LAPORAN PRAKTIKUM

TEKNOLOGI CLOUD

Pertemuan Ke-3

DISUSUN OLEH :

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Nama : Isna Budiarti Utami

Prodi : Sistem Informasi

UNIVERSITAS TEKNOLOGI DIGITAL INDONESIA

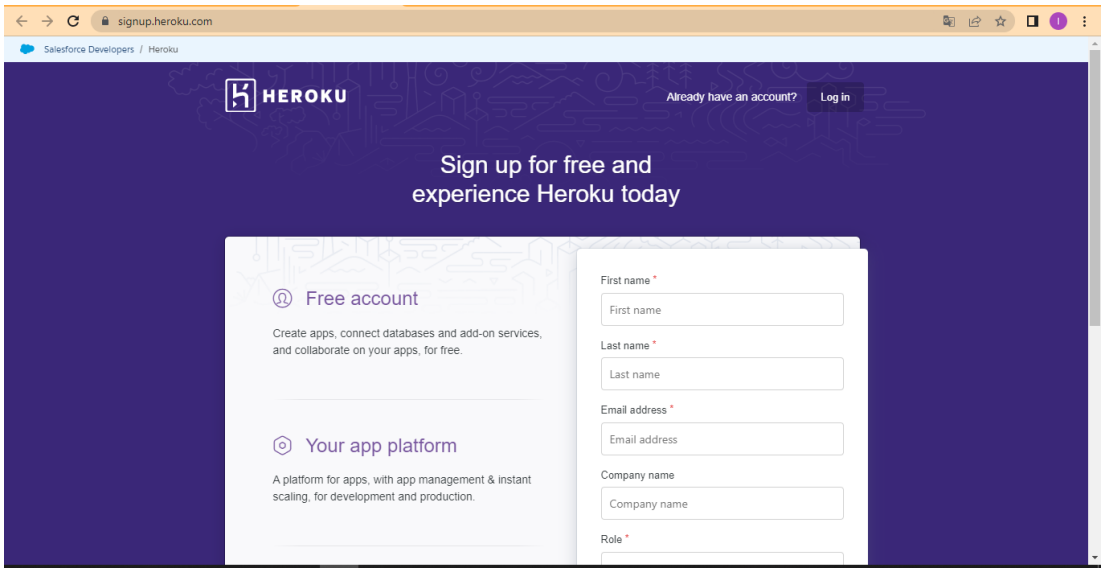
2021/2022

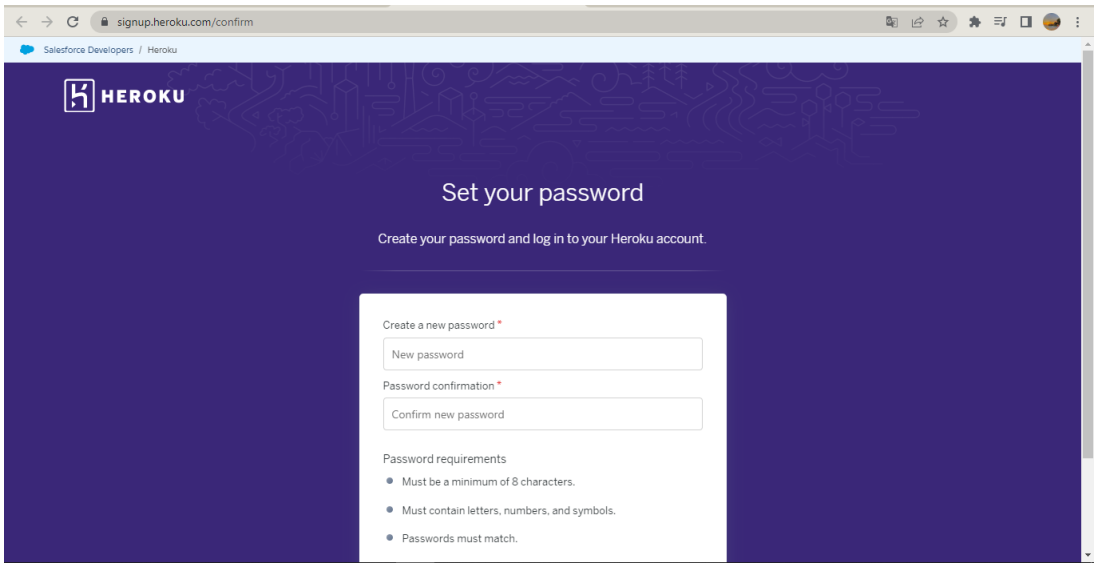
BAB I

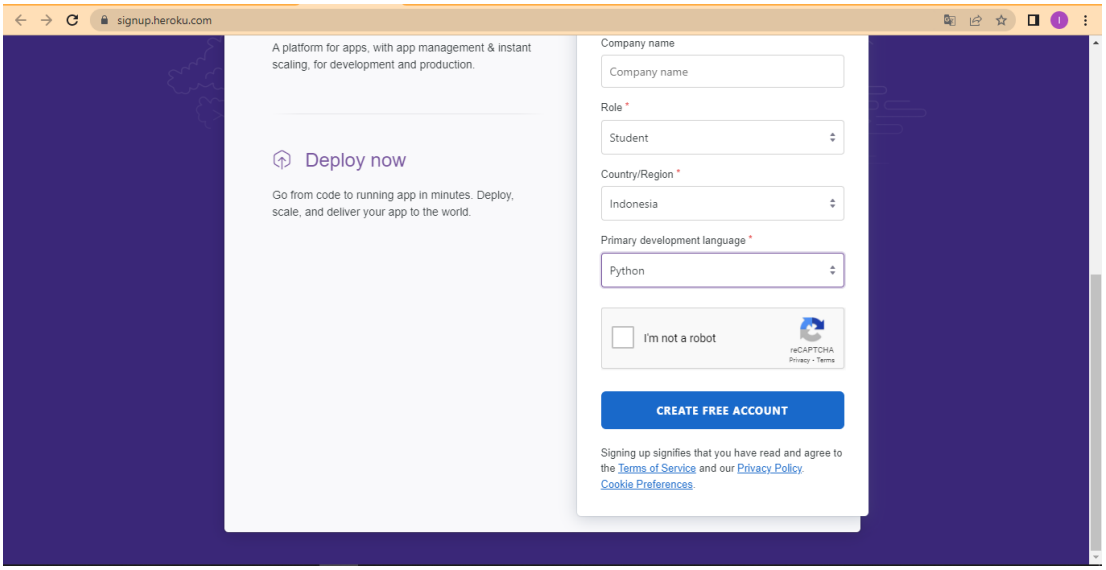
PEMBAHASAN LATIHAN

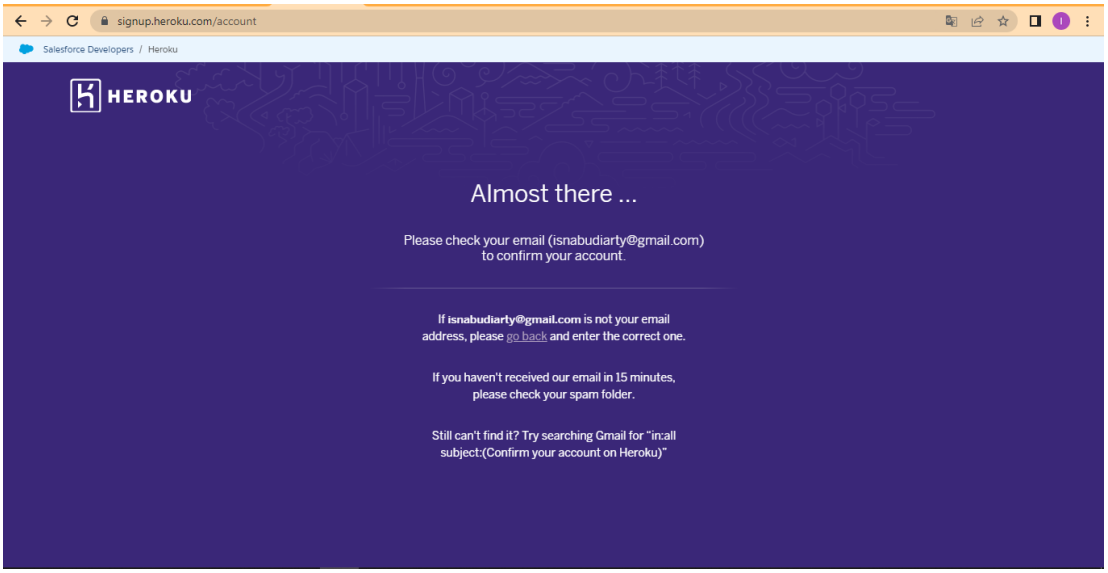
Latihan

1. Signup ke Heroku

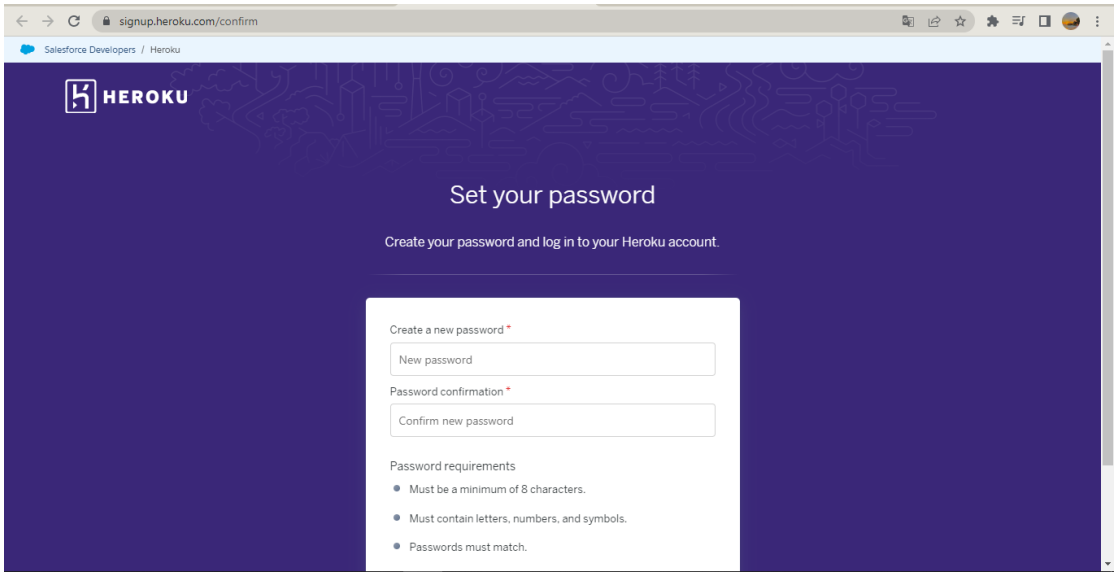




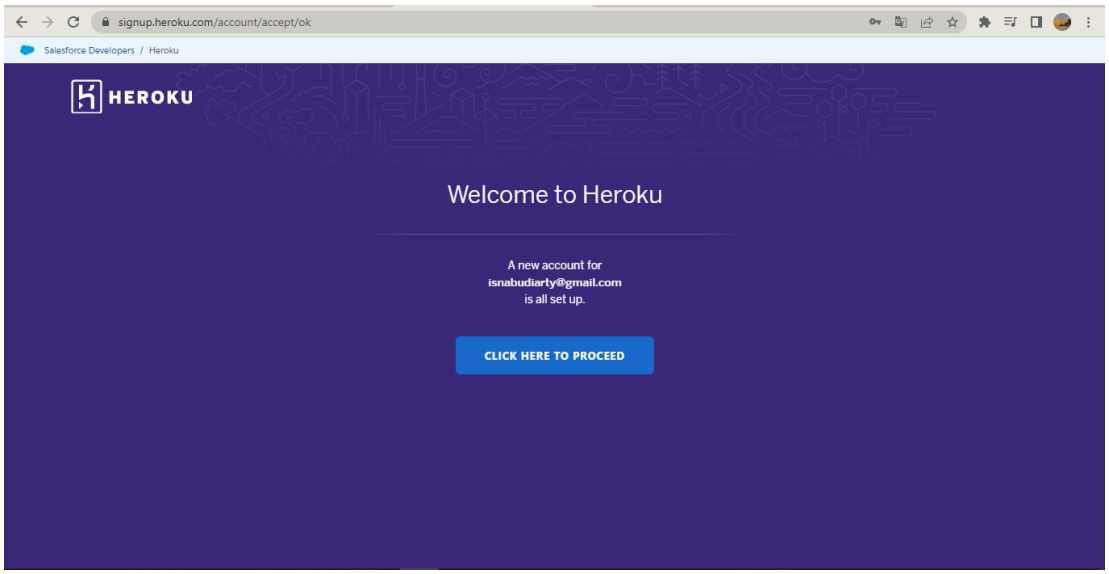

signup.heroku.com
A platform for apps, with app management & instant scaling, for development and production.
Deploy now
Go from code to running app in minutes. Deploy, scale, and deliver your app to the world.
Company name
Company name
Role *
Student
Country/Region *
Indonesia
Primary development language *
Python
I'm not a robot
reCAPTCHA
Privacy - Terms
CREATE FREE ACCOUNT
Signing up signifies that you have read and agree to the Terms of Service and our Privacy Policy.
Cookie Preferences.


signup.heroku.com/account
Salesforce Developers / Heroku
HEROKU
Almost there ...
Please check your email (isnabudiarty@gmail.com) to confirm your account.
If isnabudiarty@gmail.com is not your email address, please go back and enter the correct one.
If you haven't received our email in 15 minutes, please check your spam folder.
Still can't find it? Try searching Gmail for "in:all subject:(Confirm your account on Heroku)"

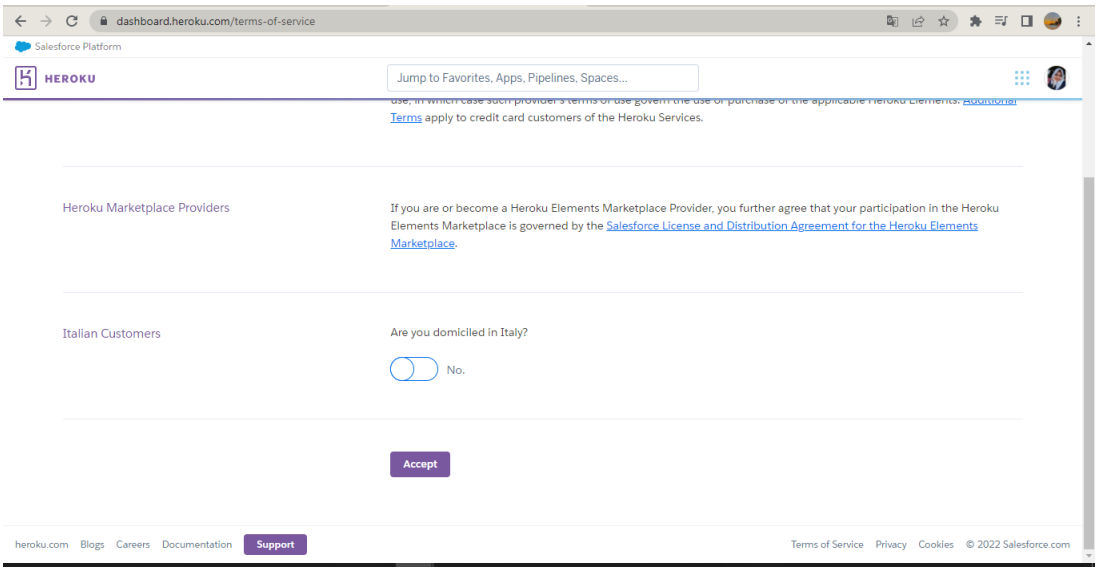
Setelah melakukan verifikasi melalui email, kemudian kita akan diarahkan ke halaman baru untuk mengeset password akun kita.



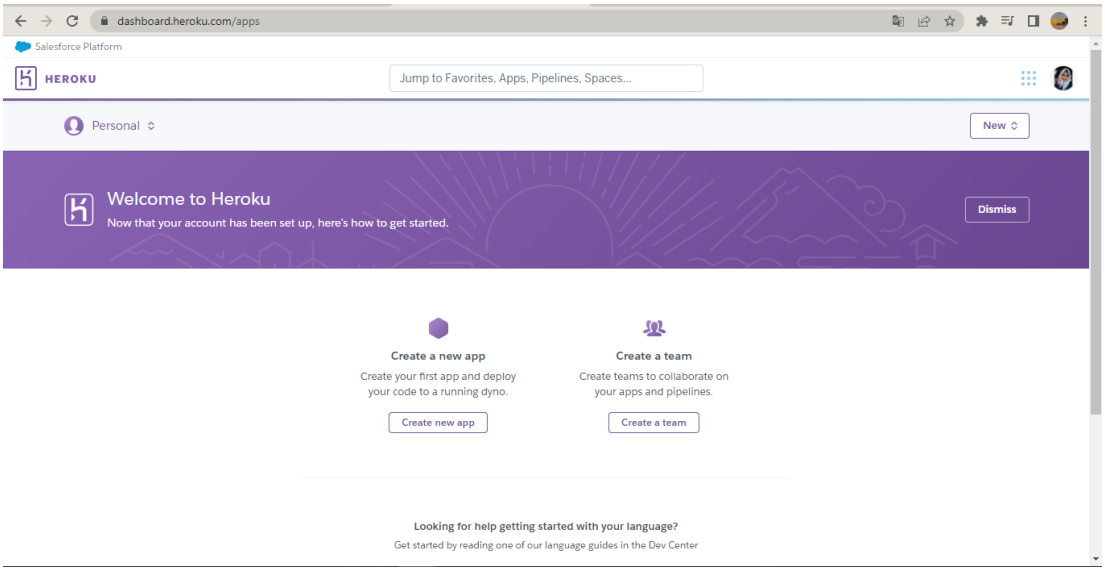
Setelah itu kita klik tombol “CLICK HERE TO PROCEED”



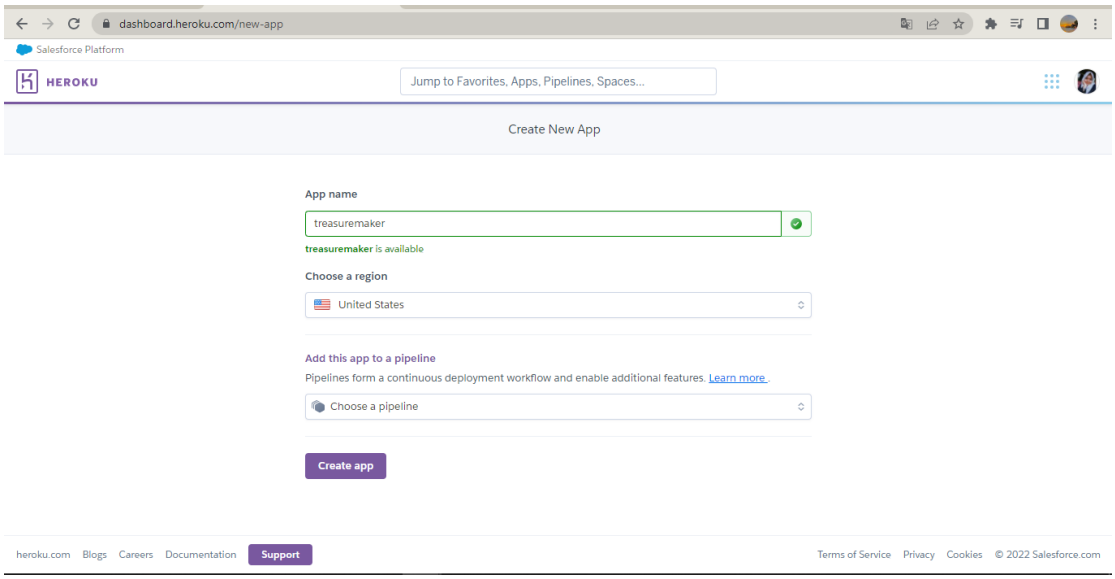
Kemudian kita akan diarahkan ke bagian terms of service untuk mengetahui syarat kan ketentuan yang berlaku. Jika kita tidak berdomisili di Italia maka kita biarkan saja untuk bagian pertanyaan “Are you domiciled in Italy?”



Setelah kita Accept, maka akan tampil halaman awal dari Heroku. Di halaman tersebut kita bisa membuat app baru maupun membuat team.

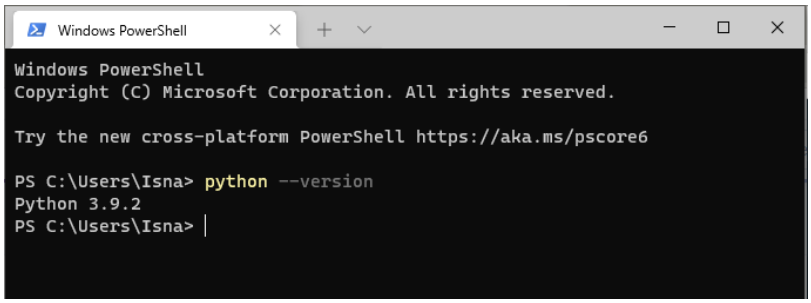


2. Buat aplikasi baru melalui dashboard



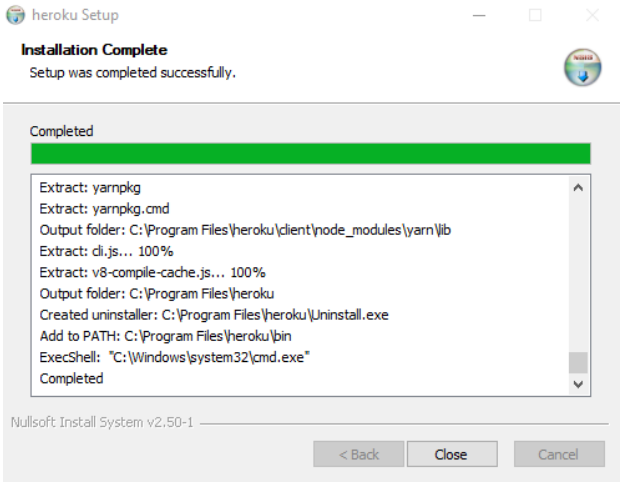
3. Install Python (dan PostgreSQL jika diperlukan)

   Untuk mengecek versi Python yang ada dalam komputer lokal sekaligus mengecek apakah Python sudah terinstall atau belum, dengan menggunakan perintah python –version pada CMD atau PowerShell.

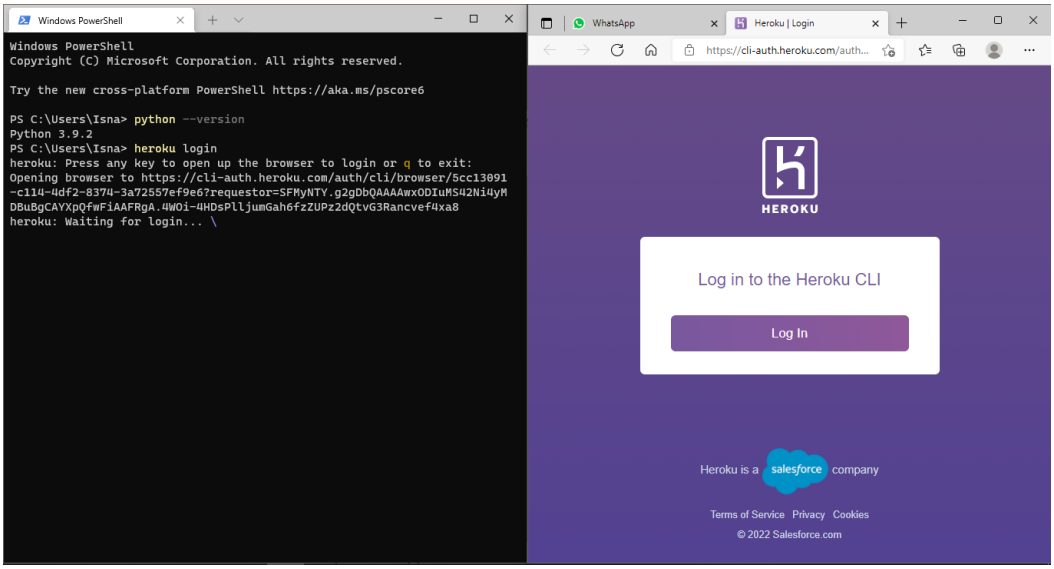


   Disini untuk versi Python yang digunakan yaitu Python 3.9.2

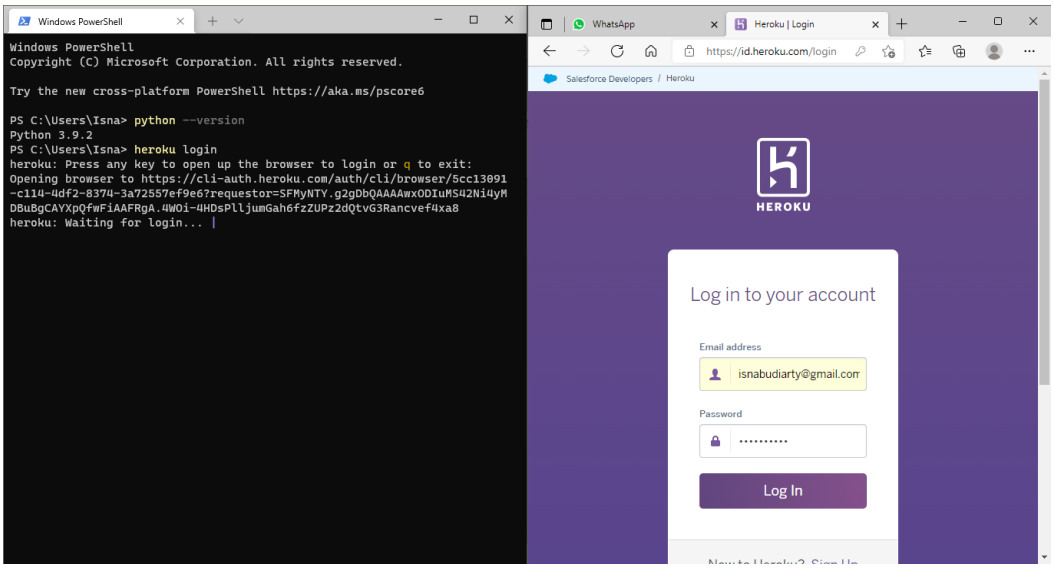
4. Kerjakan Getting Started on Heroku with Python, tidak perlu mengerjakan heruku pg:psql jika tidak ada PostgreSQL di lokal.
   a. Mempersiapkan dengan mengunduh dan menginstall Heroku CLI



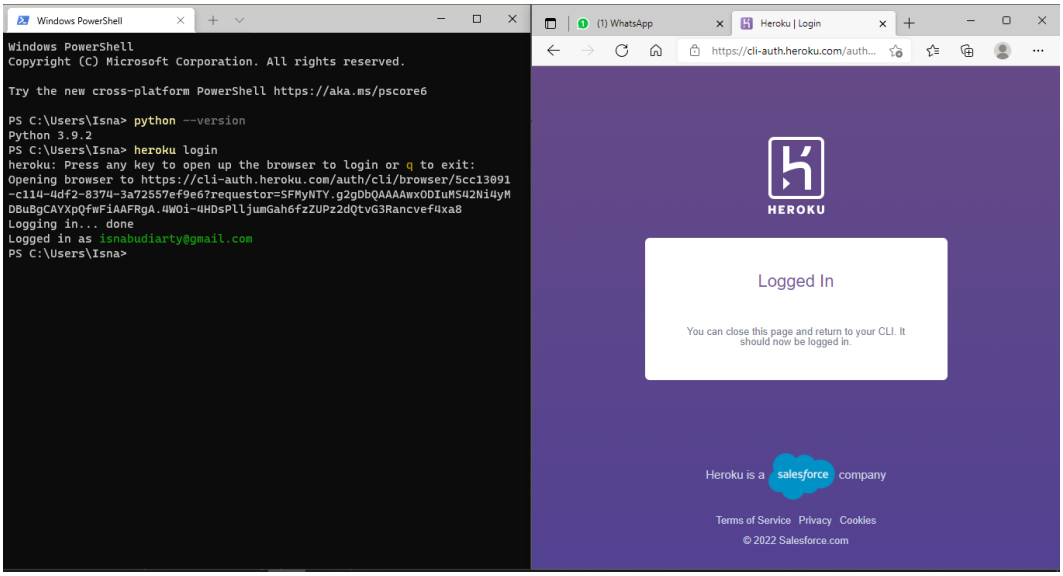
   b. Membuka browser ke halaman login Heroku, kemudian klik Log in



Setelah itu, kita dapat melakukan log in dengan mengisi email serta password kita.



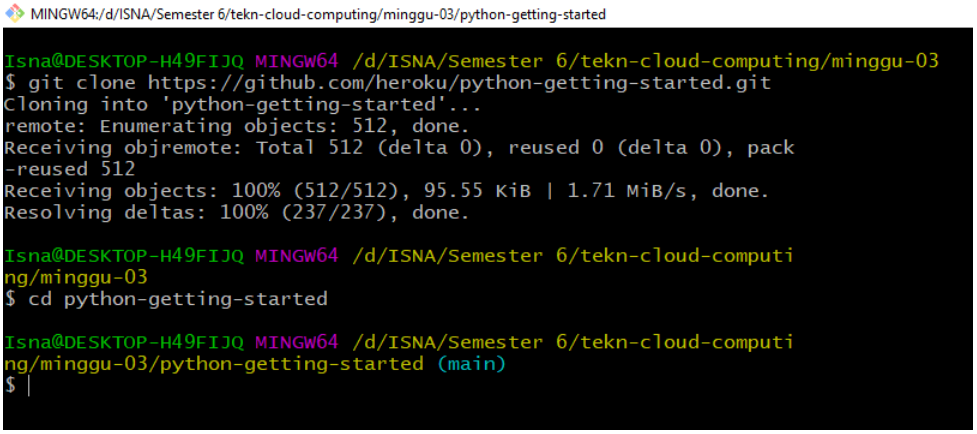
Setelah itu, klik Log in, maka tampilannya akan menjadi seperti berikut.



c. Menyiapkan aplikasi

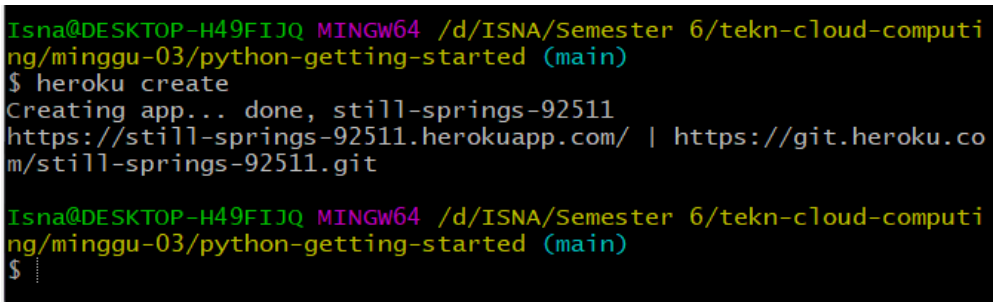
Memastikan Git sudah terinstal

Mengkloning aplikasi

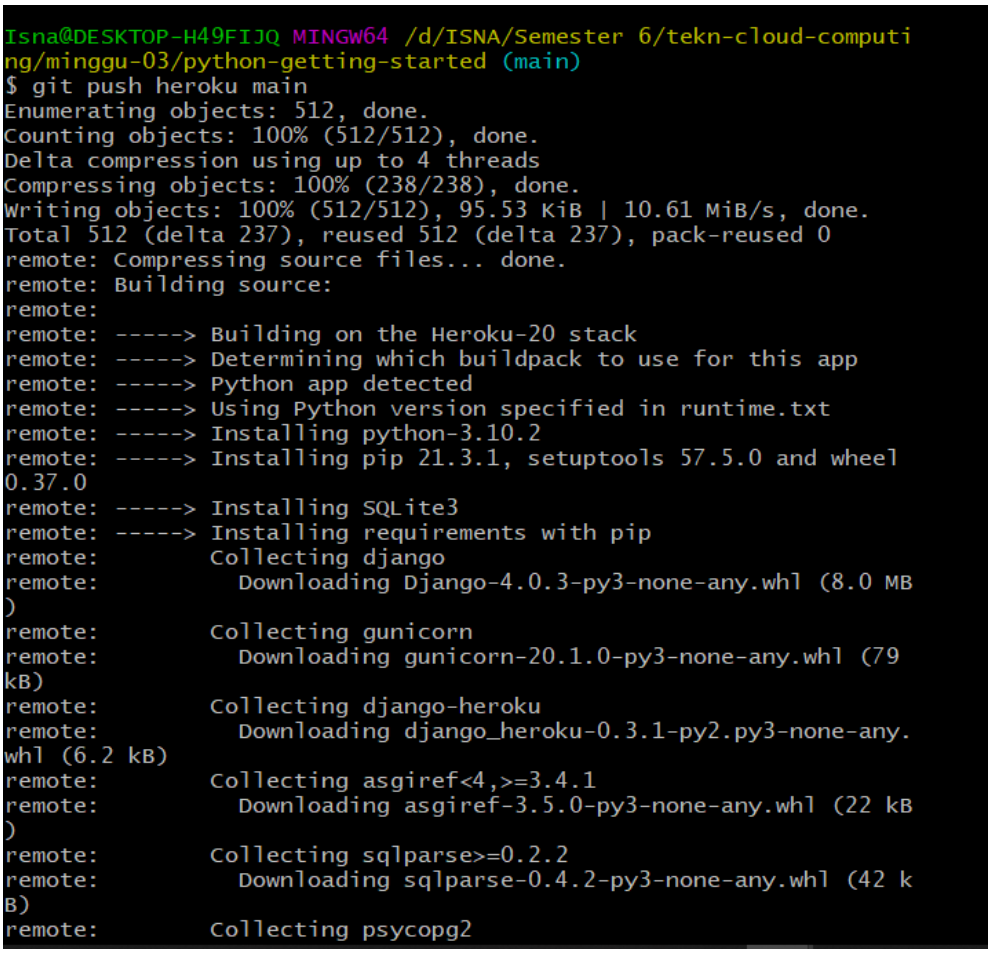


Kini saya sudah memiliki repositori git yang berisi aplikasi sederhana.

d. Menerapkan aplikasi



Push Heroku main



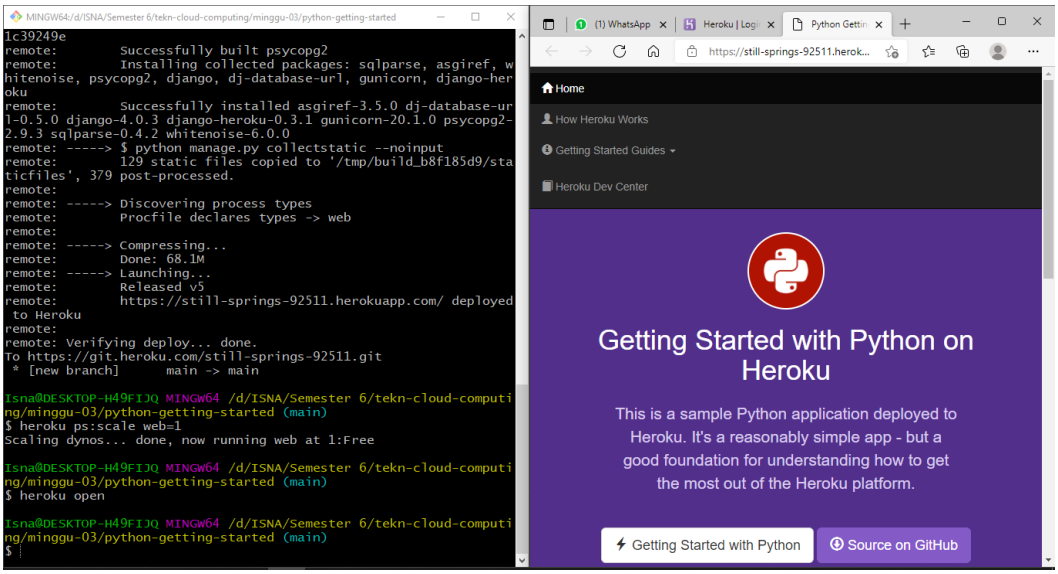
```
 kB)
remote:        Building wheels for collected packages: psycopg2
remote:          Building wheel for psycopg2 (setup.py): started
remote:          Building wheel for psycopg2 (setup.py): finished
with status 'done'
remote:          Created wheel for psycopg2: filename=psycopg2-2.9
.3-cp310-cp310-linux_x86_64.whl size=586545 sha256=36b583513b3138e
e2071a25847591a2c0a29f45b260c3eccaba60d0276a7a59d
remote:          Stored in directory: /tmp/pip-ephem-wheel-cache-f
nfjnwjz/wheels/81/b6/3d/091aad3e8919ea76c84c2674b02ce3ab52de882e09
1c39249e
remote:        Successfully built psycopg2
remote:        Installing collected packages: sqlparse, asgiref, w
hitenoise, psycopg2, django, dj-database-url, gunicorn, django-her
oku
remote:        Successfully installed asgiref-3.5.0 dj-database-ur
l-0.5.0 django-4.0.3 django-heroku-0.3.1 gunicorn-20.1.0 psycopg2-
2.9.3 sqlparse-0.4.2 whitenoise-6.0.0
remote: -----> $ python manage.py collectstatic --noinput
remote:        129 static files copied to '/tmp/build_b8f185d9/sta
ticfiles', 379 post-processed.
remote:
remote: -----> Discovering process types
remote:        Procfile declares types -> web
remote:
remote: -----> Compressing...
remote:        Done: 68.1M
remote: -----> Launching...
remote:        Released v5
remote:        https://still-springs-92511.herokuapp.com/ deployed
 to Heroku
remote:
remote: Verifying deploy... done.
To https://git.heroku.com/still-springs-92511.git
 * [new branch]      main -> main

Isna@DESKTOP-H49FIJQ MINGW64 /d/ISNA/Semester 6/tekn-cloud-computi
ng/minggu-03/python-getting-started (main)
$
```

Aplikasi ini sekarang sedang berjalan. Pastikan setidaknya satu instance aplikasi sedang berjalan :

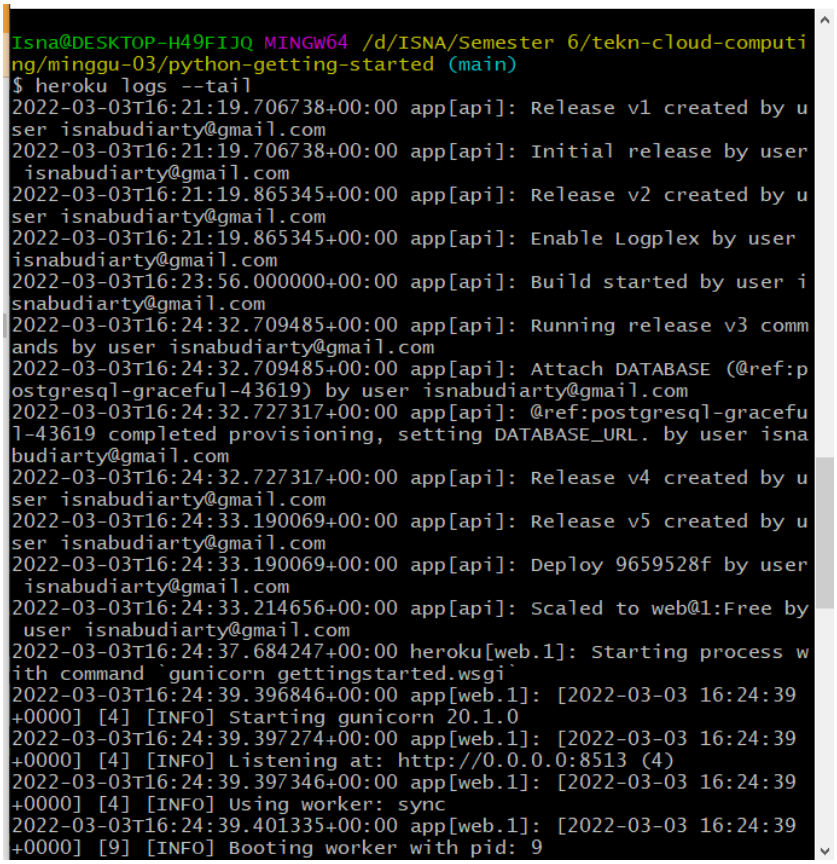
```
Isna@DESKTOP-H49FIJQ MINGW64 /d/ISNA/Semester 6/tekn-cloud-computi
ng/minggu-03/python-getting-started (main)
$ heroku ps:scale web=1
Scaling dynos... done, now running web at 1:Free
```

Mengunjungi aplikasi di URL yang dihasilkan oleh nama aplikasinya. Kita bisa membuka situs web dengan mengetikkan perintah “heroku open” pada Git Bash.



e. Melihat log

Untuk melihat informasi tentang aplikasi yang sedang berjalan menggunakan salah satu perintah logging yaitu heroku logs –tail.



f. Menentukan procfile

g. Skala aplikasi

```
Isna@DESKTOP-H49FIJQ MINGW64 /d/ISNA/Semester 6/tekn-cloud-computi
ng/minggu-03/python-getting-started (main)
$ heroku ps
Free dyno hours quota remaining this month: 550h 0m (100%)
Free dyno usage for this app: 0h 0m (0%)
For more information on dyno sleeping and how to upgrade, see:
https://devcenter.heroku.com/articles/dyno-sleeping

=== web (Free): gunicorn gettingstarted.wsgi (1)
web.1: up 2022/03/03 23:24:39 +0700 (~ 23m ago)
```

Menskalakan aplikasi di Heroku sama dengan mengubah jumlah dyno yang sedang berjalan. Skala jumlah web dynos ke nol:

```
Isna@DESKTOP-H49FIJQ MINGW64 /d/ISNA/Semester 6/tekn-cloud-computi
ng/minggu-03/python-getting-started (main)
$ heroku ps:scale web=0
Scaling dynos... done, now running web at 0:Free
```

Skalakan lagi :

```
Isna@DESKTOP-H49FIJQ MINGW64 /d/ISNA/Semester 6/tekn-cloud-computi
ng/minggu-03/python-getting-started (main)
$ heroku ps:scale web=1
Scaling dynos... done, now running web at 1:Free
```

h. Instal dependensi aplikasi secara lokal

```
Isna@DESKTOP-H49FIJQ MINGW64 /d/ISNA/Semester 6/tekn-cloud-computi
ng/minggu-03/python-getting-started (main)
$ python3 -m venv venv
```

pip install -r requirements.txt

```
Isna@DESKTOP-H49FIJQ MINGW64 /d/ISNA/Semester 6/tekn-cloud-computi
ng/minggu-03/python-getting-started (main)
$ pip install -r requirements.txt
Collecting django
  Downloading Django-4.0.3-py3-none-any.whl (8.0 MB)
Collecting gunicorn
  Downloading gunicorn-20.1.0-py3-none-any.whl (79 kB)
Collecting django-heroku
  Downloading django_heroku-0.3.1-py2.py3-none-any.whl (6.2 kB)
Collecting asgiref<4,>=3.4.1
  Downloading asgiref-3.5.0-py3-none-any.whl (22 kB)
Collecting sqlparse>=0.2.2
  Downloading sqlparse-0.4.2-py3-none-any.whl (42 kB)
Collecting tzdata
  Downloading tzdata-2021.5-py2.py3-none-any.whl (339 kB)
Requirement already satisfied: setuptools>=3.0 in c:\users\isna\ap
pdata\local\programs\python\python39\lib\site-packages (from gunic
orn->-r requirements.txt (line 2)) (49.2.1)
Collecting psycopg2
  Downloading psycopg2-2.9.3-cp39-cp39-win_amd64.whl (1.2 MB)
Collecting whitenoise
  Downloading whitenoise-6.0.0-py3-none-any.whl (19 kB)
Collecting dj-database-url>=0.5.0
  Downloading dj_database_url-0.5.0-py2.py3-none-any.whl (5.5 kB)
Installing collected packages: tzdata, sqlparse, asgiref, whitenoi
se, psycopg2, django, dj-database-url, gunicorn, django-heroku
Successfully installed asgiref-3.5.0 dj-database-url-0.5.0 django-
4.0.3 django-heroku-0.3.1 gunicorn-20.1.0 psycopg2-2.9.3 sqlparse-
0.4.2 tzdata-2021.5 whitenoise-6.0.0
WARNING: You are using pip version 21.3.1; however, version 22.0.3
 is available.
You should consider upgrading via the 'c:\users\isna\appdata\local
\programs\python\python39\python.exe -m pip install --upgrade pip'
 command.
```

pip list

```
Isna@DESKTOP-H49FIJQ MINGW64 /d/ISNA/Semester 6/tekn-cloud-computi
ng/minggu-03/python-getting-started (main)
$ pip list
Package                Version
---------------------- -----------
argon2-cffi            21.1.0
asgiref                3.5.0
attrs                  21.2.0
backcall               0.2.0
bleach                 4.1.0
cassandra-driver       3.25.0
certifi                2021.5.30
cffi                   1.15.0
chardet                4.0.0
click                  7.1.2
colorama               0.4.4
cycler                 0.10.0
debugpy                1.5.1
decorator              5.1.0
defusedxml             0.7.1
dj-database-url        0.5.0
Django                 4.0.3
django-heroku          0.3.1
entrypoints            0.3
geomet                 0.2.1.post1
greenlet               1.1.2
gunicorn               20.1.0
idna                   2.10
influxdb               5.3.1
ipykernel              6.5.0
ipython                7.29.0
ipython-genutils       0.2.0
ipywidgets             7.6.5
jedi                   0.18.0
Jinja2                 3.0.3
```

```
Jinja2                 3.0.3
jsonschema             4.2.1
jupyter                1.0.0
jupyter-client         7.0.6
jupyter-console        6.4.0
jupyter-core           4.9.1
jupyterlab-pygments    0.1.2
jupyterlab-widgets     1.0.2
kiwisolver             1.3.1
MarkupSafe             2.0.1
matplotlib             3.4.2
matplotlib-inline      0.1.3
mistune                0.8.4
msgpack                1.0.2
mysql-connector        2.2.9
mysql-connector-python 8.0.23
nbclient               0.5.8
nbconvert              6.3.0
nbformat               5.1.3
nest-asyncio           1.5.1
notebook               6.4.5
numpy                  1.20.1
oauthlib               3.1.1
packaging              21.2
pandas                 1.2.2
pandocfilters          1.5.0
parso                  0.8.2
pickleshare            0.7.5
Pillow                 8.2.0
pip                    21.3.1
pipeline               0.1.0
prometheus-client      0.12.0
prompt-toolkit         3.0.22
protobuf               3.15.2
psycopg2               2.9.3
pycparser              2.21
Pygments               2.10.0
pymongo                3.11.3
PyMySQL                1.0.2
```

```
PyMySQL                1.0.2
pyparsing              2.4.7
pyrsistent             0.18.0
python-dateutil        2.8.1
pytz                   2021.1
pywin32                302
pywinpty               1.1.6
pyzmq                  22.3.0
qtconsole              5.2.0
QtPy                   1.11.2
redis                  3.5.3
requests               2.25.1
requests-oauthlib      1.3.0
Send2Trash             1.8.0
setuptools             49.2.1
six                    1.15.0
SQLAlchemy             1.4.29
sqlparse               0.4.2
terminado              0.12.1
testpath               0.5.0
tornado                6.1
traitlets              5.1.1
tweepy                 4.4.0
tzdata                 2021.5
urllib3                1.26.5
wcwidth                0.2.5
webencodings           0.5.1
whitenoise             6.0.0
widgetsnbextension     3.5.2
```

i. Menjalankan aplikasi secara lokal

```
Isna@DESKTOP-H49FIJQ MINGW64 /d/ISNA/Semester 6/tekn-cloud-computi
ng/minggu-03/python-getting-started (main)
$ python manage.py collectstatic

129 static files copied to 'D:\ISNA\Semester 6\tekn-cloud-computin
g\minggu-03\python-getting-started\staticfiles', 379 post-processe
d.
```

```
Isna@DESKTOP-H49FIJQ MINGW64 /d/ISNA/Semester 6/tekn-cloud-computi
ng/minggu-03/python-getting-started (main)
$ heroku local -f Procfile.windows
[OKAY] Loaded ENV .env File as KEY=VALUE Format
00:09:38 web.1   |  Watching for file changes with StatReloader
00:09:38 web.1   |  Performing system checks...
00:09:38 web.1   |  System check identified some issues:
00:09:38 web.1   |  WARNINGS:
00:09:38 web.1   |  hello.Greeting: (models.W042) Auto-created pri
mary key used when not defining a primary key type, by default 'dj
ango.db.models.AutoField'.
00:09:38 web.1   |      HINT: Configure the DEFAULT_AUTO_FIELD set
ting or the AppConfig.default_auto_field attribute to point to a s
ubclass of AutoField, e.g. 'django.db.models.BigAutoField'.
00:09:38 web.1   |  System check identified 1 issue (0 silenced).
00:09:38 web.1   |  You have 19 unapplied migration(s). Your proje
ct may not work properly until you apply the migrations for app(s)
: admin, auth, contenttypes, hello, sessions.
00:09:38 web.1   |  Run 'python manage.py migrate' to apply them.
00:09:38 web.1   |  March 04, 2022 - 00:09:38
00:09:38 web.1   |  Django version 4.0.3, using settings 'gettings
tarted.settings'
00:09:38 web.1   |  Starting development server at http://0.0.0.0:
5000/
00:09:38 web.1   |  Quit the server with CTRL-BREAK.
00:11:13 web.1   |  [04/Mar/2022 00:11:13] "GET / HTTP/1.1" 200 74
37
00:11:14 web.1   |  [04/Mar/2022 00:11:14] "GET /static/lang-logo.
png HTTP/1.1" 200 2217
00:11:14 web.1   |  Not Found: /favicon.ico
00:11:14 web.1   |  [04/Mar/2022 00:11:14] "GET /favicon.ico HTTP/
1.1" 404 2346
00:12:37 web.1   |  ^C
^CTerminate batch job (Y/N)? Y
Y
```

Link untuk mengakses GitHub :

https://github.com/isnabudiarti/tekn-cloud-computing