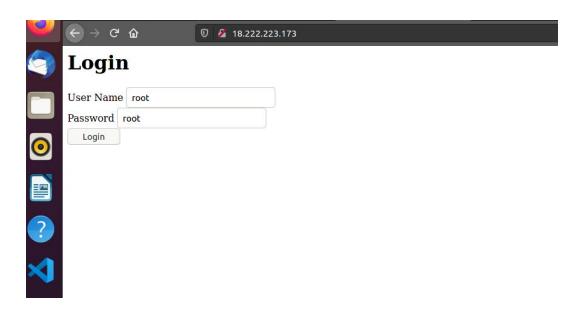
o Public IPv4: 18.222.223.173

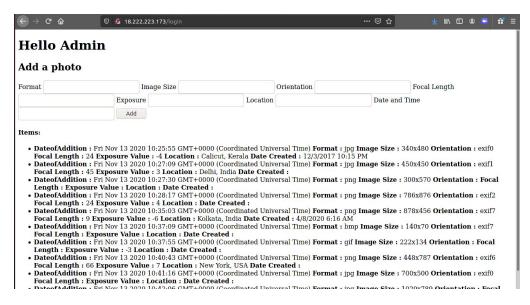
o Public IPv4 DNS: ec2-18-222-223-173.us-east-2.compute.amazonaws.com

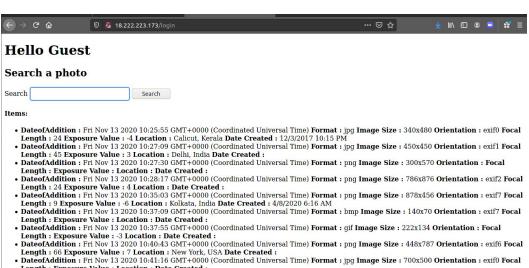
o Private IP: 172.31.20.34

Snapshots

```
mongod
ibuntu@ip-172-31-20-34:~/docker-node-mongo$ sudo docker ps
CONTAINER ID
                    IMAGE
                                                                      CREATED
                                           COMMAND
       STATUS
                            PORTS
                                                        NAMES
                                           "docker-entrypoint.s.."
 154b5c4b74
                    dockernodemongo_app
                                                                      6 hours ago
       Up 6 hours
                            0.0.0.0:80->3000/tcp
                                                        docker-node-mongo
  7a069e3136
                    mongo
                                            "docker-entrypoint.s.."
                                                                      6 hours ago
                            0.0.0.0:27017->27<u>0</u>17/tcp
       Up 6 hours
                                                       mongo
```







DateofAddition: Fri Nov 13 2020 10:42:06 GMT+0000 (Coordinated Universal Time) Format: jpg Image Size: 1020x789 Orientation: Focal Length: 33 Exposure Value: Location: Hyderabad, India Date Created: 27/8/2011 5:00 PM

Length: Exposure Value: Location: Date Created: