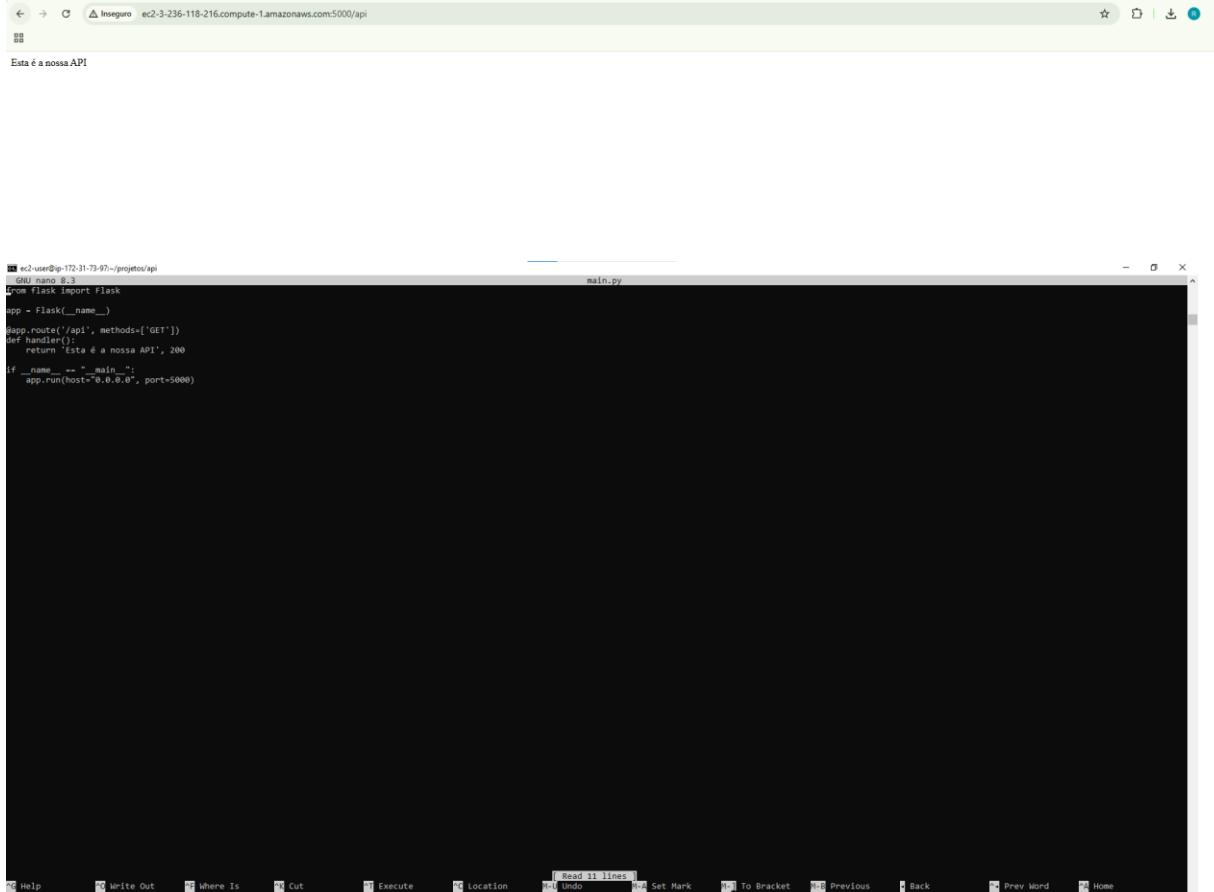


Prática 07 - Cloud AWS - Docker

Resultado:



The screenshot shows a terminal window titled "main.py" with the following content:

```
ec2-user@ip-172-31-73-97:~/projetos/api
GNU nano 8.3
from flask import Flask
app = Flask(__name__)
@app.route('/api1', methods=['GET'])
def handler():
    return 'Esta é a nossa API', 200
if __name__ == "__main__":
    app.run(host="0.0.0.0", port=5000)
```

Below the terminal window, a browser window is open at the URL `ec2-3-236-118-216.compute-1.amazonaws.com:5000/api`. The page displays the message "Esta é a nossa API".

```
cd user@ip-172-31-73-97:~/projetos/api
GNU nano 8.3
click==1.8
click-diff==0.16
Flask==1.1
gunicorn==23.0.0
importlib_metadata==3.7.0
itsdangerous==2.0.1
lxml==4.6.3
lockfile==0.12.2
marshmallow==3.0.0
pycparser==1.7.1
python-daemon==2.3.0
werkzeug==2.3.0
zipp==3.13.0
requirements.txt
```

The screenshot shows a terminal window titled "requirements.txt". The window contains a list of Python package dependencies and their versions. At the bottom of the window, there is a toolbar with various icons corresponding to common file operations like Help, Exit, Read File, Write Out, Replace, Cut, Paste, Execute, Justify, Location, Go To Line, Undo, Redo, Set Mark, To Bracket, Where Was, Previous, Next, Back, Forward, Prev Word, Next Word, Home, and End.

Prompt

```

Amazon Linux 2023
https://aws.amazon.com/linux/amazon-linux-2023

[ec2-user@ip-172-31-73-97 ~]$ sudo yum install -y docker
Amazon Linux 2023 Kernel Livepatch repository
Dependencies resolved.
Transaction Summary
Install 11 Packages

Total download size: 74 M
Installed size: 280 M
(1/11): container-selinux-2.242.0-1.amzn2023.noarch.rpm           1.0 MB/s | 58 kB   00:00
(2/11): iptables-libs-1.8.8-3.amzn2023.0.2.x86_64.rpm          9.9 MB/s | 403 kB   00:00
(3/11): libcurl-libs-8.1.0-1.amzn2023.0.2.x86_64.rpm          2.8 MB/s | 100 kB   00:00
(4/11): libgroup-3.0-1.amzn2023.0.1.x86_64.rpm                2.4 MB/s | 75 kB   00:00
(5/11): libnftfilter_contrack-1.0-19.amzn2023.0.2.x86_64.rpm    2.3 MB/s | 58 kB   00:00
(6/11): libnftnetlink-1.0-19.amzn2023.0.2.x86_64.rpm          1.2 MB/s | 39 kB   00:00
(7/11): libnftnl-1.0-19.amzn2023.0.2.x86_64.rpm              2.7 MB/s | 100 kB   00:00
(8/11): containerd-2.1.4-1.amzn2023.0.2.x86_64.rpm            65 MB/s | 23 MB   00:00
(9/11): pigz-2.5-1.amzn2023.0.3.x86_64.rpm                  704 kB/s | 83 kB   00:00

```

```
[ec2-user@ip-172-31-73-97 ~]$ pip install flask
Transaction Summary
=====
Total download size: 1.9 M
Installed size: 11 M
Is this ok [y/N]: y
Collecting flask
  Downloading flask-3.1.2-py3-none-any.whl (103 kB)
Collecting MarkupSafe==2.2.0
  Downloading MarkupSafe-2.2.0-py3-none-any.whl (16 kB)
Collecting Werkzeug<3.1.0,>=3.0.1
  Downloading werkzeug-3.0.1-py3-none-any.whl (27 kB)
Collecting Jinja2<3.1.2
  Downloading Jinja2-3.1.0-py3-none-any.whl (134 kB)
Collecting Click<8.1.3,>=8.0.0
  Downloading click-8.1.0-py3-none-any.whl (98 kB)
Collecting itsdangerous<2.2.0
  Downloading itsdangerous-2.2.0-py3-none-any.whl (16 kB)
Collecting zipp<3.23.0,>=3.19
  Downloading zipp-3.23.0-py3-none-any.whl (10 kB)
Installing collected packages: flask, MarkupSafe, werkzeug, Jinja2, itsdangerous, importlib-metadata, click, blinker, Flask
  Attempting uninstall: MarkupSafe
  Successfully uninstalled MarkupSafe-2.2.0
  Uninstalling MarkupSafe-1.1.1:
    Successfully uninstalled MarkupSafe-1.1.1
    Attempting to install: MarkupSafe-2.2.0
      Preparing to install: Jinja2-2.11.3
      Uninstalling Jinja2-2.11.3:
        Successfully uninstalled Jinja2-2.11.3
Successfully installed flask-3.1.2 importlib-metadata-3.0.3 Jinja2-3.1.0 MarkupSafe-2.2.0 Werkzeug-3.1.3 zipp-3.23.0
WARNING: Running pip as the 'root' user can result in broken permissions and conflicting behaviour with the system package manager. It is recommended to use a virtual environment instead: https://pip.pypa.io/warnings/venv
[ec2-user@ip-172-31-73-97 ~]$ sudo pip3 install gunicorn
Collecting gunicorn
```

```
ec2-user@ip-172-31-73-97:~/projetos/api
```

```
downloading unicorn==23.0.0-py3-none-any.whl (85 kB)
   85 kB 5.5 MB/s
Collecting packaging
  Downloading packaging-25.0-py3-none-any.whl (66 kB)
     66 kB 1.0 MB/s
Installing collected packages: packaging, unicorn
Successfully installed unicorn==23.0.0 packaging==25.0
WARNING: Running pip as the 'root' user can result in broken permissions and conflicting behaviour with the system package manager. It is recommended to use a virtual environment instead: https://pip.pypa.io/warnings/venv
ec2-user@ip-172-31-73-97:~/projetos$ ls
api.py dockerfile requirements.txt
ec2-user@ip-172-31-73-97:~/projetos$ pip3 install unicorn
Requirement already satisfied: unicorn in /usr/local/lib/python3.9/site-packages (23.0.0)
WARNING: Running pip as the 'root' user can result in broken permissions and conflicting behaviour with the system package manager. It is recommended to use a virtual environment instead: https://pip.pypa.io/warnings/venv
ec2-user@ip-172-31-73-97:~/projetos$ ls
api.py dockerfile requirements.txt
ec2-user@ip-172-31-73-97:~/projetos$ cd api
ec2-user@ip-172-31-73-97:~/projetos$ nano main.py
ec2-user@ip-172-31-73-97:~/projetos$ apil nano main.py
ec2-user@ip-172-31-73-97:~/projetos$ apil [ec2-user@ip-172-31-73-97 apil]$ sudo pip3 freeze > requirements.txt
ec2-user@ip-172-31-73-97:~/projetos$ bash requirements.txt: command not found
bash: requirements.txt: command not found
ec2-user@ip-172-31-73-97:~/projetos$ nano requirements.txt
ec2-user@ip-172-31-73-97:~/projetos$ apil requirements.txt
ec2-user@ip-172-31-73-97:~/projetos$ apil [ec2-user@ip-172-31-73-97 apil]$ sudo docker build --tag my-api
ec2-user@ip-172-31-73-97:~/projetos$ apil [ec2-user@ip-172-31-73-97 apil]$ sudo docker build --tag my-api
ERROR: "docker buildx build" requires exactly 1 argument.
See 'docker buildx build --help'.
```

```
Usage: docker buildx build [OPTIONS] PATH | URL | -
```

```
Start a build
```

```
ec2-user@ip-172-31-73-97:~/projetos$ apil $ sudo docker run --name main -p 5000:5000 my-api
unable to find image "my-api:latest": locally
docker: Error response from daemon: pull access denied for my-api, repository does not exist or may require 'docker login': denied: requested access to the resource is denied.
See 'docker run --help'.
[ec2-user@ip-172-31-73-97:~/projetos$ apil $ sudo docker run --name main -p 5000:5000 cloud_docker
unable to find image "cloud_docker": locally
docker: Error response from daemon: pull access denied for cloud_docker, repository does not exist or may require 'docker login': denied: requested access to the resource is denied.
See 'docker run --help'.
[ec2-user@ip-172-31-73-97:~/projetos$ apil $ sudo docker run --name main -p 5000:5000 cloud_docker
unable to find image "cloud_docker": locally
docker: Error response from daemon: pull access denied for cloud_docker, repository does not exist or may require 'docker login': denied: requested access to the resource is denied.
See 'docker run --help'.
[ec2-user@ip-172-31-73-97:~/projetos$ apil $ sudo docker build --tag my-api
ERROR: "docker build" requires exactly 1 argument.
See 'docker buildx build --help'.
```

```
Usage: docker buildx build [OPTIONS] PATH | URL | -
```

```
Start a build
```

```
ec2-user@ip-172-31-73-97:~/projetos$ apil $ sudo docker run --name main -p 5000:5000 my-api
unable to find image "my-api:latest": locally
docker: Error response from daemon: pull access denied for my-api, repository does not exist or may require 'docker login': denied: requested access to the resource is denied.
See 'docker run --help'.
[ec2-user@ip-172-31-73-97:~/projetos$ apil $ sudo docker buildx build --tag my-api .
[ec2-user@ip-172-31-73-97:~/projetos$ apil $ FINISHED
[ec2-user@ip-172-31-73-97:~/projetos$ apil $ [internal] load build definition from dockerfile
->>> transferring dockerfile: 2570
[ec2-user@ip-172-31-73-97:~/projetos$ apil $ [internal] load metadata for docker.io/library/python3
```



```
[ec2-user@ip-172-31-73-97 ~]$ python3 wsgi.py
[2023-11-27 01:28:09 +0000] [0] [ERROR] Exception in worker process
Traceback (most recent call last):
  file "/usr/local/lib/python3.14/site-packages/gunicorn/arbiter.py", line 608, in spawn_worker
    worker.init_process()
  file "/usr/local/lib/python3.14/site-packages/gunicorn/workers/base.py", line 135, in init_process
    self.load_wsgi()
  file "/usr/local/lib/python3.14/site-packages/gunicorn/workers/base.py", line 147, in load_wsgi
    self.wsgi = self.app.wsgi()
  file "/usr/local/lib/python3.14/site-packages/gunicorn/app/base.py", line 66, in wsgi
    selfcallable = self.load()
  file "/usr/local/lib/python3.14/site-packages/gunicorn/app/wsgiapp.py", line 57, in load
    return self.load_wsgiapp()
  file "/usr/local/lib/python3.14/site-packages/gunicorn/app/wsgiapp.py", line 47, in load_wsgiapp
    return util.import_app(self.app_uri)
  file "/usr/local/lib/python3.14/site-packages/gunicorn/util.py", line 378, in import_app
    mod = importlib.import_module(module)
  file "/usr/local/lib/python3.14/importlib/_bootstrap.py", line 88, in import_module
    return _bootstrap._gcd_import(name[level:], package, level)
  file "/frozen importlib/_bootstrap.py", line 199, in _gcd_import
    _find_and_load_unlocked(spec)
  file "/frozen importlib/_bootstrap.py", line 1342, in _find_and_load_unlocked
    _find_and_load_unlocked(spec)
  file "/frozen importlib/_bootstrap.py", line 938, in _load_unlocked
    _call_with_frames_removed(f, *args, **kwargs)
  file "/frozen importlib/_bootstrap_external.py", line 866, in _load_unlocked
    _call_with_frames_removed(f, *args, **kwargs)
  file "/frozen importlib/_bootstrap_external.py", line 826, in source_to_code
    file = f.read()
  file "/frozen importlib/_bootstrap_external.py", line 491, in _call_with_frames_removed
    code = self._get_code_from_file(file)
    return 'Esta é a nossa API', 200
  ...
```
IndentationError: expected an indented block after function definition on line 4
[2023-11-27 01:28:09 +0000] [0] [INFO] Worker exiting (pid: 9)
[2023-11-27 01:28:09 +0000] [7] [ERROR] Worker (pid:9) exited with code 3
[2023-11-27 01:28:10 +0000] [7] [INFO] Worker exiting (pid: 7)
[2023-11-27 01:28:10 +0000] [7] [ERROR] Starting new: Master
[2023-11-27 01:28:10 +0000] [7] [ERROR] Reason: Worker failed to boot.
+:] Building: 0.0s (7/7)
+:] Building: 0.0s (7/7) FINISHED
+:] [internal] load build definition from dockerfile
+:] >>> transferring dockerfile: 257B
+:] >>> https://registry.docker.io/library/python:3
+:] >>> [internal] load .dockercfgignore
+:] >>> transferring context: 2B
+:] >>> https://registry.docker.io/library/python:3
+:] >>> transferring context: 488B
+:] CACHED [/4] FROM https://registry.docker.io/library/python:3@sha256:ed6433343f65f479798580eaesa080eadaaee11c4bc0200fcfa2 0.0s
+:] [2/4] COPY . /app
+:] >>> https://registry.docker.io/library/python:3
+:] >>> [4/4] RUN pip install --no-cache-dir -r requirements.txt
+:] >>> exporting to image
+:] >>> https://registry.docker.io/library/python:3
+:] >>> writing sha256:35bf8a44d0bf0f6c7fb1db84fe017db4241a85710bae080be33445de7564c6da
+:] >>> naming to docker.io/library/python:3
+:] >>> https://registry.docker.io/library/python:3
+:] >>> run -d --name main-p 5000:5000 my-api
+:] my-api@ip-172-31-73-97:~$ curl http://localhost:5000/api
+:] my-api@ip-172-31-73-97:~$ curl http://localhost:5000/api
+:] my-api@ip-172-31-73-97:~$
```