

# **LAPORAN PRAKTIKUM**

## **TEKNOLOGI CLOUD**

### **Pertemuan Ke-3**



**DISUSUN OLEH :**

**NIM : 195610013**

**Nama : Isna Budiarti Utami**

**Prodi : Sistem Informasi**

**UNIVERSITAS TEKNOLOGI DIGITAL INDONESIA**

**2021/2022**

# BAB I

## PEMBAHASAN LATIHAN

### Latihan

#### 1. Signup ke Heroku


The first screenshot shows the Heroku signup page at `signup.heroku.com`. The page has a dark blue background with the Heroku logo and a 'Log in' button for existing users. The main heading is 'Sign up for free and experience Heroku today'. Below this, there are two sections: 'Free account' and 'Your app platform'. The 'Free account' section states: 'Create apps, connect databases and add-on services, and collaborate on your apps, for free.' The 'Your app platform' section states: 'A platform for apps, with app management & instant scaling, for development and production.' To the right of these sections is a form with the following fields: 'First name', 'Last name', 'Email address', 'Company name', and 'Role'. Each field has a red asterisk indicating it is required.

The second screenshot shows the 'Set your password' page at `signup.heroku.com/confirm`. The page has the same dark blue background and Heroku logo. The heading is 'Set your password' with a subheading 'Create your password and log in to your Heroku account.' Below this is a form with two fields: 'New password' and 'Confirm new password'. Both fields have a red asterisk indicating they are required. Below the form, there are 'Password requirements' listed as follows:

- Must be a minimum of 8 characters.
- Must contain letters, numbers, and symbols.
- Passwords must match.

← → ↻ 🔒 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

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



## Almost there ...

Please check your email (isnabudiarty@gmail.com) to confirm your account.

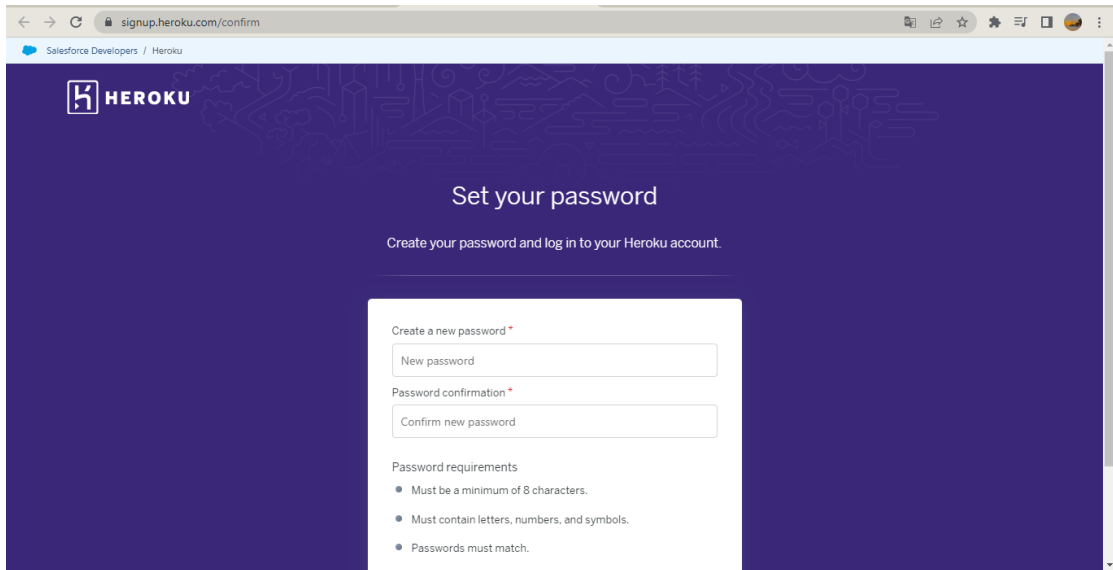
---

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.

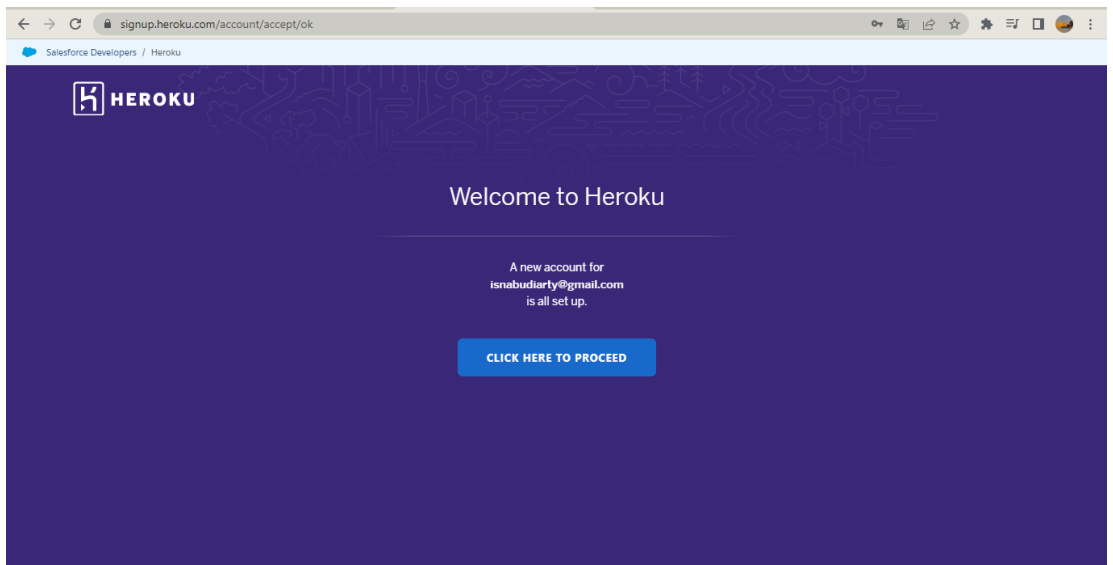
Still can't find it? Try searching Gmail for "install subject:(Confirm your account on Heroku)"

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



The screenshot shows a web browser window with the address bar displaying `signup.heroku.com/confirm`. The page has a dark purple background with a subtle pattern of icons. At the top left is the Heroku logo. The main heading is "Set your password", followed by the instruction "Create your password and log in to your Heroku account." Below this is a white form box containing two input fields: "New password" and "Password confirmation". Under the form, there are "Password requirements" listed as bullet points: "Must be a minimum of 8 characters.", "Must contain letters, numbers, and symbols.", and "Passwords must match."

Setelah itu kita klik tombol “CLICK HERE TO PROCEED”



The screenshot shows a web browser window with the address bar displaying `signup.heroku.com/account/accept/ok`. The page has the same dark purple background and Heroku logo as the previous page. The main heading is "Welcome to Heroku". Below it, a message states: "A new account for isnabudiarty@gmail.com is all set up." At the bottom center, there is a blue button with the text "CLICK HERE TO PROCEED".

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

Salesforce Platform

HEROKU

Jump to Favorites, Apps, Pipelines, Spaces...

use, in which case such provider's terms of use govern the use or purchase of the applicable Heroku Elements. [Terms](#) apply to credit card customers of the Heroku Services.

Heroku Marketplace Providers

If you are or become a Heroku Elements Marketplace Provider, you further agree that your participation in the Heroku Elements Marketplace is governed by the [Salesforce License and Distribution Agreement for the Heroku Elements Marketplace](#).

Italian Customers

Are you domiciled in Italy?

☐ No.

Accept

heroku.com Blogs Careers Documentation Support Terms of Service Privacy Cookies © 2022 Salesforce.com

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

Salesforce Platform

HEROKU

Jump to Favorites, Apps, Pipelines, Spaces...

Personal New

Welcome to Heroku

Now that your account has been set up, here's how to get started.

Dismiss

Create a new app

Create your first app and deploy your code to a running dyno.

Create new app

Create a team

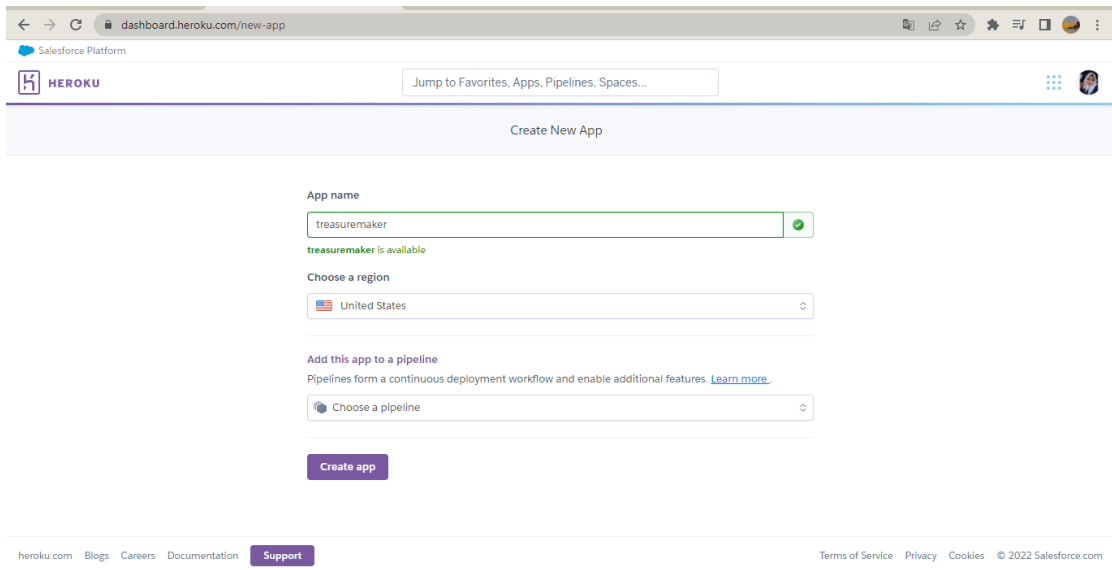
Create teams to collaborate on your apps and pipelines.

Create a team

Looking for help getting started with your language?

Get started by reading one of our language guides in the Dev Center

## 2. Buat aplikasi baru melalui dashboard



dashboard.heroku.com/new-app

Salesforce Platform

HEROKU

Jump to Favorites, Apps, Pipelines, Spaces...

Create New App

App name

treasuremaker

treasuremaker is available

Choose a region

United States

Add this app to a pipeline

Pipelines form a continuous deployment workflow and enable additional features. [Learn more.](#)

Choose a pipeline

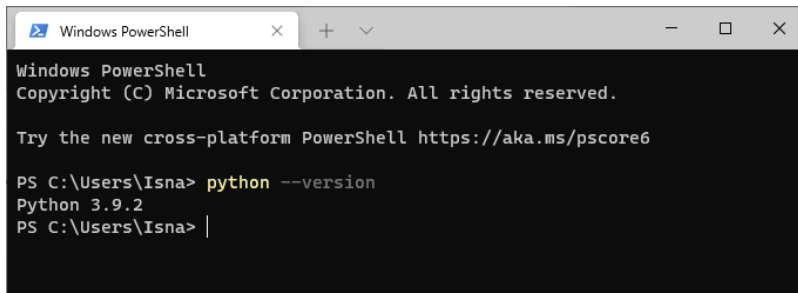
Create app

heroku.com Blogs Careers Documentation Support

Terms of Service Privacy Cookies © 2022 Salesforce.com

## 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.



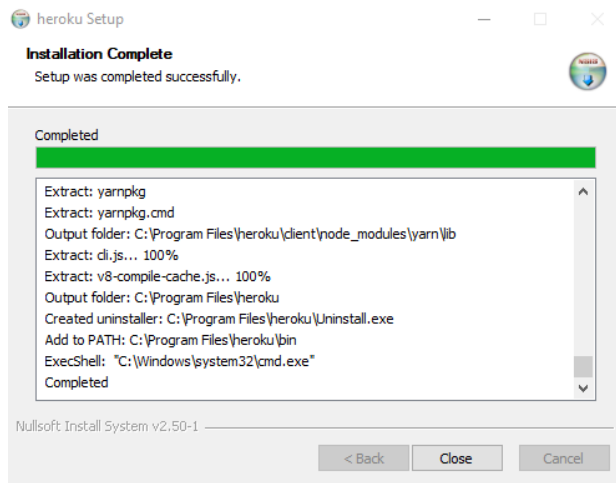
```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

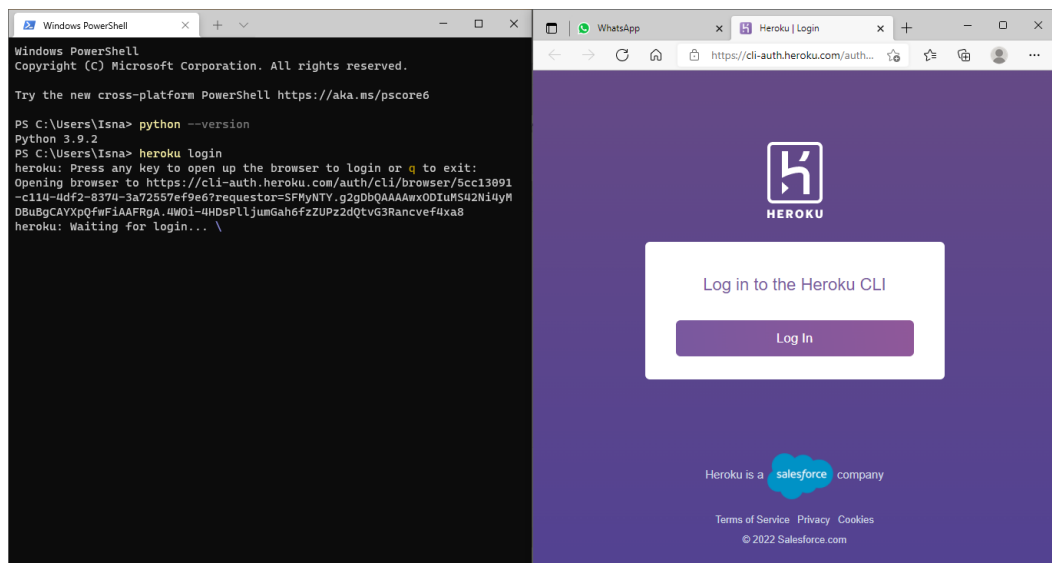
PS C:\Users\Isna> python --version
Python 3.9.2
PS C:\Users\Isna> |
```

Disini untuk versi Python yang digunakan yaitu Python 3.9.2

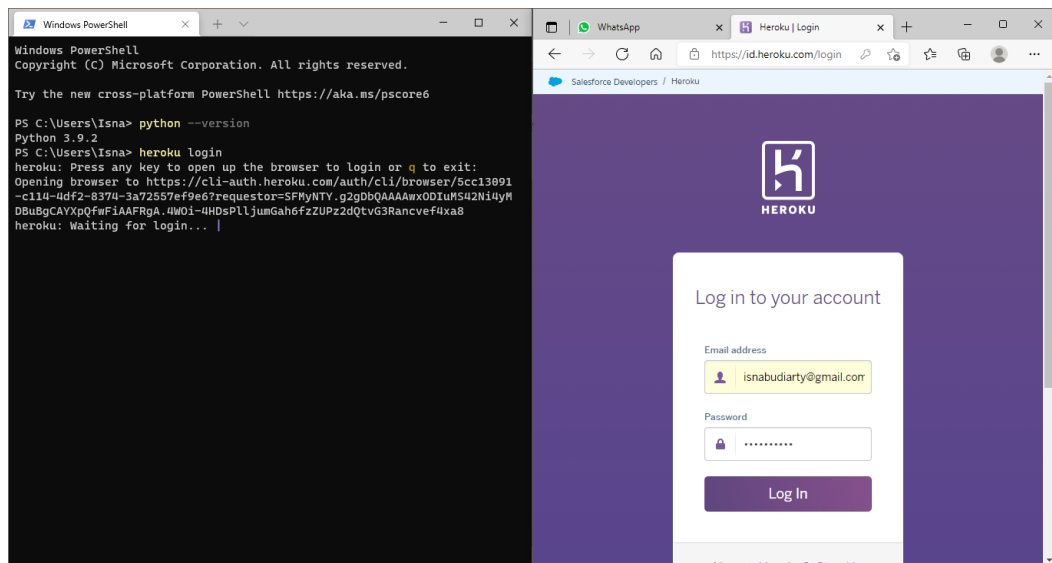
4. Kerjakan Getting Started on Heroku with Python, tidak perlu mengerjakan heroku pg:psql jika tidak ada PostgreSQL di lokal.
- a. Mempersiapkan dengan mengunduh dan menginstall Heroku CLI



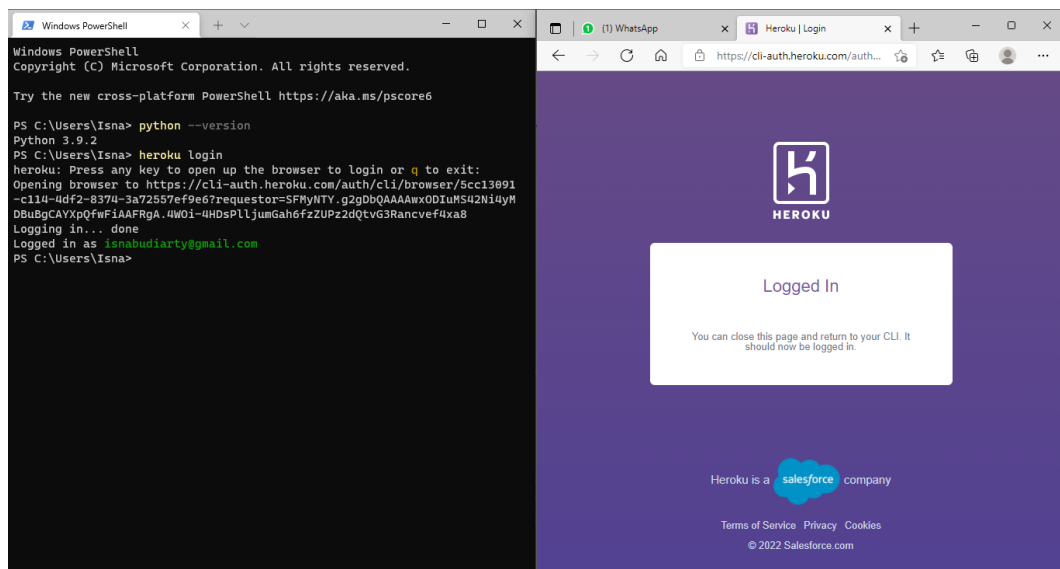
- b. Membuka browser ke halaman login Heroku, kemudian klik Log in



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

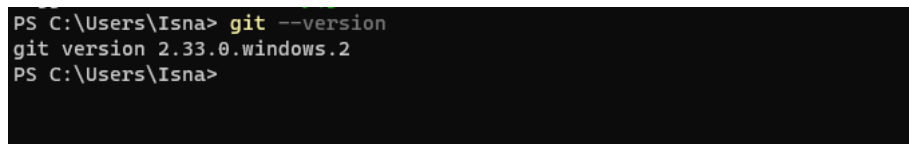


Setelah itu, klik Log in, maka tampilannya akan menjadi seperti berikut.



### c. Menyiapkan aplikasi

Memastikan Git sudah terinstal





## Mengkloning aplikasi

MINGW64: d:/ISNA/Semester 6/tekn-cloud-computing/minggu-03/python-getting-started

```
Isna@DESKTOP-H49FIJQ MINGW64 /d/ISNA/Semester 6/tekn-cloud-computing/minggu-03
$ git clone https://github.com/heroku/python-getting-started.git
Cloning into 'python-getting-started'...
remote: Enumerating objects: 512, done.
Receiving objremote: Total 512 (delta 0), reused 0 (delta 0), pack
-reused 512
Receiving objects: 100% (512/512), 95.55 KiB | 1.71 MiB/s, done.
Resolving deltas: 100% (237/237), done.

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

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

Kini saya sudah memiliki repositori git yang berisi aplikasi sederhana.

### d. Menerapkan aplikasi

```
Isna@DESKTOP-H49FIJQ MINGW64 /d/ISNA/Semester 6/tekn-cloud-computi
ng/minggu-03/python-getting-started (main)
$ heroku create
Creating app... done, still-springs-92511
https://still-springs-92511.herokuapp.com/ | https://git.heroku.co
m/still-springs-92511.git

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

## Push Heroku main

```
Isna@DESKTOP-H49FIJQ MINGW64 /d/ISNA/Semester 6/tekn-cloud-computing/minggu-03/python-getting-started (main)
$ git push heroku main
Enumerating objects: 512, done.
Counting objects: 100% (512/512), done.
Delta compression using up to 4 threads
Compressing objects: 100% (238/238), done.
Writing objects: 100% (512/512), 95.53 KiB | 10.61 MiB/s, done.
Total 512 (delta 237), reused 512 (delta 237), pack-reused 0
remote: Compressing source files... done.
remote: Building source:
remote:
remote: -----> Building on the Heroku-20 stack
remote: -----> Determining which buildpack to use for this app
remote: -----> Python app detected
remote: -----> Using Python version specified in runtime.txt
remote: -----> Installing python-3.10.2
remote: -----> Installing pip 21.3.1, setuptools 57.5.0 and wheel 0.37.0
remote: -----> Installing SQLite3
remote: -----> Installing requirements with pip
remote:      Collecting django
remote:      Downloading Django-4.0.3-py3-none-any.whl (8.0 MB)
remote:      Collecting gunicorn
remote:      Downloading gunicorn-20.1.0-py3-none-any.whl (79 kB)
remote:      Collecting django-heroku
remote:      Downloading django_heroku-0.3.1-py2.py3-none-any.whl (6.2 kB)
remote:      Collecting asgiref<4,>=3.4.1
remote:      Downloading asgiref-3.5.0-py3-none-any.whl (22 kB)
remote:      Collecting sqlparse>=0.2.2
remote:      Downloading sqlparse-0.4.2-py3-none-any.whl (42 kB)
remote:      Collecting psycopg2
```

```

kB)
remote:      Building wheels for collected packages: psycpg2
remote:      Building wheel for psycpg2 (setup.py): started
remote:      Building wheel for psycpg2 (setup.py): finished
with status 'done'
remote:      Created wheel for psycpg2: filename=psycpg2-2.9
.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 psycpg2
remote:      Installing collected packages: sqlparse, asgiref, w
hite noise, psycpg2, 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 psycpg2-
2.9.3 sqlparse-0.4.2 white noise-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)
$

```

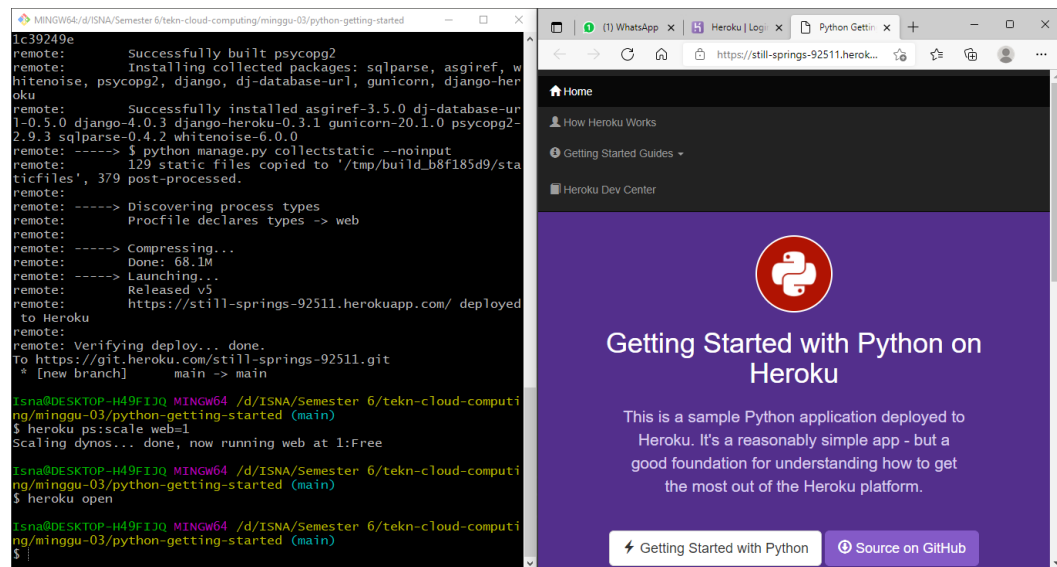
Aplikasi ini sekarang sedang berjalan. Pastikan setidaknya satu instance aplikasi sedang berjalan :

```

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.



The image shows a terminal window on the left and a web browser on the right. The terminal window displays the output of the `heroku` commands, including the successful deployment of the application to Heroku. The web browser shows the Heroku "Getting Started with Python on Heroku" page, which provides a sample Python application deployed to Heroku.

```
1c39249e
remote:      Successfully built psycpg2
remote:      Installing collected packages: sqlparse, asgiref, w
remote:      hitenoise, psycpg2, django, dj-database-url, gunicorn, django-her
remote:      oku
remote:      Successfully installed asgiref-3.5.0 dj-database-ur
remote:      1-0.5.0 django-4.0.3 django-heroku-0.3.1 gunicorn-20.1.0 psycpg2-
remote:      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
remote:      ticfiles', 379 post-processed.
remote:      -----> Discovering process types
remote:      Procfile declares types => web
remote:      -----> Compressing...
remote:      Done: 68.1M
remote:      -----> Launching...
remote:      Released v5
remote:      https://still-springs-92511.herokuapp.com/ deployed
remote:      to Heroku
remote:      Verifying deploy... done.
remote:      To https://git.heroku.com/still-springs-92511.git
remote:      * [new branch] main -> main

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

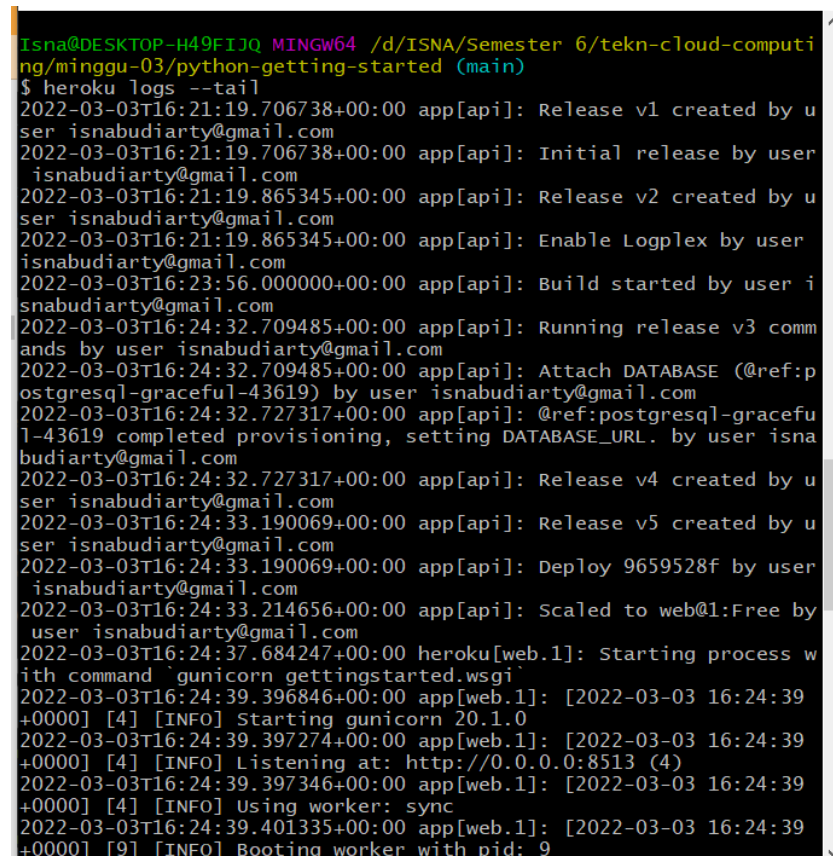
Isna@DESKTOP-H49FIJQ MINGW64 /d/ISNA/Semester 6/tekn-cloud-computi
ng/minggu-03/python-getting-started (main)
$ heroku open

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

The web browser shows the Heroku "Getting Started with Python on Heroku" page, which provides a sample Python application deployed to Heroku. The page includes the Heroku logo, the title "Getting Started with Python on Heroku", and a description: "This is a sample Python application deployed to Heroku. It's a reasonably simple app - but a good foundation for understanding how to get the most out of the Heroku platform." The page also has two buttons: "Getting Started with Python" and "Source on GitHub".

#### e. Melihat log

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



The image shows a terminal window with the output of the `heroku logs --tail` command. The output displays a series of log messages from the Heroku application, including release creation, build started, and deployment details.

```
Isna@DESKTOP-H49FIJQ MINGW64 /d/ISNA/Semester 6/tekn-cloud-computi
ng/minggu-03/python-getting-started (main)
$ heroku logs --tail
2022-03-03T16:21:19.706738+00:00 app[api]: Release v1 created by u
ser isnaudiarty@gmail.com
2022-03-03T16:21:19.706738+00:00 app[api]: Initial release by user
isnaudiarty@gmail.com
2022-03-03T16:21:19.865345+00:00 app[api]: Release v2 created by u
ser isnaudiarty@gmail.com
2022-03-03T16:21:19.865345+00:00 app[api]: Enable Logplex by user
isnaudiarty@gmail.com
2022-03-03T16:23:56.000000+00:00 app[api]: Build started by user i
snaudiarty@gmail.com
2022-03-03T16:24:32.709485+00:00 app[api]: Running release v3 comm
ands by user isnaudiarty@gmail.com
2022-03-03T16:24:32.709485+00:00 app[api]: Attach DATABASE (@ref:p
ostgresql-graceful-43619) by user isnaudiarty@gmail.com
2022-03-03T16:24:32.727317+00:00 app[api]: @ref:postgresql-gracefu
l-43619 completed provisioning, setting DATABASE_URL. by user isna
udiarty@gmail.com
2022-03-03T16:24:32.727317+00:00 app[api]: Release v4 created by u
ser isnaudiarty@gmail.com
2022-03-03T16:24:33.190069+00:00 app[api]: Release v5 created by u
ser isnaudiarty@gmail.com
2022-03-03T16:24:33.190069+00:00 app[api]: Deploy 9659528f by user
isnaudiarty@gmail.com
2022-03-03T16:24:33.214656+00:00 app[api]: Scaled to web@1:Free by
user isnaudiarty@gmail.com
2022-03-03T16:24:37.684247+00:00 heroku[web.1]: Starting process w
ith command `gunicorn gettingstarted.wsgi`
2022-03-03T16:24:39.396846+00:00 app[web.1]: [2022-03-03 16:24:39
+0000] [4] [INFO] Starting gunicorn 20.1.0
2022-03-03T16:24:39.397274+00:00 app[web.1]: [2022-03-03 16:24:39
+0000] [4] [INFO] Listening at: http://0.0.0.0:8513 (4)
2022-03-03T16:24:39.397346+00:00 app[web.1]: [2022-03-03 16:24:39
+0000] [4] [INFO] Using worker: sync
2022-03-03T16:24:39.401335+00:00 app[web.1]: [2022-03-03 16:24:39
+0000] [9] [INFO] Booting worker with pid: 9
```

- 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 psychopg2
  Downloading psychopg2-2.9.3-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, whitenoise, psychopg2, 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 psychopg2-2.9.3 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
pypersistent	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-computing/minggu-03/python-getting-started (main)
$ python manage.py collectstatic

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

```
Isna@DESKTOP-H49FIJQ MINGW64 /d/ISNA/Semester 6/tekn-cloud-computing/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 primary key used when not defining a primary key type, by default 'django.db.models.AutoField'.
00:09:38 web.1 | HINT: Configure the DEFAULT_AUTO_FIELD setting or the AppConfig.default_auto_field attribute to point to a subclass 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 project 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 'getting-started.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 7437
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>