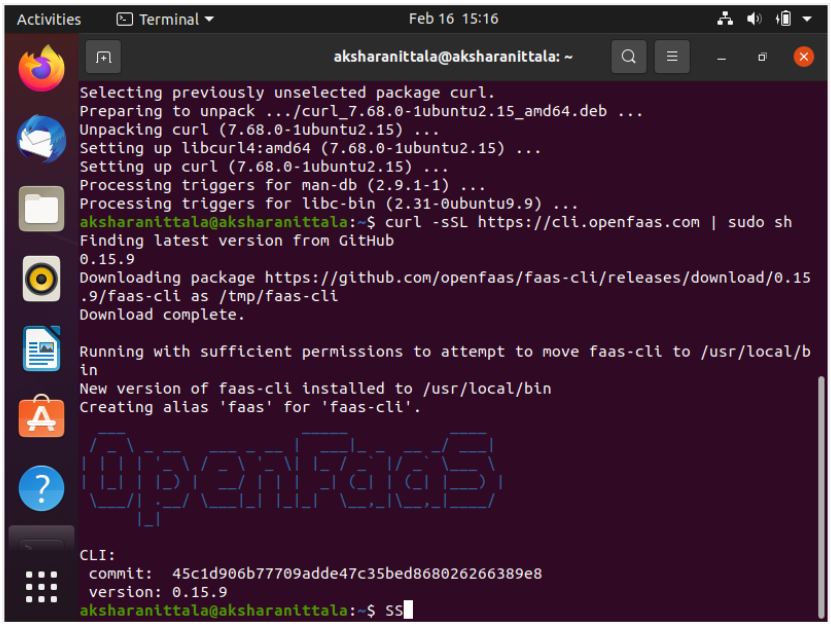
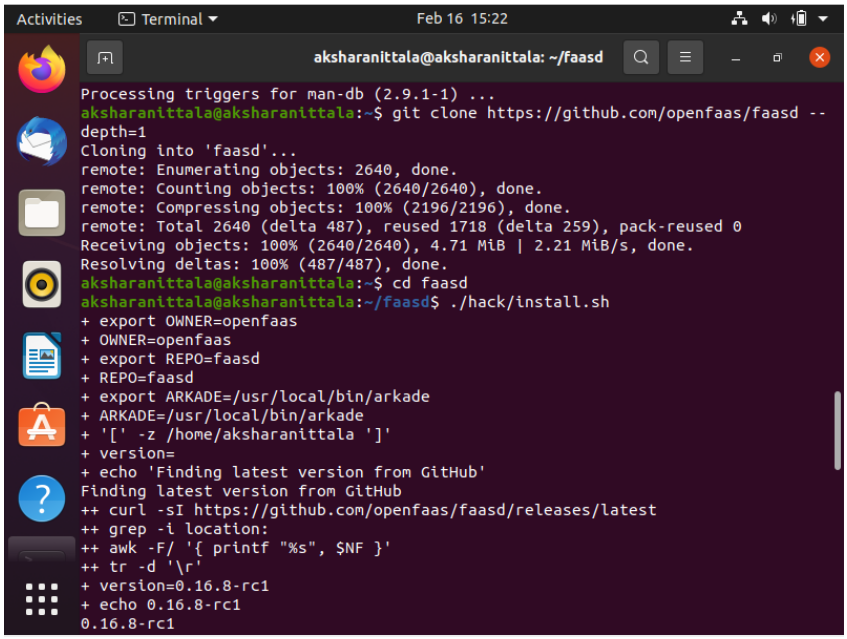
Step 1: Installation of OpenFaas on Ubuntu 20.04 LTS:



Step 2: Deploy OpenFaas

Installation of OpenFaas:

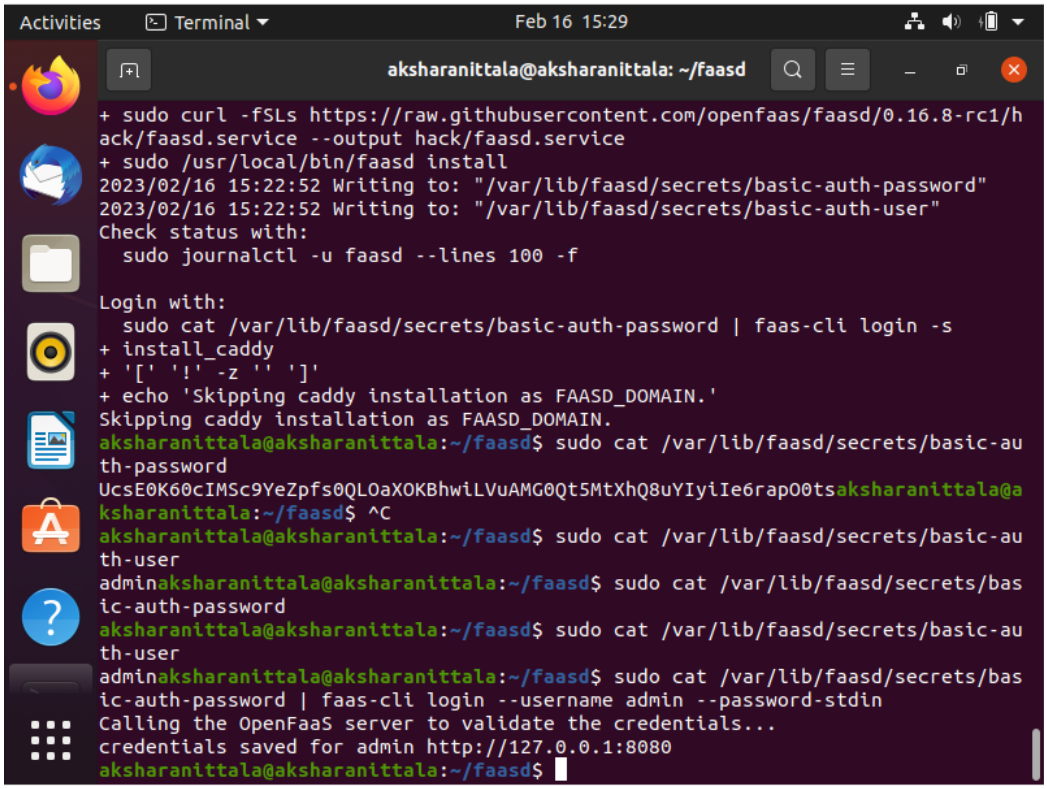


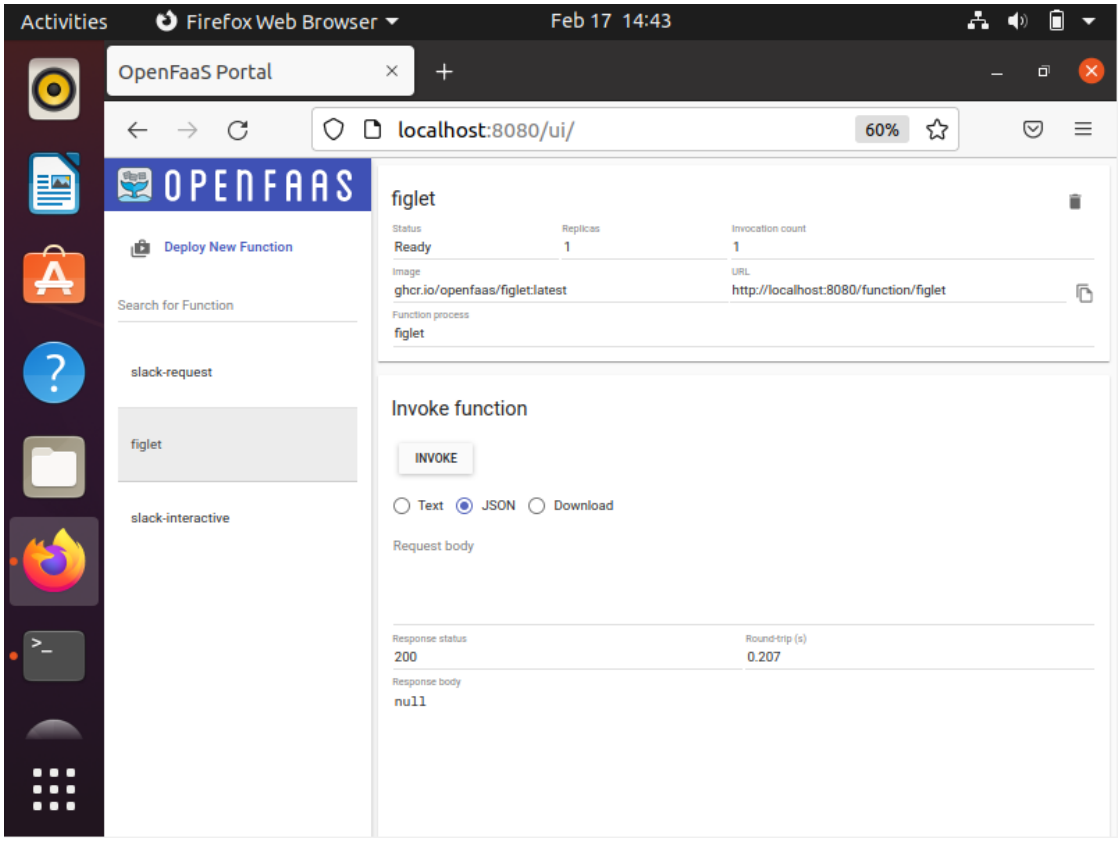
Getting OpenFaas CLI username and password:

```
aksharanittala@aksharanittala:~/faasd$ sudo cat /var/lib/faasd/secrets/basic-au
th-password
UcsE0K60cIMSc9YeZpfs0QLOaXOKBhwiLVuAMG0Qt5MtXhQ8uYIyiIe6rapO0tsaksharanittala@a
ksharanittala:~/faasd$ ^C
aksharanittala@aksharanittala:~/faasd$ sudo cat /var/lib/faasd/secrets/basic-au
th-user
adminaksharanittala@aksharanittala:~/faasd$ sudo cat /var/lib/faasd/secrets/bas
```

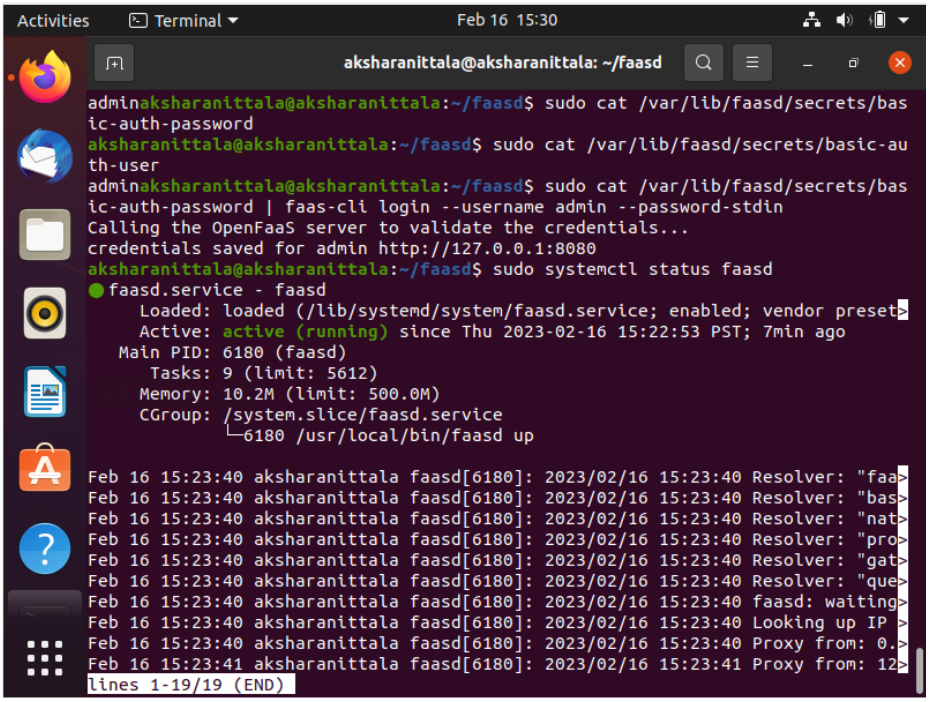
Username: admin
Password: UcsE0K60cIMSc9YeZpfs0QLOaXOKBhwiLVuAMG0Qt5MtXhQ8uYIyiIe6rapO0ts

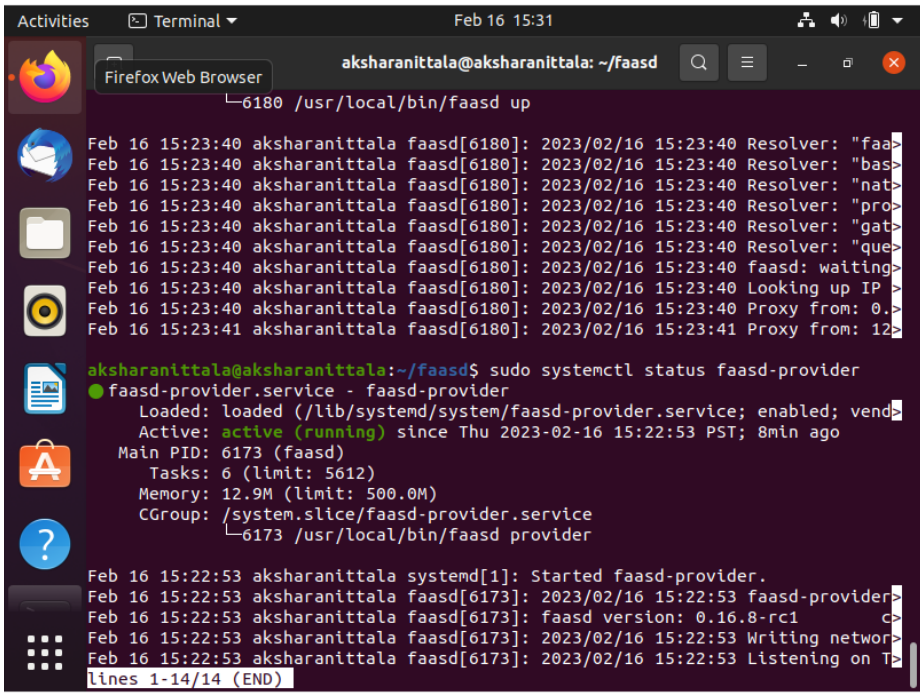
Logging into OpenFaas CLI:

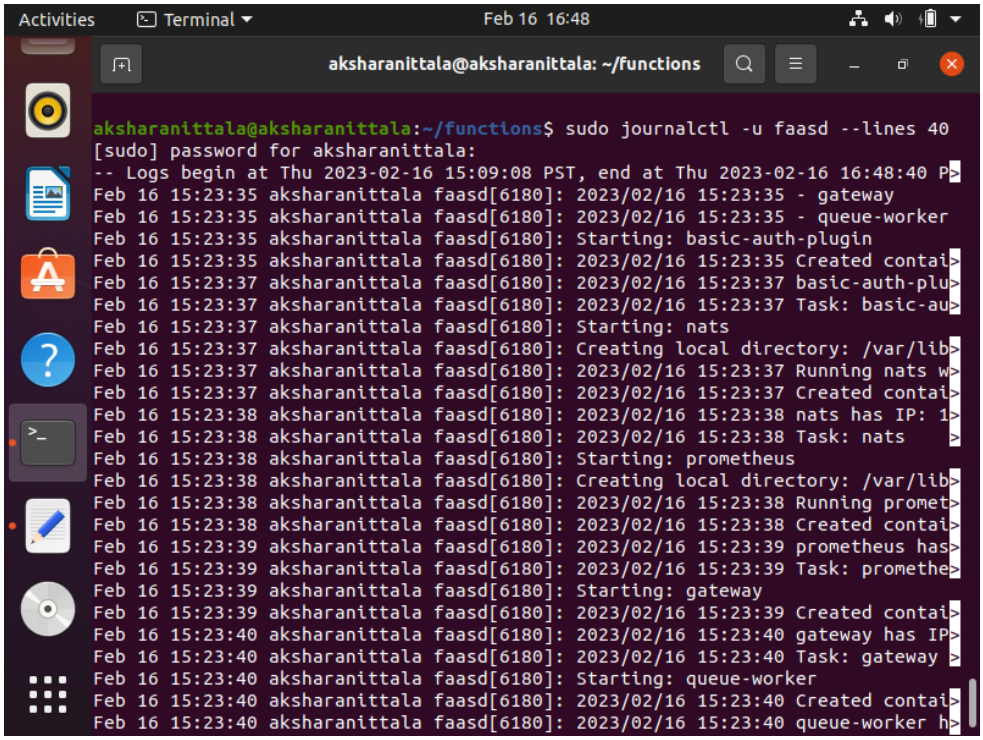


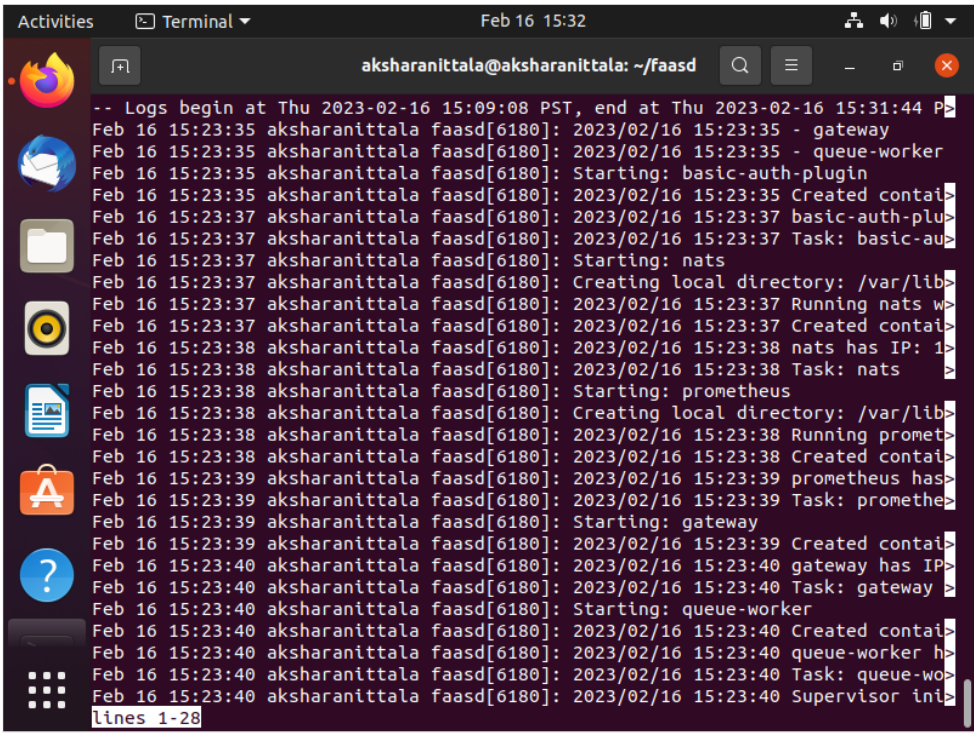


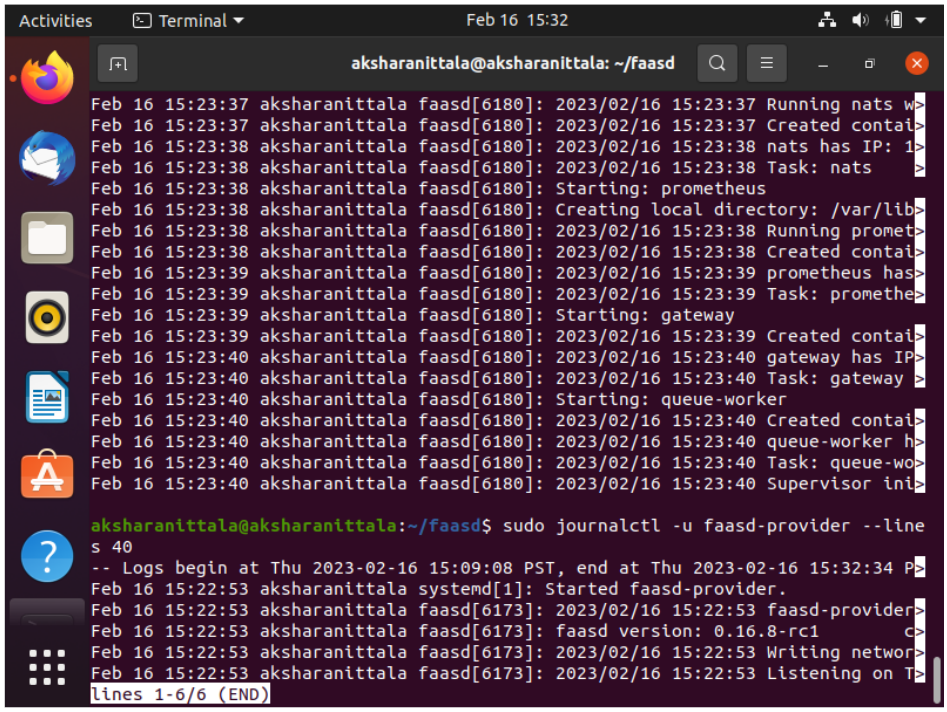
Step 3: Verify OpenFaas Installation

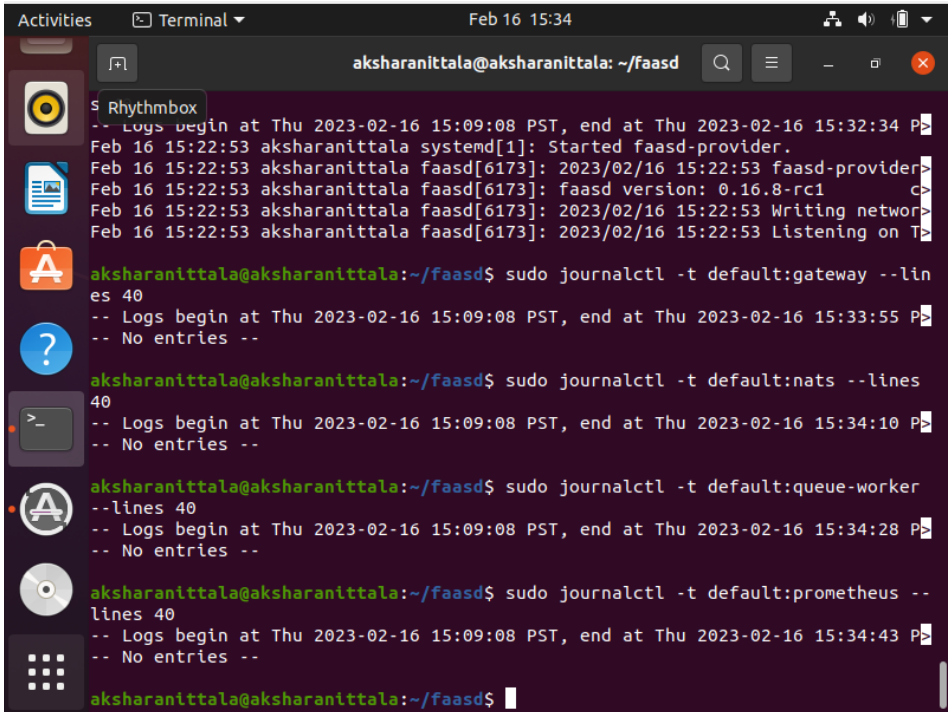

Activities
Terminal
Feb 16 15:30
aksharanittala@aksharanittala: ~/faasd
adminaksharanittala@aksharanittala:~/faasd$ sudo cat /var/lib/faasd/secrets/basic-auth-password
aksharanittala@aksharanittala:~/faasd$ sudo cat /var/lib/faasd/secrets/basic-auth-user
adminaksharanittala@aksharanittala:~/faasd$ sudo cat /var/lib/faasd/secrets/basic-auth-password | faas-cli login --username admin --password-stdin
Calling the OpenFaaS server to validate the credentials...
credentials saved for admin http://127.0.0.1:8080
aksharanittala@aksharanittala:~/faasd$ sudo systemctl status faasd
faasd.service - faasd
Loaded: loaded (/lib/systemd/system/faasd.service; enabled; vendor preset>
Active: active (running) since Thu 2023-02-16 15:22:53 PST; 7min ago
Main PID: 6180 (faasd)
Tasks: 9 (limit: 5612)
Memory: 10.2M (limit: 500.0M)
CGroup: /system.slice/faasd.service
└6180 /usr/local/bin/faasd up
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 Resolver: "faa>
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 Resolver: "bas>
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 Resolver: "nat>
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 Resolver: "pro>
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 Resolver: "gat>
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 Resolver: "que>
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 faasd: waiting>
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 Looking up IP >
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 Proxy from: 0.>
Feb 16 15:23:41 aksharanittala faasd[6180]: 2023/02/16 15:23:41 Proxy from: 12>
lines 1-19/19 (END)


Activities
Terminal
Feb 16 15:31
Firefox Web Browser
aksharanittala@aksharanittala: ~/faasd
└6180 /usr/local/bin/faasd up
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 Resolver: "faa>
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 Resolver: "bas>
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 Resolver: "nat>
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 Resolver: "pro>
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 Resolver: "gat>
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 Resolver: "que>
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 faasd: waiting>
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 Looking up IP >
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 Proxy from: 0.>
Feb 16 15:23:41 aksharanittala faasd[6180]: 2023/02/16 15:23:41 Proxy from: 12>
aksharanittala@aksharanittala:~/faasd$ sudo systemctl status faasd-provider
faasd-provider.service - faasd-provider
Loaded: loaded (/lib/systemd/system/faasd-provider.service; enabled; vend>
Active: active (running) since Thu 2023-02-16 15:22:53 PST; 8min ago
Main PID: 6173 (faasd)
Tasks: 6 (limit: 5612)
Memory: 12.9M (limit: 500.0M)
CGroup: /system.slice/faasd-provider.service
└6173 /usr/local/bin/faasd provider
Feb 16 15:22:53 aksharanittala systemd[1]: Started faasd-provider.
Feb 16 15:22:53 aksharanittala faasd[6173]: 2023/02/16 15:22:53 faasd-provider>
Feb 16 15:22:53 aksharanittala faasd[6173]: faasd version: 0.16.8-rc1 c>
Feb 16 15:22:53 aksharanittala faasd[6173]: 2023/02/16 15:22:53 Writing networ>
Feb 16 15:22:53 aksharanittala faasd[6173]: 2023/02/16 15:22:53 Listening on T>
lines 1-14/14 (END)

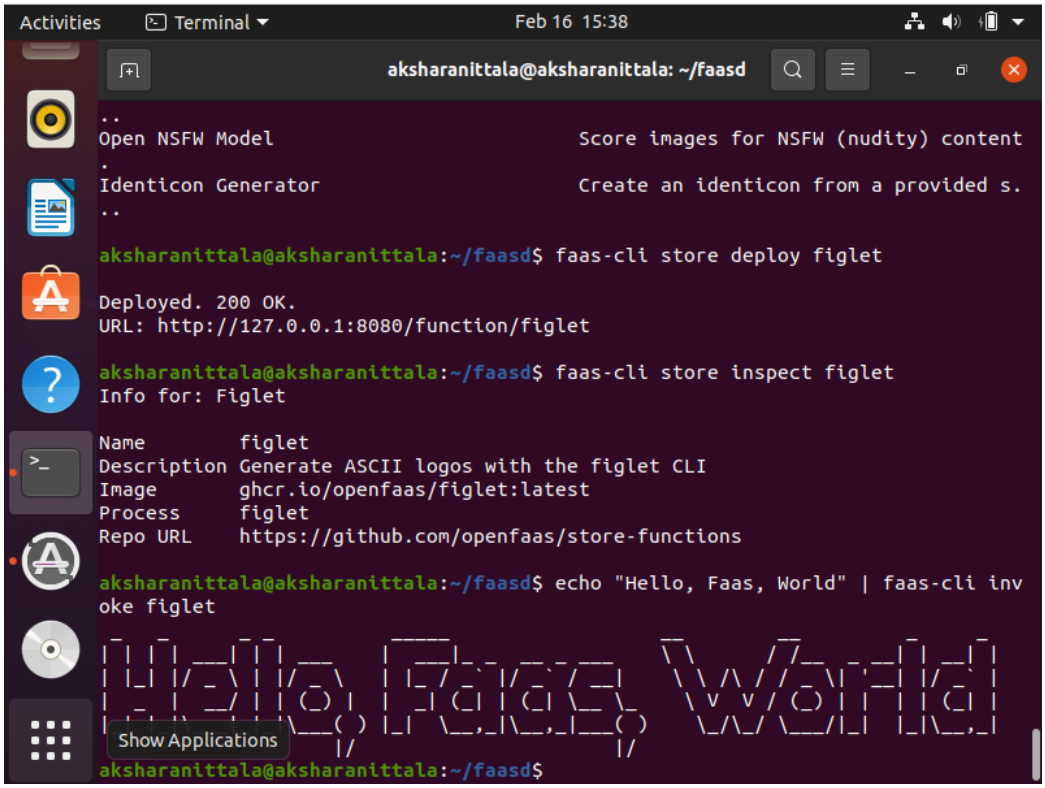

Activities
Terminal
Feb 16 16:48
aksharanittala@aksharanittala: ~/functions
aksharanittala@aksharanittala:~/functions$ sudo journalctl -u faasd --lines 40
[sudo] password for aksharanittala:
-- Logs begin at Thu 2023-02-16 15:09:08 PST, end at Thu 2023-02-16 16:48:40 P
Feb 16 15:23:35 aksharanittala faasd[6180]: 2023/02/16 15:23:35 - gateway
Feb 16 15:23:35 aksharanittala faasd[6180]: 2023/02/16 15:23:35 - queue-worker
Feb 16 15:23:35 aksharanittala faasd[6180]: Starting: basic-auth-plugin
Feb 16 15:23:35 aksharanittala faasd[6180]: 2023/02/16 15:23:35 Created contai
Feb 16 15:23:37 aksharanittala faasd[6180]: 2023/02/16 15:23:37 basic-auth-plu
Feb 16 15:23:37 aksharanittala faasd[6180]: 2023/02/16 15:23:37 Task: basic-au
Feb 16 15:23:37 aksharanittala faasd[6180]: Starting: nats
Feb 16 15:23:37 aksharanittala faasd[6180]: Creating local directory: /var/lib
Feb 16 15:23:37 aksharanittala faasd[6180]: 2023/02/16 15:23:37 Running nats w
Feb 16 15:23:37 aksharanittala faasd[6180]: 2023/02/16 15:23:37 Created contai
Feb 16 15:23:38 aksharanittala faasd[6180]: 2023/02/16 15:23:38 nats has IP: 1
Feb 16 15:23:38 aksharanittala faasd[6180]: 2023/02/16 15:23:38 Task: nats
Feb 16 15:23:38 aksharanittala faasd[6180]: Starting: prometheus
Feb 16 15:23:38 aksharanittala faasd[6180]: Creating local directory: /var/lib
Feb 16 15:23:38 aksharanittala faasd[6180]: 2023/02/16 15:23:38 Running promet
Feb 16 15:23:38 aksharanittala faasd[6180]: 2023/02/16 15:23:38 Created contai
Feb 16 15:23:39 aksharanittala faasd[6180]: 2023/02/16 15:23:39 prometheus has
Feb 16 15:23:39 aksharanittala faasd[6180]: 2023/02/16 15:23:39 Task: promethe
Feb 16 15:23:39 aksharanittala faasd[6180]: Starting: gateway
Feb 16 15:23:39 aksharanittala faasd[6180]: 2023/02/16 15:23:39 Created contai
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 gateway has IP
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 Task: gateway
Feb 16 15:23:40 aksharanittala faasd[6180]: Starting: queue-worker
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 Created contai
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 queue-worker h


Activities
Terminal
Feb 16 15:32
aksharanittala@aksharanittala: ~/faasd
-- Logs begin at Thu 2023-02-16 15:09:08 PST, end at Thu 2023-02-16 15:31:44 P
Feb 16 15:23:35 aksharanittala faasd[6180]: 2023/02/16 15:23:35 - gateway
Feb 16 15:23:35 aksharanittala faasd[6180]: 2023/02/16 15:23:35 - queue-worker
Feb 16 15:23:35 aksharanittala faasd[6180]: Starting: basic-auth-plugin
Feb 16 15:23:35 aksharanittala faasd[6180]: 2023/02/16 15:23:35 Created contai
Feb 16 15:23:37 aksharanittala faasd[6180]: 2023/02/16 15:23:37 basic-auth-plu
Feb 16 15:23:37 aksharanittala faasd[6180]: 2023/02/16 15:23:37 Task: basic-au
Feb 16 15:23:37 aksharanittala faasd[6180]: Starting: nats
Feb 16 15:23:37 aksharanittala faasd[6180]: Creating local directory: /var/lib
Feb 16 15:23:37 aksharanittala faasd[6180]: 2023/02/16 15:23:37 Running nats w
Feb 16 15:23:37 aksharanittala faasd[6180]: 2023/02/16 15:23:37 Created contai
Feb 16 15:23:38 aksharanittala faasd[6180]: 2023/02/16 15:23:38 nats has IP: 1
Feb 16 15:23:38 aksharanittala faasd[6180]: 2023/02/16 15:23:38 Task: nats
Feb 16 15:23:38 aksharanittala faasd[6180]: Starting: prometheus
Feb 16 15:23:38 aksharanittala faasd[6180]: Creating local directory: /var/lib
Feb 16 15:23:38 aksharanittala faasd[6180]: 2023/02/16 15:23:38 Running promet
Feb 16 15:23:38 aksharanittala faasd[6180]: 2023/02/16 15:23:38 Created contai
Feb 16 15:23:39 aksharanittala faasd[6180]: 2023/02/16 15:23:39 prometheus has
Feb 16 15:23:39 aksharanittala faasd[6180]: 2023/02/16 15:23:39 Task: promethe
Feb 16 15:23:39 aksharanittala faasd[6180]: Starting: gateway
Feb 16 15:23:39 aksharanittala faasd[6180]: 2023/02/16 15:23:39 Created contai
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 gateway has IP
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 Task: gateway
Feb 16 15:23:40 aksharanittala faasd[6180]: Starting: queue-worker
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 Created contai
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 queue-worker h
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 Task: queue-wo
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 Supervisor ini
lines 1-28

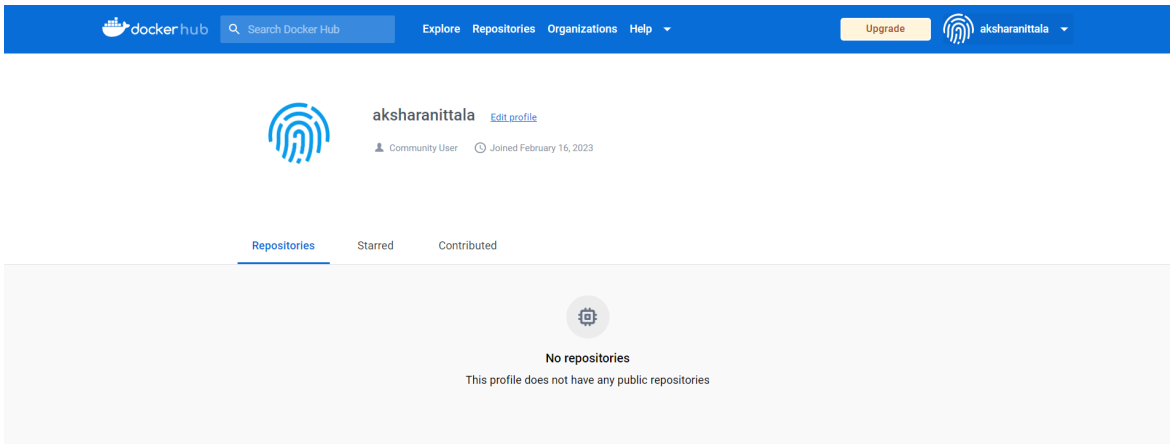

Activities
Terminal
Feb 16 15:32
aksharanittala@aksharanittala: ~/faasd
Feb 16 15:23:37 aksharanittala faasd[6180]: 2023/02/16 15:23:37 Running nats w>
Feb 16 15:23:37 aksharanittala faasd[6180]: 2023/02/16 15:23:37 Created contai>
Feb 16 15:23:38 aksharanittala faasd[6180]: 2023/02/16 15:23:38 nats has IP: 1>
Feb 16 15:23:38 aksharanittala faasd[6180]: 2023/02/16 15:23:38 Task: nats >
Feb 16 15:23:38 aksharanittala faasd[6180]: Starting: prometheus
Feb 16 15:23:38 aksharanittala faasd[6180]: Creating local directory: /var/lib>
Feb 16 15:23:38 aksharanittala faasd[6180]: 2023/02/16 15:23:38 Running promet>
Feb 16 15:23:38 aksharanittala faasd[6180]: 2023/02/16 15:23:38 Created contai>
Feb 16 15:23:39 aksharanittala faasd[6180]: 2023/02/16 15:23:39 prometheus has>
Feb 16 15:23:39 aksharanittala faasd[6180]: 2023/02/16 15:23:39 Task: promethe>
Feb 16 15:23:39 aksharanittala faasd[6180]: Starting: gateway
Feb 16 15:23:39 aksharanittala faasd[6180]: 2023/02/16 15:23:39 Created contai>
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 gateway has IP>
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 Task: gateway >
Feb 16 15:23:40 aksharanittala faasd[6180]: Starting: queue-worker
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 Created contai>
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 queue-worker h>
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 Task: queue-wo>
Feb 16 15:23:40 aksharanittala faasd[6180]: 2023/02/16 15:23:40 Supervisor ini>
aksharanittala@aksharanittala:~/faasd$ sudo journalctl -u faasd-provider --line
s 40
-- Logs begin at Thu 2023-02-16 15:09:08 PST, end at Thu 2023-02-16 15:32:34 P>
Feb 16 15:22:53 aksharanittala systemd[1]: Started faasd-provider.
Feb 16 15:22:53 aksharanittala faasd[6173]: 2023/02/16 15:22:53 faasd-provider>
Feb 16 15:22:53 aksharanittala faasd[6173]: faasd version: 0.16.8-rc1 c>
Feb 16 15:22:53 aksharanittala faasd[6173]: 2023/02/16 15:22:53 Writing networ>
Feb 16 15:22:53 aksharanittala faasd[6173]: 2023/02/16 15:22:53 Listening on T>
lines 1-6/6 (END)


Activities
Terminal
Feb 16 15:34
aksharanittala@aksharanittala: ~/faasd
Rhythmbox
-- Logs begin at Thu 2023-02-16 15:09:08 PST, end at Thu 2023-02-16 15:32:34 P>
Feb 16 15:22:53 aksharanittala systemd[1]: Started faasd-provider.
Feb 16 15:22:53 aksharanittala faasd[6173]: 2023/02/16 15:22:53 faasd-provider>
Feb 16 15:22:53 aksharanittala faasd[6173]: faasd version: 0.16.8-rc1 c>
Feb 16 15:22:53 aksharanittala faasd[6173]: 2023/02/16 15:22:53 Writing networ>
Feb 16 15:22:53 aksharanittala faasd[6173]: 2023/02/16 15:22:53 Listening on T>
aksharanittala@aksharanittala:~/faasd$ sudo journalctl -t default:gateway --lin
es 40
-- Logs begin at Thu 2023-02-16 15:09:08 PST, end at Thu 2023-02-16 15:33:55 P>
-- No entries --
aksharanittala@aksharanittala:~/faasd$ sudo journalctl -t default:nats --lines
40
-- Logs begin at Thu 2023-02-16 15:09:08 PST, end at Thu 2023-02-16 15:34:10 P>
-- No entries --
aksharanittala@aksharanittala:~/faasd$ sudo journalctl -t default:queue-worker
--lines 40
-- Logs begin at Thu 2023-02-16 15:09:08 PST, end at Thu 2023-02-16 15:34:28 P>
-- No entries --
aksharanittala@aksharanittala:~/faasd$ sudo journalctl -t default:prometheus --
lines 40
-- Logs begin at Thu 2023-02-16 15:09:08 PST, end at Thu 2023-02-16 15:34:43 P>
-- No entries --
aksharanittala@aksharanittala:~/faasd$

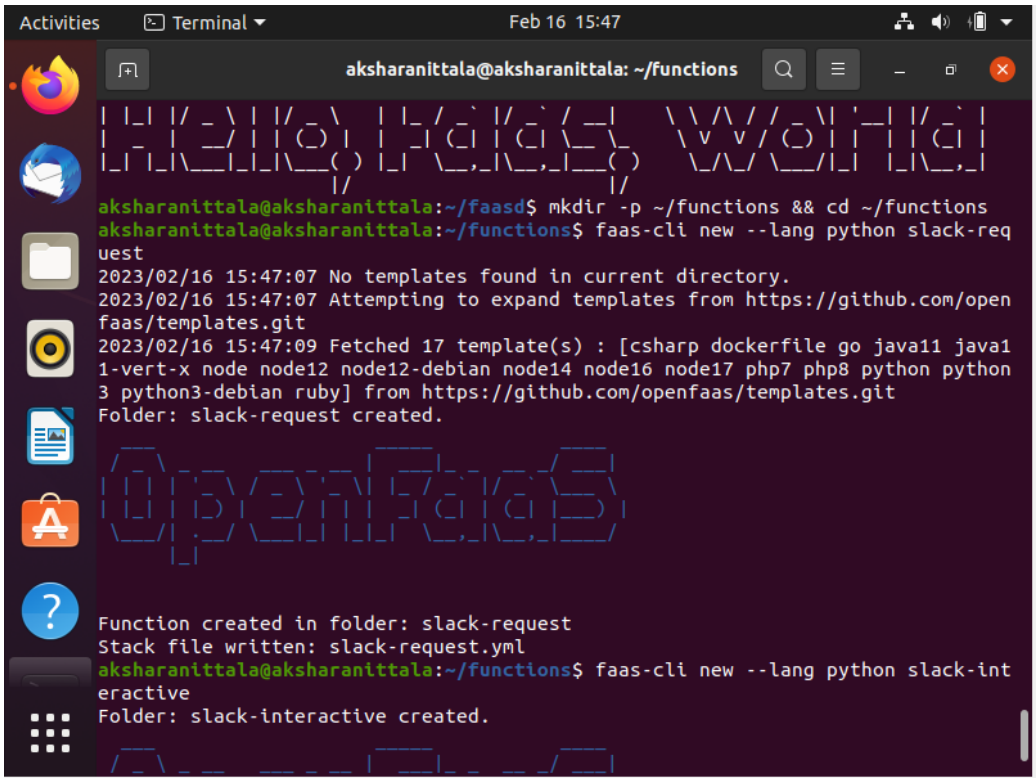
Step 4: Trying out a function from the store:

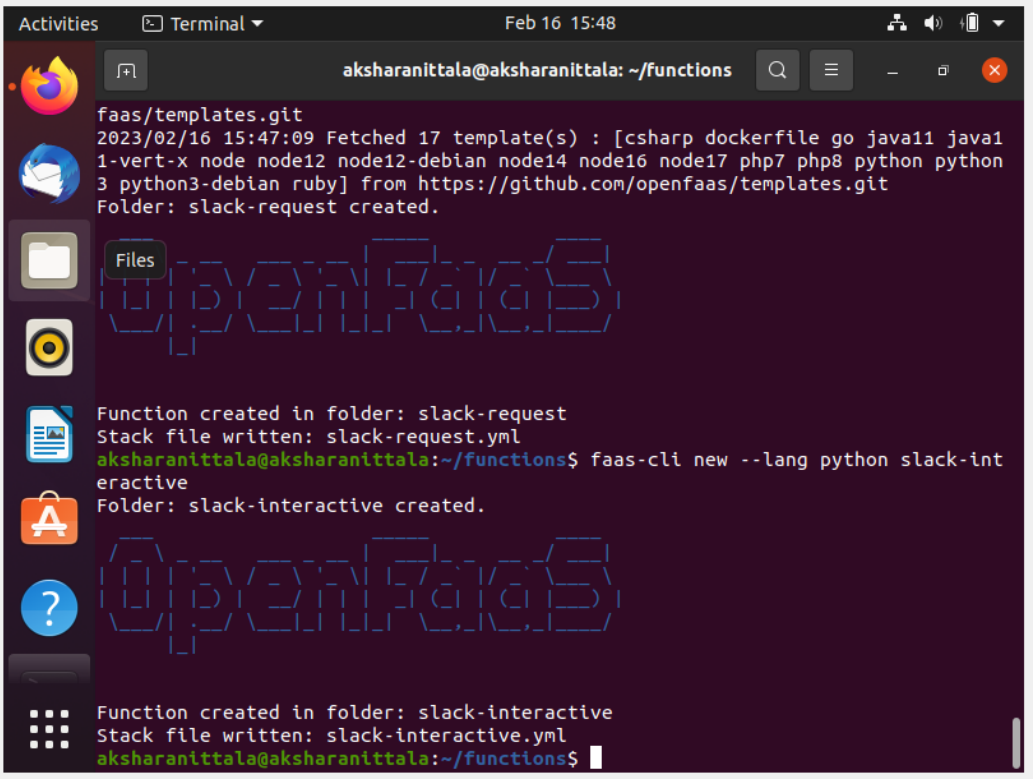


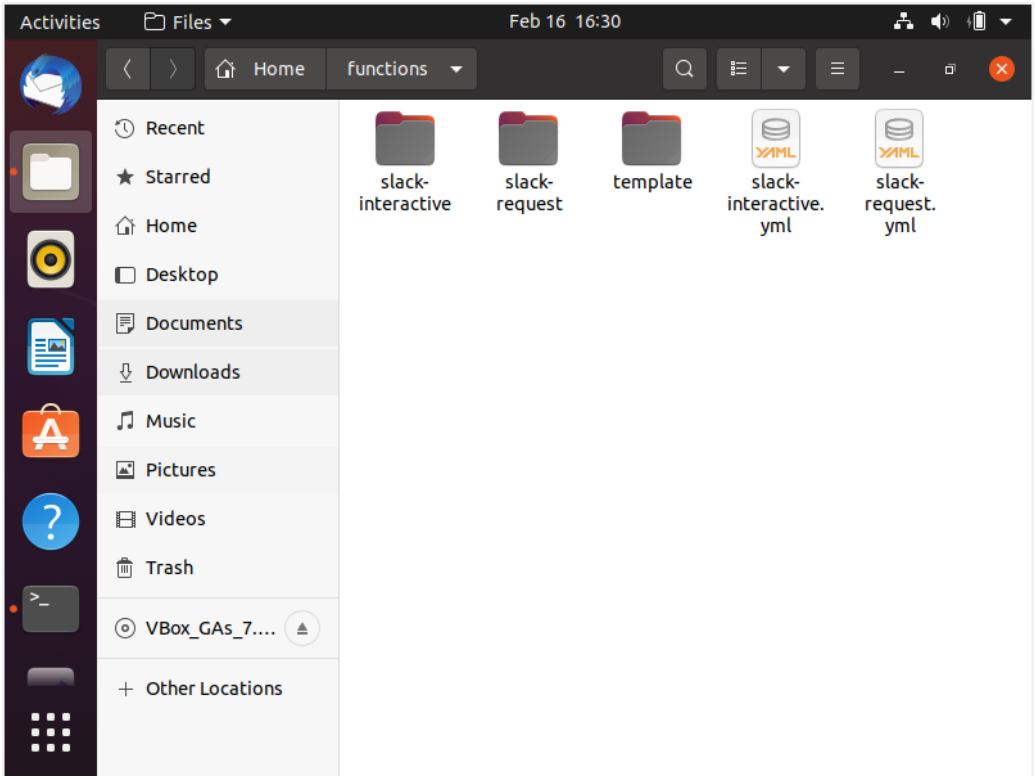
Step 5: Signing up for Docker Hub:



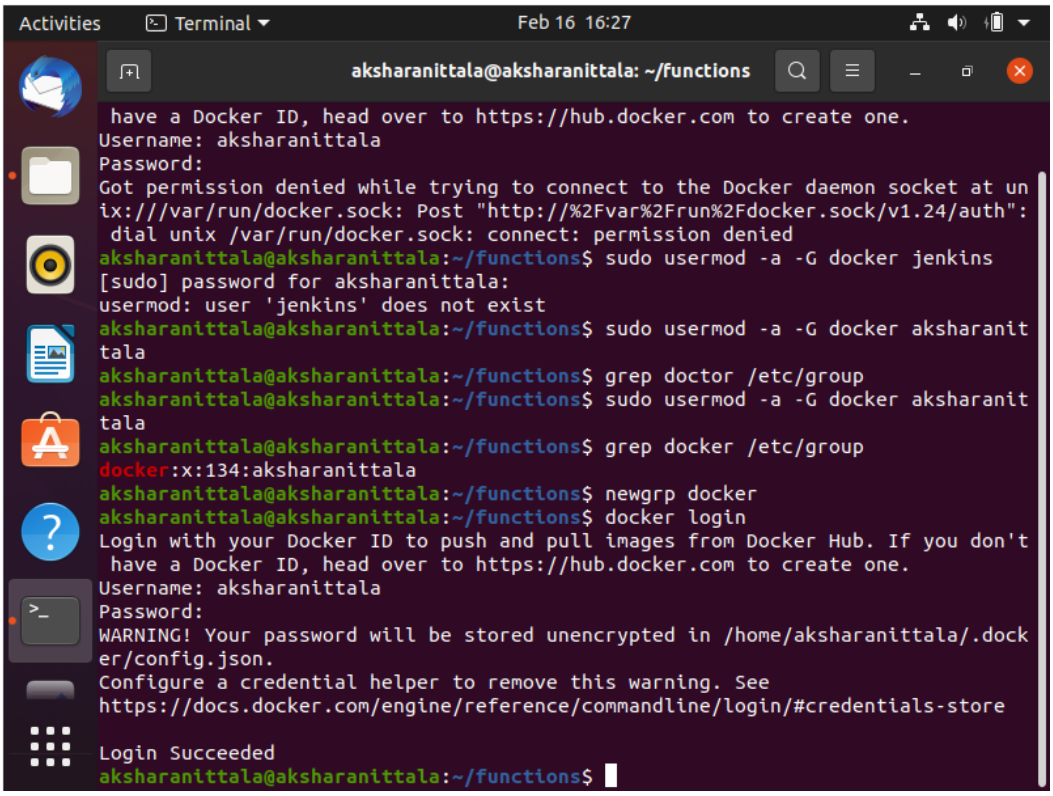
Step 6: Writing your own function





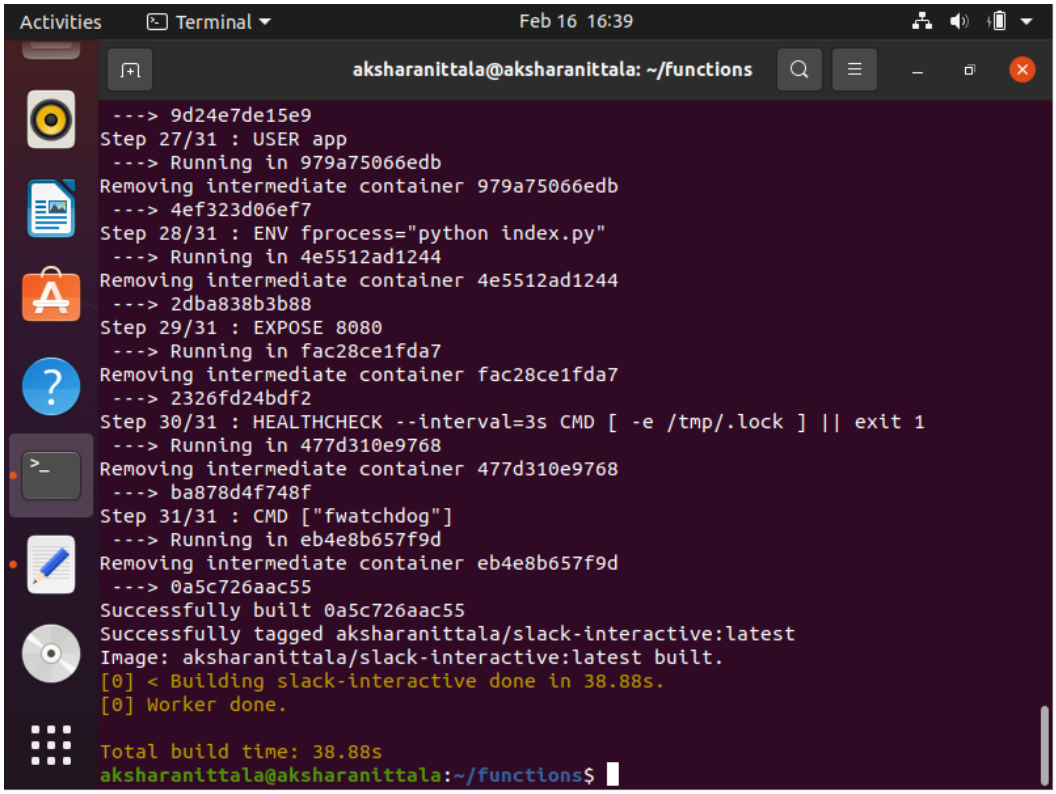


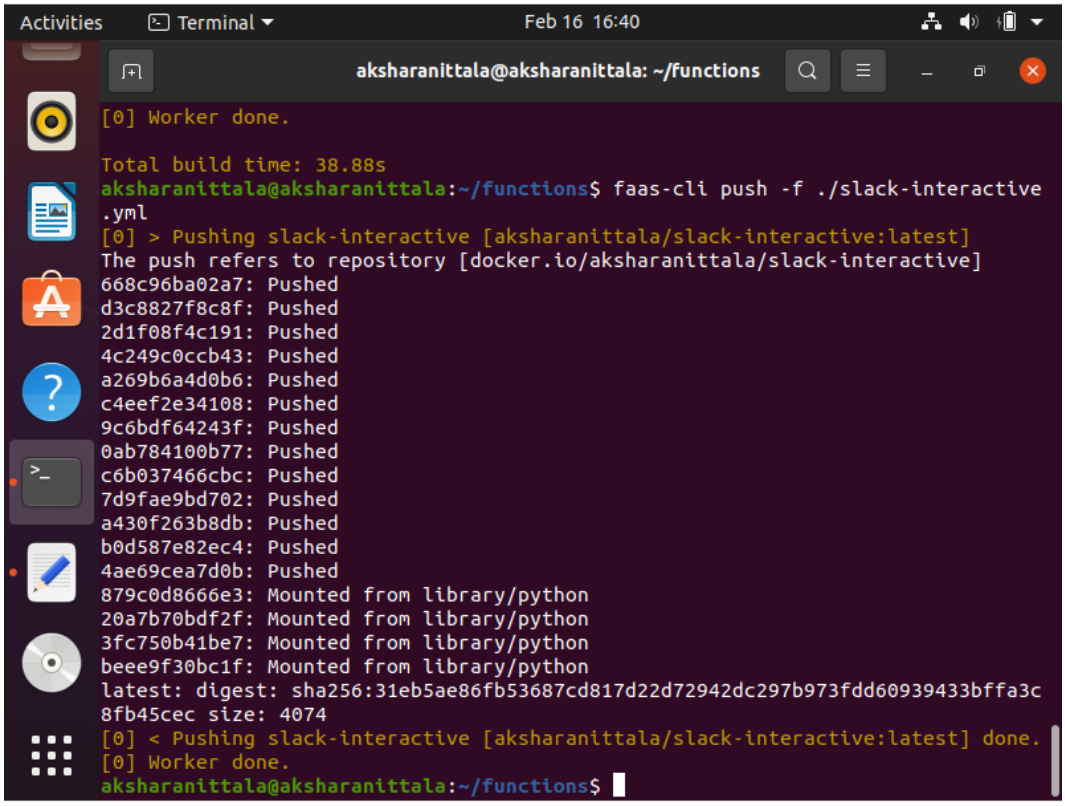
Docker login:

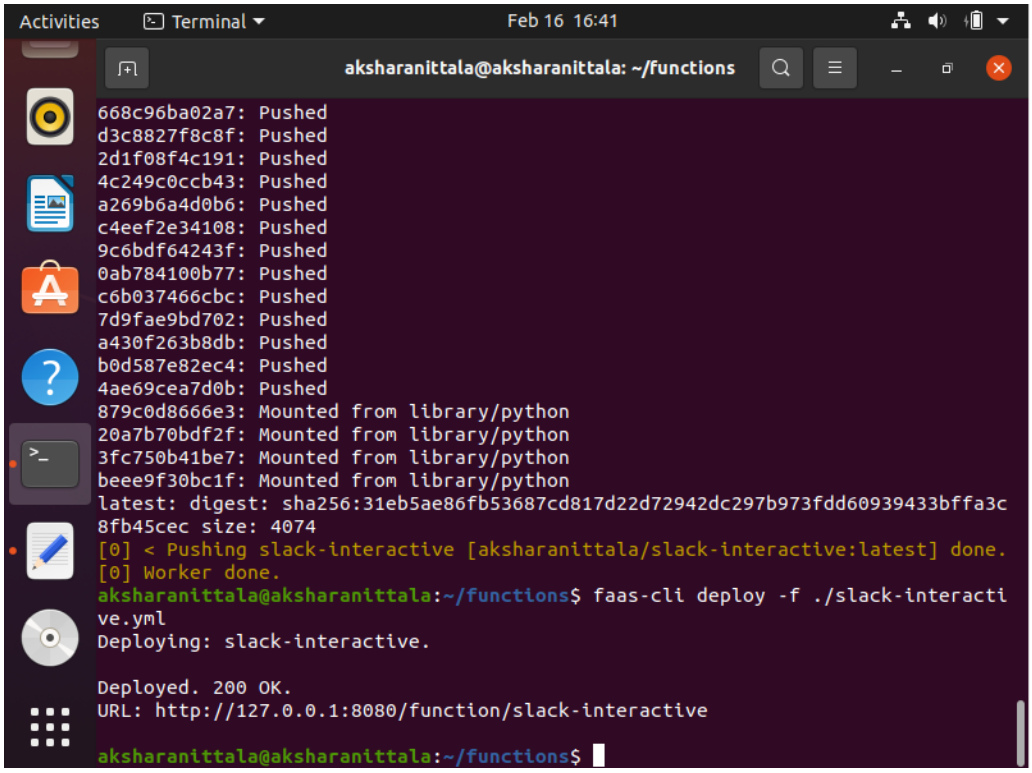


Deploying Slack-interactive and Slack-request functions:

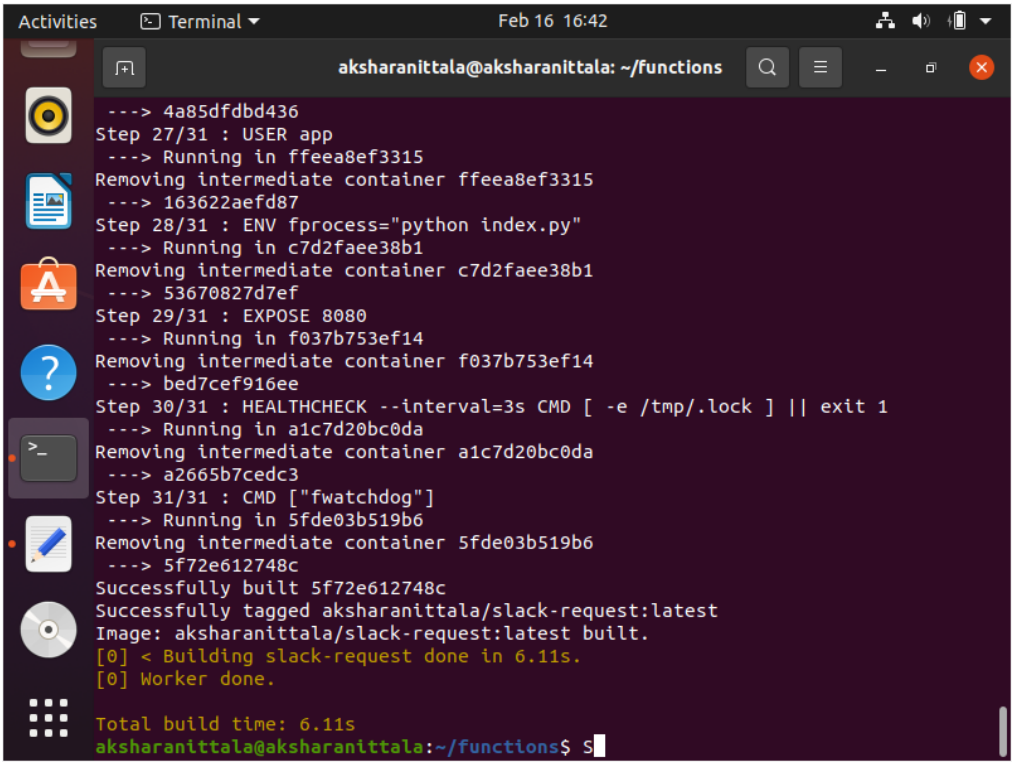
1. Slack-interactive build, push and deploy:

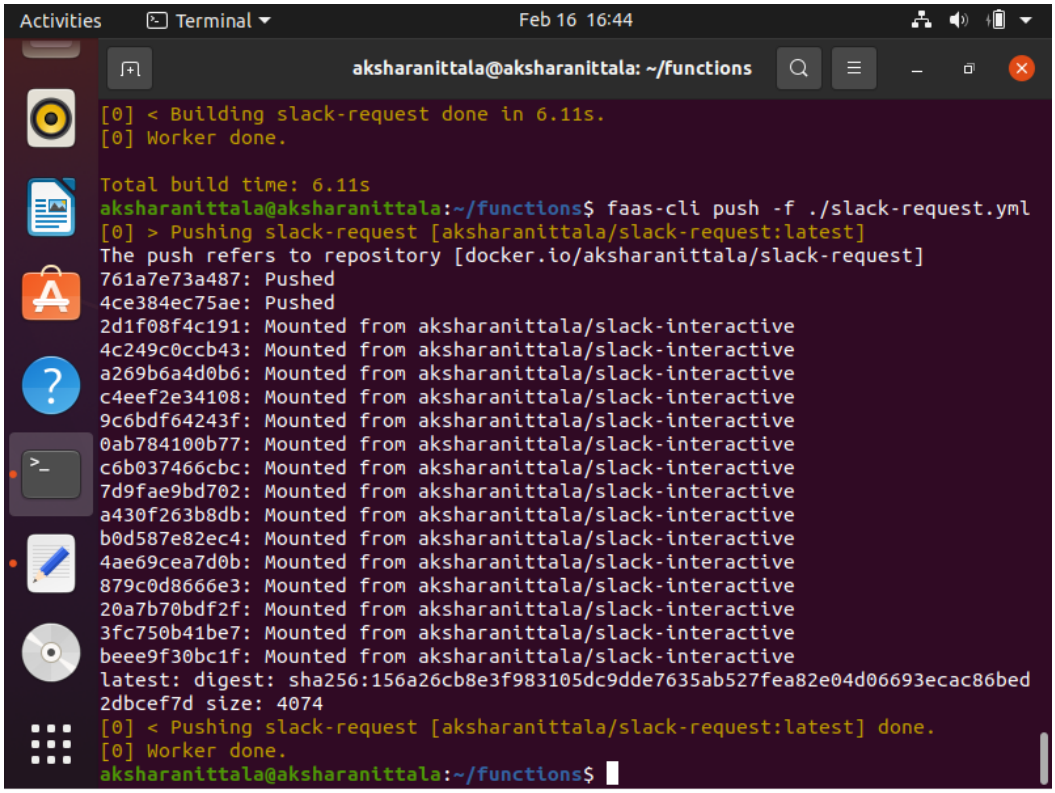


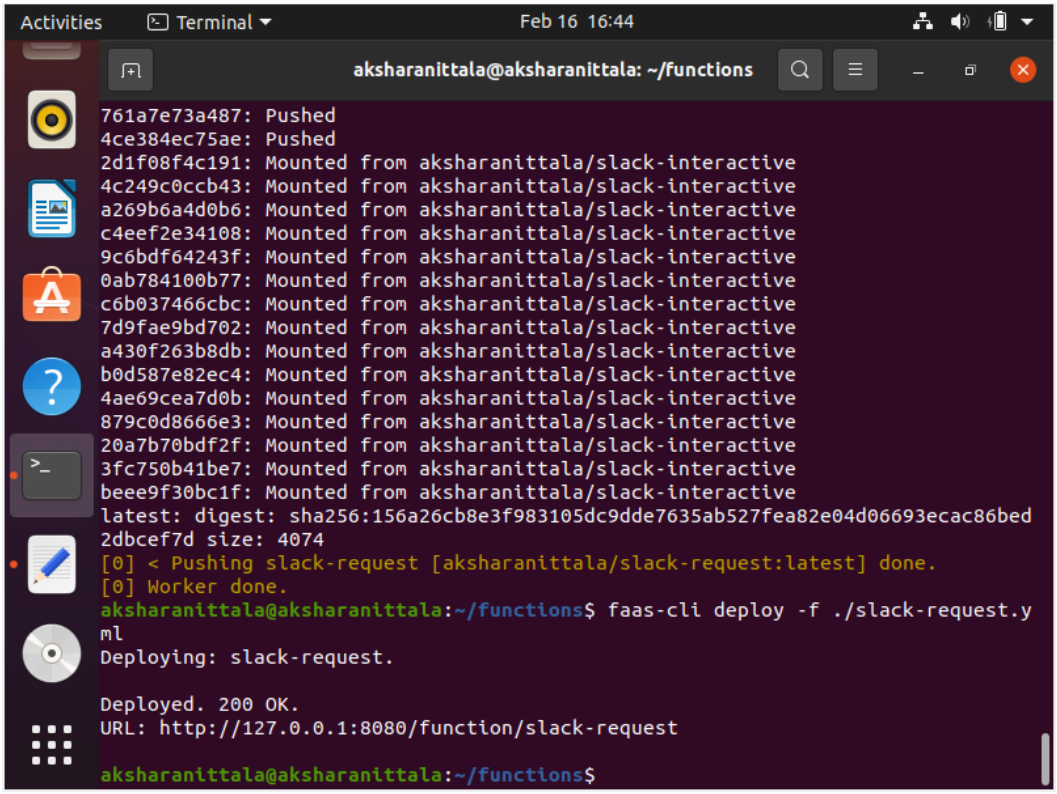




2. Slack-request build, push and deploy:




Activities
Terminal
Feb 16 16:44
aksharanittala@aksharanittala: ~/functions
[0] < Building slack-request done in 6.11s.
[0] Worker done.
Total build time: 6.11s
aksharanittala@aksharanittala:~/functions$ faas-cli push -f ./slack-request.yml
[0] > Pushing slack-request [aksharanittala/slack-request:latest]
The push refers to repository [docker.io/aksharanittala/slack-request]
761a7e73a487: Pushed
4ce384ec75ae: Pushed
2d1f08f4c191: Mounted from aksharanittala/slack-interactive
4c249c0ccb43: Mounted from aksharanittala/slack-interactive
a269b6a4d0b6: Mounted from aksharanittala/slack-interactive
c4eef2e34108: Mounted from aksharanittala/slack-interactive
9c6bdf64243f: Mounted from aksharanittala/slack-interactive
0ab784100b77: Mounted from aksharanittala/slack-interactive
c6b037466cbc: Mounted from aksharanittala/slack-interactive
7d9fae9bd702: Mounted from aksharanittala/slack-interactive
a430f263b8db: Mounted from aksharanittala/slack-interactive
b0d587e82ec4: Mounted from aksharanittala/slack-interactive
4ae69cea7d0b: Mounted from aksharanittala/slack-interactive
879c0d8666e3: Mounted from aksharanittala/slack-interactive
20a7b70bdf2f: Mounted from aksharanittala/slack-interactive
3fc750b41be7: Mounted from aksharanittala/slack-interactive
beee9f30bc1f: Mounted from aksharanittala/slack-interactive
latest: digest: sha256:156a26cb8e3f983105dc9dde7635ab527fea82e04d06693ecac86bed2dbcef7d size: 4074
[0] < Pushing slack-request [aksharanittala/slack-request:latest] done.
[0] Worker done.
aksharanittala@aksharanittala:~/functions$


Activities
Terminal
Feb 16 16:44
aksharanittala@aksharanittala: ~/functions
761a7e73a487: Pushed
4ce384ec75ae: Pushed
2d1f08f4c191: Mounted from aksharanittala/slack-interactive
4c249c0ccb43: Mounted from aksharanittala/slack-interactive
a269b6a4d0b6: Mounted from aksharanittala/slack-interactive
c4eef2e34108: Mounted from aksharanittala/slack-interactive
9c6bdf64243f: Mounted from aksharanittala/slack-interactive
0ab784100b77: Mounted from aksharanittala/slack-interactive
c6b037466cbc: Mounted from aksharanittala/slack-interactive
7d9fae9bd702: Mounted from aksharanittala/slack-interactive
a430f263b8db: Mounted from aksharanittala/slack-interactive
b0d587e82ec4: Mounted from aksharanittala/slack-interactive
4ae69cea7d0b: Mounted from aksharanittala/slack-interactive
879c0d8666e3: Mounted from aksharanittala/slack-interactive
20a7b70bdf2f: Mounted from aksharanittala/slack-interactive
3fc750b41be7: Mounted from aksharanittala/slack-interactive
beee9f30bc1f: Mounted from aksharanittala/slack-interactive
latest: digest: sha256:156a26cb8e3f983105dc9dde7635ab527fea82e04d06693ecac86bed2dbcef7d size: 4074
[0] < Pushing slack-request [aksharanittala/slack-request:latest] done.
[0] Worker done.
aksharanittala@aksharanittala:~/functions$ faas-cli deploy -f ./slack-request.yml
Deploying: slack-request.
Deployed. 200 OK.
URL: http://127.0.0.1:8080/function/slack-request
aksharanittala@aksharanittala:~/functions$