

**LAPORAN PRAKTIKUM**  
**PRAKTIKUM TEKNOLOGI CLOUD**  
**PERTEMUAN KE – 03**

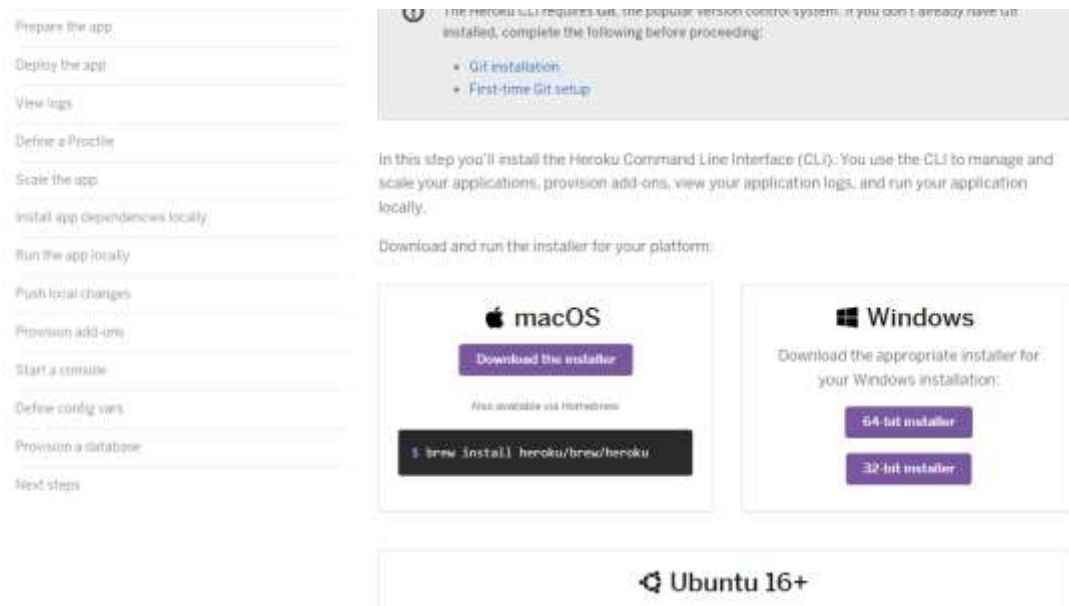


**Disusun Oleh:**

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**JURUSAN : SISTEM INFORMASI**  
**JENJANG : S1**

## LATIHAN

Terlebih dahulu untuk mendownload Heroku CLI sesuai OS di PC



Perintah untuk login di Heroku selanjutnya di clone

**CA:** Administrator: Command Prompt - heroku login

```
logged in as andikarifki03@gmail.com

C:\Users\User>heroku login
heroku: Press any key to open up the browser to login or q to exit:
Opening browser to https://cli-auth.heroku.com/auth/cli/browser/3cd0
?gDbQAAAA8yMDMuMTkwLjI0Ni4yNDJuBgC4iE5AfwFiAAFRgA.GgbWhL7w104Y57YdxV
Logging in... done
logged in as andikarifki03@gmail.com

C:\Users\User>git clone https://github.com/heroku/python-getting-started.git
Cloning into 'python-getting-started'...
remote: Enumerating objects: 512, done.
Receiving objects: 91% (466/512) 0 (delta 0), pack-reused 512 ece
Receiving objects: 100% (512/512), 95.55 KiB | 0 bytes/s, done.
Resolving deltas: 100% (237/237), done.
Checking connectivity... done.

C:\Users\User>D:

D:\>git clone https://github.com/heroku/python-getting-started.git
Cloning into 'python-getting-started'...
remote: Enumerating objects: 512, done.
Receiving objects: 84% (431/512) 0 (delta 0), pack-reused 512
Receiving objects: 100% (512/512), 95.55 KiB | 0 bytes/s, done.
Resolving deltas: 100% (237/237), done.
Checking connectivity... done.

D:\>heroku login
heroku: Waiting for login... \
```

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Logged In

You can close this page and return to your CLI. It should still be logged in.

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We use cookies to make interactions with our websites and services easy and meaningful, to better understand how they are used and to tailor advertising. You can [read more](#) and [make your cookie choices here](#). By continuing to use this site you are giving us your consent to do this.



Log in to the Heroku CLI

Log In

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Administrator: Command Prompt

```
Creating app... done, ⚙️ enigmatic-eyrie-96981
https://enigmatic-eyrie-96981.herokuapp.com/ | https://git.heroku.com/enigmatic-eyrie-96981.git
D:\python-getting-started>heroku create
D:\python-getting-started>git push heroku main
Counting objects: 512, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (238/238), done.
Writing objects: 100% (512/512), 95.53 KiB | 0 bytes/s, done.
Total 512 (delta 237), reused 512 (delta 237)
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-4.0.2-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 sqlparse>=0.2.2
remote:   Downloading sqlparse-0.4.2-py3-none-any.whl (42 kB)
remote: Collecting asgiref<4,>=3.4.1
remote:   Downloading asgiref-3.5.0-py3-none-any.whl (22 kB)
```

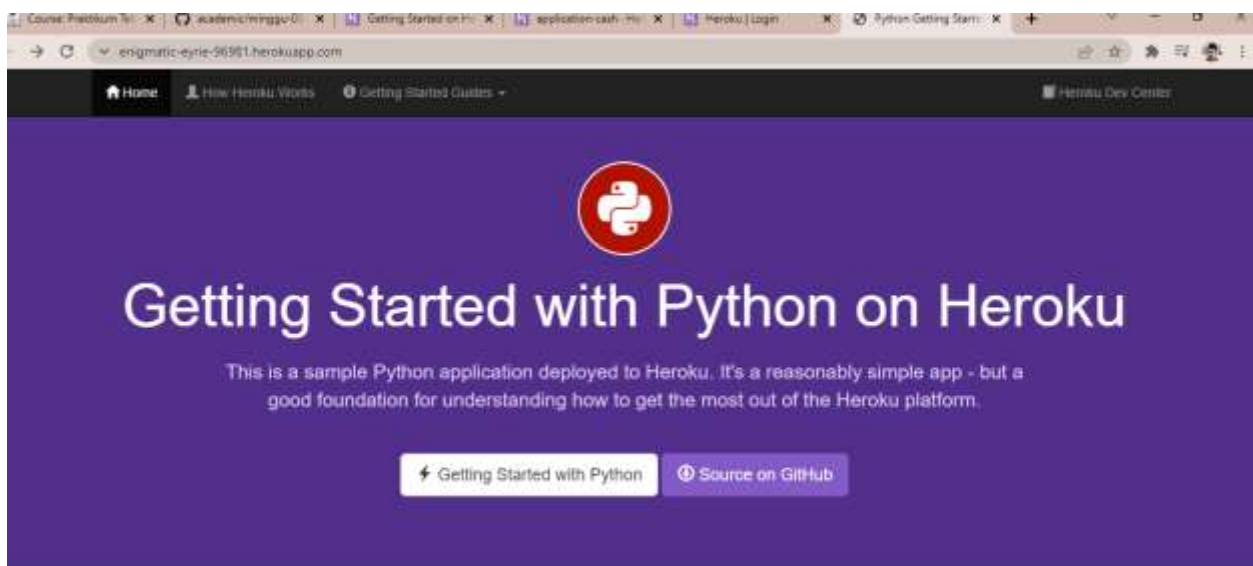
Administrator: Command Prompt

```
remote: Preparing metadata (setup.py): finished with status 'done'
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-cp310-54a3e94805066131e3f8866dd6797fd4902a91358c0d3da53fce9297419
remote: Stored in directory: /tmp/pip-ephem-wheel-cache-74pafeyu/wheels/ab52de882e091c39249e
remote: Successfully built psycopg2
remote: Installing collected packages: sqlparse, asgiref, whitenoise,
remote: , django-heroku
remote: Successfully installed asgiref-3.5.0 dj-database-url-0.5.0 dj-
remote: .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_eecfa70f/staticfiles',
remote:
remote: -----> Discovering process types
remote: Procfile declares types -> web
remote:
remote: -----> Compressing...
remote: Done: 68M
remote: -----> Launching...
remote: Released v5
Scaling dynos... done, now running web at 1:Free

D:\python-getting-started>
```

Perintah untuk membuka Heroku yang berisi memulai python di heroku

```
Administrator: Command Prompt
.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_eecfa70
remote:
remote: -----> Discovering process types
remote:          Procfile declares types -> web
remote:
remote: -----> Compressing...
remote:          Done: 68M
remote: -----> Launching...
remote:          Released v5
Scaling dynos... done, now running web at 1:Free
D:\python-getting-started>heroku open
D:\python-getting-started>
```



To deploy your own code, and learn the fundamentals of the Heroku platform, head over to the [Getting Started with Python on Heroku](#) tutorial.

Heroku memperlakukan log sebagai aliran peristiwa berurutan waktu yang dikumpulkan dari aliran keluaran semua aplikasi Anda dan komponen Heroku, menyediakan satu saluran untuk semua peristiwa

```
Administrator: Command Prompt
ms status=200 bytes=2491 protocol=https
2022-02-28T12:45:25.957157+00:00 app[web.1]: 10.1.91.183 - - [28/Feb/20
P/1.1" 200 0 "https://enigmatic-eyrie-96981.herokuapp.com/" "Mozilla/5.
6 (KHTML, like Gecko) Chrome/98.0.4758.102 Safari/537.36"
2022-02-28T12:45:26.414653+00:00 heroku[router]: at=info method=GET pat
uapp.com request_id=7a2fa050-4fde-429b-a158-7754005ae0b3 fwd="203.190.2
=404 bytes=2642 protocol=https
2022-02-28T12:45:26.415553+00:00 app[web.1]: Not Found: /favicon.ico
2022-02-28T12:45:26.415901+00:00 app[web.1]: 10.1.91.183 - - [28/Feb/20
4 2368 "https://enigmatic-eyrie-96981.herokuapp.com/" "Mozilla/5.0 (Win
ML, like Gecko) Chrome/98.0.4758.102 Safari/537.36"
Scaling dynos... done, now running web at 1:Free

D:\python-getting-started>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 2022/02/28 19:33:46 +0700 (~ 20m ago)

D:\python-getting-started>heroku ps:scale web=0
Scaling dynos... done, now running web at 0:Free

D:\python-getting-started>heroku ps:scale web=1
Scaling dynos... done, now running web at 1:Free

D:\python-getting-started>
```

Perintah ps scale

Secara default, aplikasi Anda diterapkan pada dyno gratis. Dyno gratis akan tidur setelah setengah jam tidak aktif (jika tidak menerima lalu lintas). Ini menyebabkan penundaan beberapa detik untuk permintaan pertama saat bangun tidur. Permintaan berikutnya akan bekerja secara normal. Dyno gratis juga menggunakan kuota dyno gratis bulanan tingkat akun - selama kuota tidak habis, semua aplikasi gratis dapat terus berjalan.

Untuk menghindari dyno sleep, kamu bisa upgrade ke tipe dyno hobby atau professional seperti yang dijelaskan di artikel Tipe Dyno. Misalnya, jika Anda memigrasikan aplikasi ke dyno profesional, Anda dapat dengan mudah menskalakannya dengan menjalankan perintah yang memberi tahu Heroku untuk mengeksekusi sejumlah dyno tertentu, masing-masing menjalankan jenis proses web Anda.

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

Perintah Heroku local adalah perintah local web server

```
C:\ Administrator: Command Prompt
Scaling dynos... done, now running web at 0:Free
D:\python-getting-started>heroku ps:scale web=1
Scaling dynos... done, now running web at 1:Free
D:\python-getting-started>python3 -m venv venv
D:\python-getting-started>pip install -r requirements.txt
'pip' is not recognized as an internal or external command,
operable program or batch file.
D:\python-getting-started>pip list
'pip' is not recognized as an internal or external command,
operable program or batch file.
D:\python-getting-started>python manage.py collectstatic
D:\python-getting-started>heroku local
[OKAY] Loaded ENV .env File as KEY=VALUE Format
8:02:35 PM web.1 | 'gunicorn' is not recognized as an internal or external command,
8:02:35 PM web.1 | operable program or batch file.
[DONE] Killing all processes with signal SIGINT
8:02:35 PM web.1 Exited with exit code null
```

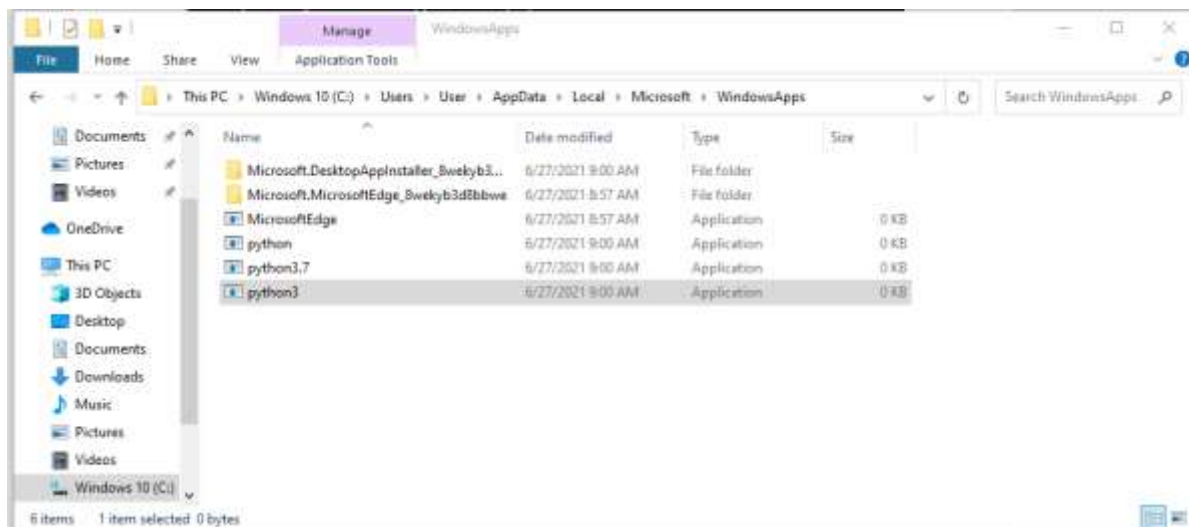
```
C:\ Administrator: Command Prompt
^CTerminate batch job (Y/N)? Y
D:\python-getting-started>heroku ps
Free dyno hours quota remaining this month: 550h 0m (100%)
Free dyno usage for this app: 0h 0m (0%)
For more information on dyno sleeping and how to upgrade, see:
https://devcenter.heroku.com/articles/dyno-sleeping

=== web (Free): gunicorn gettingstarted.wsgi (1)
web.1: up 2022/03/02 16:30:55 +0700 (~ 7m ago)

D:\python-getting-started>heroku ps:scale web=0
Scaling dynos... done, now running web at 0:Free

D:\python-getting-started>heroku ps:scale web=1
Scaling dynos... done, now running web at 1:Free

D:\python-getting-started>python3 -m venv venv
D:\python-getting-started>py -m venv env
D:\python-getting-started>where python
C:\Users\User\AppData\Local\Microsoft\WindowsApps\python.exe
D:\python-getting-started>
```



```
Administrator: Command Prompt
D:\python-getting-started>py -m venv env
D:\python-getting-started>where python
C:\Users\User\AppData\Local\Microsoft\WindowsApps\python.exe
D:\python-getting-started>py -m pip install requests
Collecting requests
  Downloading requests-2.27.1-py2.py3-none-any.whl (63 kB)
    | 63 kB 2.3 MB/s
Collecting charset-normalizer~=2.0.0
  Downloading charset_normalizer-2.0.12-py3-none-any.whl (39 kB)
Collecting idna<4,>=2.5
  Downloading idna-3.3-py3-none-any.whl (61 kB)
    | 61 kB 3.8 MB/s
Collecting certifi>=2017.4.17
  Downloading certifi-2021.10.8-py2.py3-none-any.whl (149 kB)
    | 149 kB 6.4 MB/s
Collecting urllib3<1.27,>=1.21.1
  Downloading urllib3-1.26.8-py2.py3-none-any.whl (138 kB)
    | 138 kB ...
Installing collected packages: urllib3, idna, charset-normalizer, certifi, requests
WARNING: The script normalizer.exe is installed in 'C:\Users\User\AppData\Local\Programs\Python\Python310\Scripts' but
normalizer.exe is not on PATH.
Consider adding this directory to PATH or, if you prefer to suppress this warning, use --no-warn-script-location.
Successfully installed certifi-2021.10.8 charset-normalizer-2.0.12 idna-3.3 requests-2.27.1 urllib3-1.26.8
WARNING: You are using pip version 21.2.4; however, version 22.0.3 is available.
You should consider upgrading via the 'C:\Users\User\AppData\Local\Programs\Python\Python310\python.exe -m pip
--upgrade pip' command.
D:\python-getting-started>
```



```
Administrator: Command Prompt
D:\python-getting-started>py -m pip install requests
Collecting requests
  Downloading requests-2.27.1-py2.py3-none-any.whl (63 kB)
    | 63 kB 2.3 MB/s
Collecting charset-normalizer~=2.0.0
  Downloading charset-normalizer-2.0.12-py3-none-any.whl (39 kB)
Collecting idna<4,>=2.5
  Downloading idna-3.3-py3-none-any.whl (61 kB)
    | 61 kB 3.8 MB/s
Collecting certifi>=2017.4.17
  Downloading certifi-2021.10.8-py2.py3-none-any.whl (149 kB)
    | 149 kB 6.4 MB/s
Collecting urllib3<1.27,>=1.21.1
  Downloading urllib3-1.26.8-py2.py3-none-any.whl (138 kB)
    | 138 kB ...
Installing collected packages: urllib3, idna, charset-normalizer, certifi, requests
  WARNING: The script normalizer.exe is installed in 'C:\Users\User\AppData\Local\Programs\Python\Python310\Scripts' but
  is not on PATH.
  Consider adding this directory to PATH or, if you prefer to suppress this warning, use --no-warn-script-location.
Successfully installed certifi-2021.10.8 charset-normalizer-2.0.12 idna-3.3 requests-2.27.1 urllib3-1.26.8
WARNING: You are using pip version 21.2.4; however, version 22.0.3 is available.
You should consider upgrading via the 'C:\Users\User\AppData\Local\Programs\Python\Python310\python.exe --upgrade pip' command.

D:\python-getting-started>py -m pip install requests[security]
Requirement already satisfied: requests[security] in c:\users\user\appdata\local\programs\python\python310\lib\site-packages (2.27.1)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in c:\users\user\appdata\local\programs\python\python310\lib\site-packages (from requests[security]) (1.26.8)
Requirement already satisfied: certifi>=2017.4.17 in c:\users\user\appdata\local\programs\python\python310\lib\site-packages (from requests[security]) (2021.10.8)
Requirement already satisfied: charset-normalizer~=2.0.0 in c:\users\user\appdata\local\programs\python\python310\lib\site-packages (from requests[security]) (2.0.12)
Requirement already satisfied: idna<4,>=2.5 in c:\users\user\appdata\local\programs\python\python310\lib\site-packages (from requests[security]) (3.3)
WARNING: You are using pip version 21.2.4; however, version 22.0.3 is available.
You should consider upgrading via the 'C:\Users\User\AppData\Local\Programs\Python\Python310\python.exe --upgrade pip' command.

D:\python-getting-started>cd google-auth
```

```

Administrator: Command Prompt

The system cannot find the path specified.

D:\python-getting-started>git+https://github.com/GoogleCloudPlatform/google-auth-library-python.git#egg=
'git+https:' is not recognized as an internal or external command,
operable program or batch file.

D:\python-getting-started>py -m pip install -r requirements.txt
Collecting django
  Downloading Django-4.0.3-py3-none-any.whl (8.0 MB)
    | 8.0 MB 3.3 MB/s
Collecting gunicorn
  Downloading gunicorn-20.1.0-py3-none-any.whl (79 kB)
    | 79 kB 1.3 MB/s
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 tzdata
  Downloading tzdata-2021.5-py2.py3-none-any.whl (339 kB)
    | 339 kB 1.1 MB/s
Collecting sqlparse>=0.2.2
  Downloading sqlparse-0.4.2-py3-none-any.whl (42 kB)
    | 42 kB 1.7 MB/s
Requirement already satisfied: setuptools>=3.0 in c:\users\user\appdata\local\programs\python\python310\
s (from gunicorn->-r requirements.txt (line 2)) (58.1.0)
Collecting psycpg2
  Downloading psycpg2-2.9.3-cp310-cp310-win_amd64.whl (1.2 MB)
    | 1.2 MB 1.6 MB/s
Collecting dj-database-url>=0.5.0
  Downloading dj_database_url-0.5.0-py2.py3-none-any.whl (5.5 kB)
Collecting whitenoise
  Downloading whitenoise-6.0.0-py3-none-any.whl (19 kB)
Installing collected packages: tzdata, sqlparse, asgiref, whitenoise, psycpg2, django, dj-database-url,
o-heroku
WARNING: The script sqlformat.exe is installed in 'C:\Users\User\AppData\Local\Programs\Python\Python3
h is not on PATH.
Consider adding this directory to PATH or, if you prefer to suppress this warning, use --no-warn-scrip
WARNING: The script django-admin.exe is installed in 'C:\Users\User\AppData\Local\Programs\Python\Pyth
hich is not on PATH.
Consider adding this directory to PATH or, if you prefer to suppress this warning, use --no-warn-scrip
WARNING: The script gunicorn.exe is installed in 'C:\Users\User\AppData\Local\Programs\Python\Python31

```

```

Administrator: Command Prompt

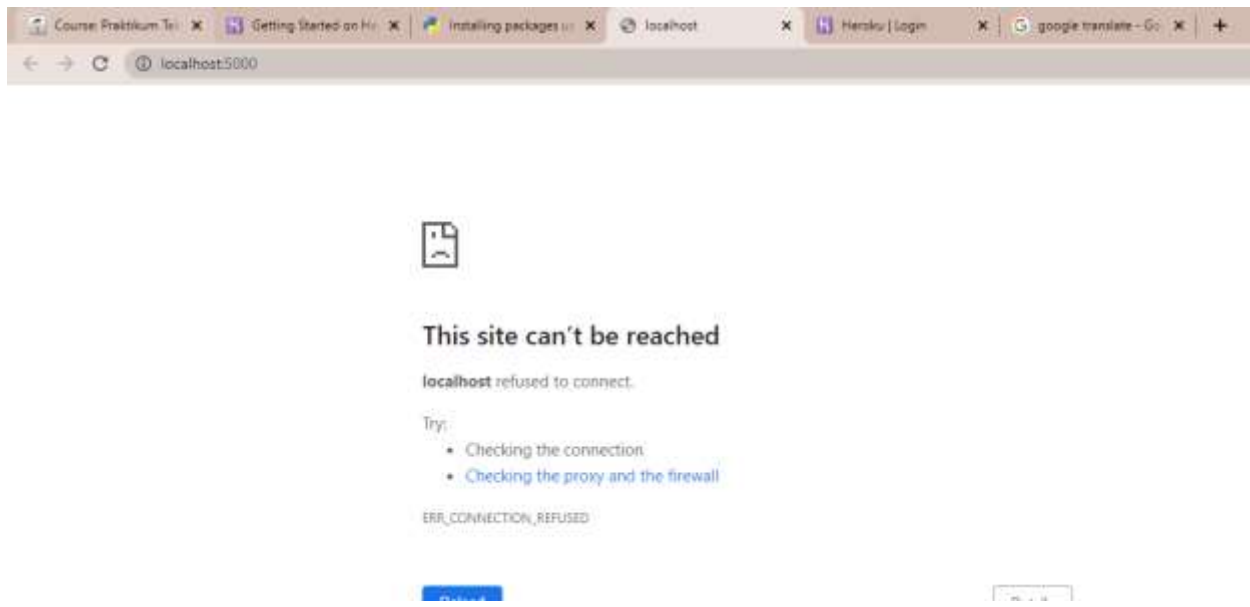
D:\python-getting-started>python manage.py collectstatic

D:\python-getting-started>heroku local -f Procfile.windows
[OKAY] Loaded ENV .env File as KEY=VALUE Format
5:00:24 PM web.1 | Python was not found but can be installed fr
[DONE] Killing all processes with signal SIGINT
5:00:24 PM web.1 | om the Microsoft Store: ms-windows-store://pdp/?productid=9NJ46SX7X90P
5:00:24 PM web.1 | Exited with exit code null

D:\python-getting-started>heroku local
[OKAY] Loaded ENV .env File as KEY=VALUE Format
5:00:30 PM web.1 | 'gunicorn' is not recognized as an internal or external command,
5:00:30 PM web.1 | operable program or batch file.
[DONE] Killing all processes with signal SIGINT
5:00:30 PM web.1 | Exited with exit code null

D:\python-getting-started>

```



Administrator: Command Prompt

```
D:\python-getting-started>pip install -r requirements.txt
'pip' is not recognized as an internal or external command,
operable program or batch file.

D:\python-getting-started>pip list
'pip' is not recognized as an internal or external command,
operable program or batch file.

D:\python-getting-started>python manage.py collectstatic

D:\python-getting-started>heroku local
[OKAY] Loaded ENV .env File as KEY=VALUE Format
8:02:35 PM web.1 | 'gunicorn' is not recognized as an internal or external command,
8:02:35 PM web.1 | operable program or batch file.
[DONE] Killing all processes with signal SIGINT
8:02:35 PM web.1 Exited with exit code null

D:\python-getting-started>pip install -r requirements.txt
'pip' is not recognized as an internal or external command,
operable program or batch file.

D:\python-getting-started>git add .

D:\python-getting-started>git commit -m "demo"
On branch main
Your branch is up-to-date with 'origin/main'.
nothing to commit, working directory clean

D:\python-getting-started>git push heroku main
Everything up-to-date

D:\python-getting-started>heroku open
```

```
D:\python-getting-started>git add .

D:\python-getting-started>git commit -m "demo"
On branch main
Your branch is up-to-date with 'origin/main'.
nothing to commit, working directory clean

D:\python-getting-started>git push heroku main
Everything up-to-date

D:\python-getting-started>heroku open
```

```
Administrator: Command Prompt

>>> import requests
Traceback (most recent call last):
  File "<console>", line 1, in <module>
ModuleNotFoundError: No module named 'requests'
>>> exit()

D:\python-getting-started>heroku run python manage.py shell
Running python manage.py shell on enigmatic-eyrie-96981... up, run.4968 (Free)
Python 3.10.2 (main, Jan 14 2022, 23:41:42) [GCC 9.3.0] on linux
Type "help", "copyright", "credits" or "license" for more information.
(InteractiveConsole)
>>> import requests
Traceback (most recent call last):
  File "<console>", line 1, in <module>
ModuleNotFoundError: No module named 'requests'
>>> exit()

D:\python-getting-started>
```

Perintah Heroku config untuk melihat config vars

```
Administrator: Command Prompt

D:\python-getting-started>heroku config
=== enigmatic-eyrie-96981 Config Vars
DATABASE_URL: postgres://unluskcp1wcrny:348b4aa1d38849e6b6e93afda842f09ce9954a6e5aa9253fa2efa6dddb6d3e02@ec2-54-156-110-139.compute-1.amazonaws.com:5432/d4ndlgnqfsmc3c
TIMES: 2

D:\python-getting-started>heroku addons

Add-on          Plan      Price  State
-----
heroku-postgresql (postgresql-opaque-72630)  hobby-dev  free   created
└─ as DATABASE

The table above shows add-ons and the attachments to the current app (enigmatic-eyrie-96981) or other apps.

D:\python-getting-started>heroku config
=== enigmatic-eyrie-96981 Config Vars
DATABASE_URL: postgres://unluskcp1wcrny:348b4aa1d38849e6b6e93afda842f09ce9954a6e5aa9253fa2efa6dddb6d3e02@ec2-54-156-110-139.compute-1.amazonaws.com:5432/d4ndlgnqfsmc3c
TIMES: 2

D:\python-getting-started>heroku pg
=== DATABASE_URL
Plan: Hobby-dev
Status: Available
Connections: 0/20
PG Version: 13.5
Created: 2022-02-28 12:33 UTC
Data Size: 8.0 MB/1.00 GB (In compliance)
```

## Perintah migrasi python

```
Administrator: Command Prompt
D:\python-getting-started>heroku run python manage.py migrate
Running python manage.py migrate on enigmatic-eyrie-96981... up, run.3218 (Free)
System check identified some issues:

WARNINGS:
hello.Greeting: (models.W042) Auto-created primary key used when not defining a primary key type, by default 'django.db.models.AutoField'.
      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'.

Operations to perform:
  Apply all migrations: admin, auth, contenttypes, hello, sessions
Running migrations:
  Applying contenttypes.0001_initial... OK
  Applying auth.0001_initial... OK
  Applying admin.0001_initial... OK
  Applying admin.0002_logentry_remove_auto_add... OK
  Applying admin.0003_logentry_add_action_flag_choices... OK
  Applying contenttypes.0002_remove_content_type_name... OK
  Applying auth.0002_alter_permission_name_max_length... OK
  Applying auth.0003_alter_user_email_max_length... OK
  Applying auth.0004_alter_user_username_opts... OK
  Applying auth.0005_alter_user_last_login_null... OK
  Applying auth.0006_require_contenttypes_0002... OK
  Applying auth.0007_alter_validators_add_error_messages... OK
  Applying auth.0008_alter_user_username_max_length... OK
  Applying auth.0009_alter_user_last_name_max_length... OK
  Applying auth.0010_alter_group_name_max_length... OK
  Applying auth.0011_update_proxy_permissions... OK
  Applying auth.0012_alter_user_first_name_max_length... OK
  Applying hello.0001_initial... OK
```

Administrator: Command Prompt

```
Applying hello.0001_initial... OK
Applying sessions.0001_initial... OK

:\python-getting-started>heroku pg:psql
-> Connecting to postgresql-opaque-72630
! The local psql command could not be located. For help installing psql, see
! https://devcenter.heroku.com/articles/heroku-postgresql#local-setup

:\python-getting-started>
```

## TUGAS

Administrator: Command Prompt

```
E:\>heroku login
heroku: Press any key to open up the browser to login or q to exit:
Opening browser to https://cli-auth.heroku.com/auth/cli/browser/062d41f8-39db-4d8e-b142-9ce56d834db7?requestor=SFMyNTY.g2gDbQAAAA8yMDMuMTkwLjI0Ni4yNDYuBgCoRthJfwFiAAFRgA.vCYoxNwpu12BuF6ppLQtCRf08ufMtPv_ORIIRei7pcw
Logging in... done
Logged in as andikarifki03@gmail.com

E:\>php -v
PHP 7.4.26 (cli) (built: Nov 16 2021 18:15:31) ( ZTS Visual C++ 2017 x64 )
Copyright (c) The PHP Group
Zend Engine v3.4.0, Copyright (c) Zend Technologies

E:\>composer -V
Composer version 2.1.14 2021-11-30 10:51:43

E:\>git --version
git version 2.8.1.windows.1

E:\>git clone https://github.com/heroku/php-getting-started.git
Cloning into 'php-getting-started'...
remote: Enumerating objects: 201, done.
remote: Counting objects: 100% (3/3), done.
remote: Compressing objects: 100% (3/3), done.
Receiving objects: 72% (145/201) (delta 0), pack-reused 198
Receiving objects: 100% (201/201), 59.28 KiB | 0 bytes/s, done.
Resolving deltas: 100% (86/86), done.
Checking connectivity... done.
```



```
Administrator: Command Prompt
remote: - Installing symfony/http-foundation (v3.4.47): Extracting archive
remote: - Installing symfony/event-dispatcher (v3.2.7): Extracting archive
remote: - Installing symfony/debug (v3.2.7): Extracting archive
remote: - Installing symfony/http-kernel (v3.2.7): Extracting archive
remote: - Installing pimple/pimple (v3.0.2): Extracting archive
remote: - Installing silex/silex (v2.0.4): Extracting archive
remote: - Installing twig/twig (v2.3.0): Extracting archive
remote: - Installing symfony/twig-bridge (v3.2.7): Extracting archive
remote: Generating optimized autoload files
remote: 3 packages you are using are looking for funding.
remote: Use the 'composer fund' command to find out more!
remote: -----> Preparing runtime environment...
remote: -----> Checking for additional extensions to install...
remote: -----> Discovering process types
remote: Procfile declares types -> web
remote: -----> Compressing...
remote: Done: 15.5M
remote: -----> Launching...
remote: Released v3
remote: https://gentle-atoll-50979.herokuapp.com/ deployed to Heroku
remote:
Scaling dynos... done, now running web at 1:Free

E:\php-getting-started>heroku ps:scale web=1

E:\php-getting-started>heroku ps:scale web=1
```

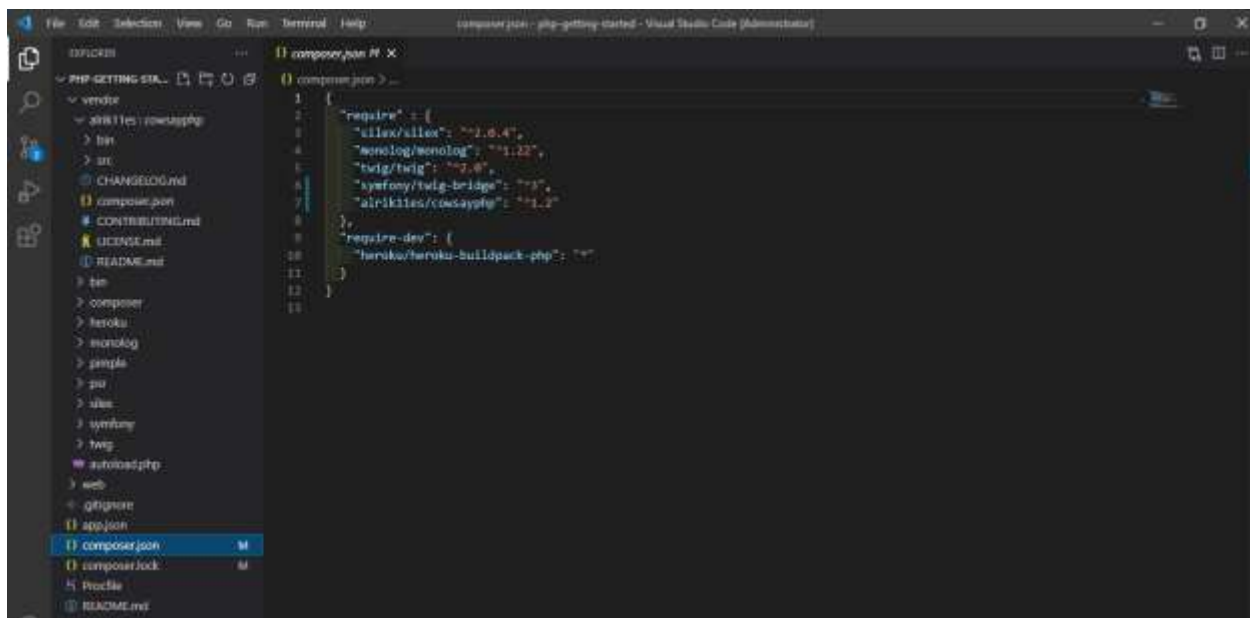
```
Administrator: Command Prompt
E:\php-getting-started>heroku logs --tail
2022-03-02T08:57:48.508606+00:00 app[api]: Initial release by user andikarifki03@gmail.com
2022-03-02T08:57:48.508606+00:00 app[api]: Release v1 created by user andikarifki03@gmail.com
2022-03-02T08:57:48.673747+00:00 app[api]: Enable Logplex by user andikarifki03@gmail.com
2022-03-02T08:57:48.673747+00:00 app[api]: Release v2 created by user andikarifki03@gmail.com
2022-03-02T08:57:59.000000+00:00 app[api]: Build started by user andikarifki03@gmail.com
2022-03-02T08:58:07.856519+00:00 app[api]: Deploy 3b59891c by user andikarifki03@gmail.com
2022-03-02T08:58:07.856519+00:00 app[api]: Release v3 created by user andikarifki03@gmail.com
2022-03-02T08:58:07.875486+00:00 app[api]: Scaled to web@1:Free by user andikarifki03@gmail.com
2022-03-02T08:58:08.000000+00:00 app[api]: Build succeeded
2022-03-02T08:58:09.037297+00:00 heroku[web.1]: Starting process with command `vendor/bin/heroku-php-a
pache2 web/`
2022-03-02T08:58:10.783011+00:00 app[web.1]: DOCUMENT_ROOT changed to 'web/'
2022-03-02T08:58:10.836736+00:00 app[web.1]: Detected 536870912 Bytes of RAM
2022-03-02T08:58:10.864782+00:00 app[web.1]: PHP memory_limit is 128M Bytes
2022-03-02T08:58:10.870964+00:00 app[web.1]: Starting php-fpm with 4 workers...
2022-03-02T08:58:11.035080+00:00 app[web.1]: Starting httpd...
2022-03-02T08:58:11.556049+00:00 heroku[web.1]: State changed from starting to up
2022-03-02T09:00:35.818627+00:00 app[web.1]: [2022-03-02 09:00:35] app.INFO: Matched route "{route}".
{"route":"GET_", "route_parameters":{"_controller":"[object] (Closure: {})", "_route":"GET_", "request_u
ri":"http://gentle-atoll-50979.herokuapp.com/", "method":"GET"} []
2022-03-02T09:00:35.818689+00:00 app[web.1]: [2022-03-02 09:00:35] app.DEBUG: > GET / [] []
2022-03-02T09:00:35.818689+00:00 app[web.1]: [2022-03-02 09:00:35] app.DEBUG: > GET / [] []
```

C:\> Administrator: Command Prompt

```

2022-03-02T08:58:09.037297+00:00 heroku[web.1]: Starting process with command `vendor/bin/heroku-php-a
apache2 web/`
2022-03-02T08:58:10.783011+00:00 app[web.1]: DOCUMENT_ROOT changed to 'web/'
2022-03-02T08:58:10.836736+00:00 app[web.1]: Detected 536870912 Bytes of RAM
2022-03-02T08:58:10.864782+00:00 app[web.1]: PHP memory_limit is 128M Bytes
2022-03-02T08:58:10.870964+00:00 app[web.1]: Starting php-fpm with 4 workers...
2022-03-02T08:58:11.035080+00:00 app[web.1]: Starting httpd...
2022-03-02T08:58:11.556049+00:00 heroku[web.1]: State changed from starting to up
2022-03-02T09:00:35.818627+00:00 app[web.1]: [2022-03-02 09:00:35] app.INFO: Matched route "{route}".
{"route":"GET","route_parameters":{"controller":"","object":{}}, Closure: {}"}, "_route":"GET"},"request_u
ri":"http://gentle-atoll-50979.herokuapp.com/", "method":"GET"} []
2022-03-02T09:00:35.818689+00:00 app[web.1]: [2022-03-02 09:00:35] app.DEBUG: > GET / [] []
2022-03-02T09:00:35.818782+00:00 app[web.1]: [2022-03-02 09:00:35] app.DEBUG: logging output. [] []
2022-03-02T09:00:35.841236+00:00 app[web.1]: [02-Mar-2022 09:00:35 UTC] PHP Deprecated: Unparenthesiz
ed `a ? b : c ? d : e` is deprecated. Use either `(a ? b : c) ? d : e` or `a ? b : (c ? d : e)` in /ap
p/vendor/twig/twig/lib/Twig/Node.php on line 42
2022-03-02T09:00:35.857611+00:00 app[web.1]: [2022-03-02 09:00:35] app.DEBUG: < 200 [] []
2022-03-02T09:00:35.858349+00:00 app[web.1]: 10.1.39.129 - - [02/Mar/2022:09:00:35 +0000] "GET / HTTP/
1.1" 200 6791 "-" Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Ch
rome/99.0.4844.51 Safari/537.36
2022-03-02T09:00:35.858738+00:00 heroku[router]: at=info method=GET path="/" host=gentle-atoll-50979.h
erokuapp.com request_id=ddf8e96d-602e-4fe9-962c-493152181f2b fwd="203.190.246.230" dyno=web.1 connect=
oms service=86ms status=200 bytes=6997 protocol=https
2022-03-02T09:00:36.168429+00:00 app[web.1]: 10.1.39.129 - - [02/Mar/2022:09:00:36 +0000] "GET /styles
heets/main.css HTTP/1.1" 200 605 "https://gentle-atoll-50979.herokuapp.com/" Mozilla/5.0 (Windows NT
10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/99.0.4844.51 Safari/537.36
2022-03-02T09:00:36.168725+00:00 heroku[router]: at=info method=GET path="/stylesheets/main.css" host=
gentle-atoll-50979.herokuapp.com request_id=80ef4e9d-dfe2-406a-9320-121502c3ad19 fwd="203.190.246.230"

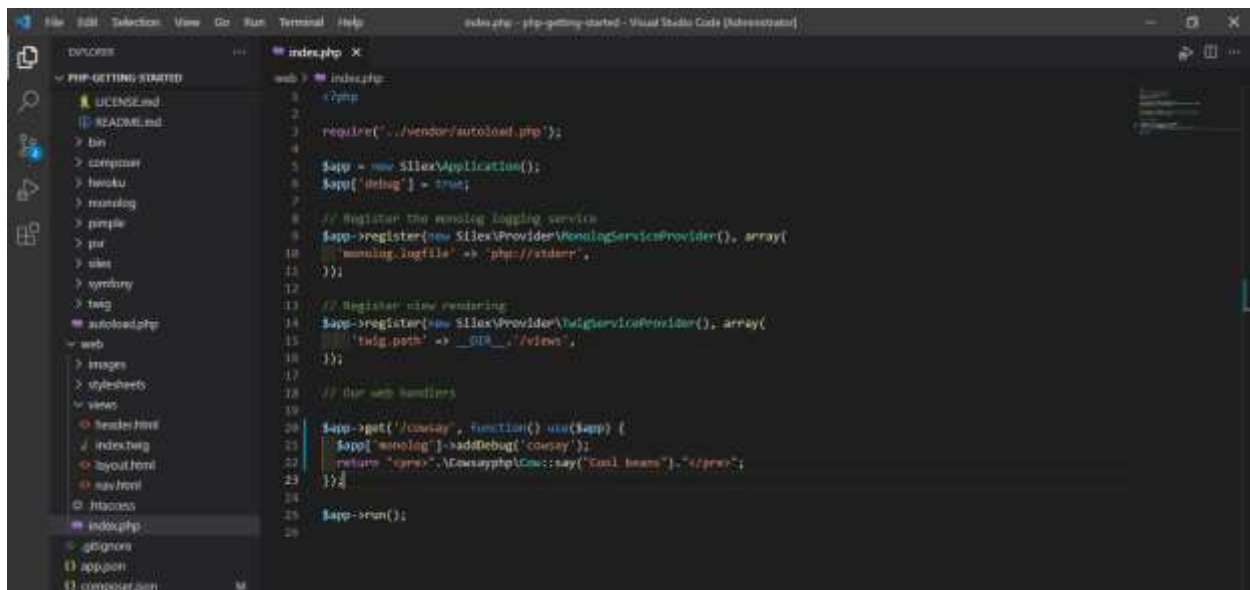
```





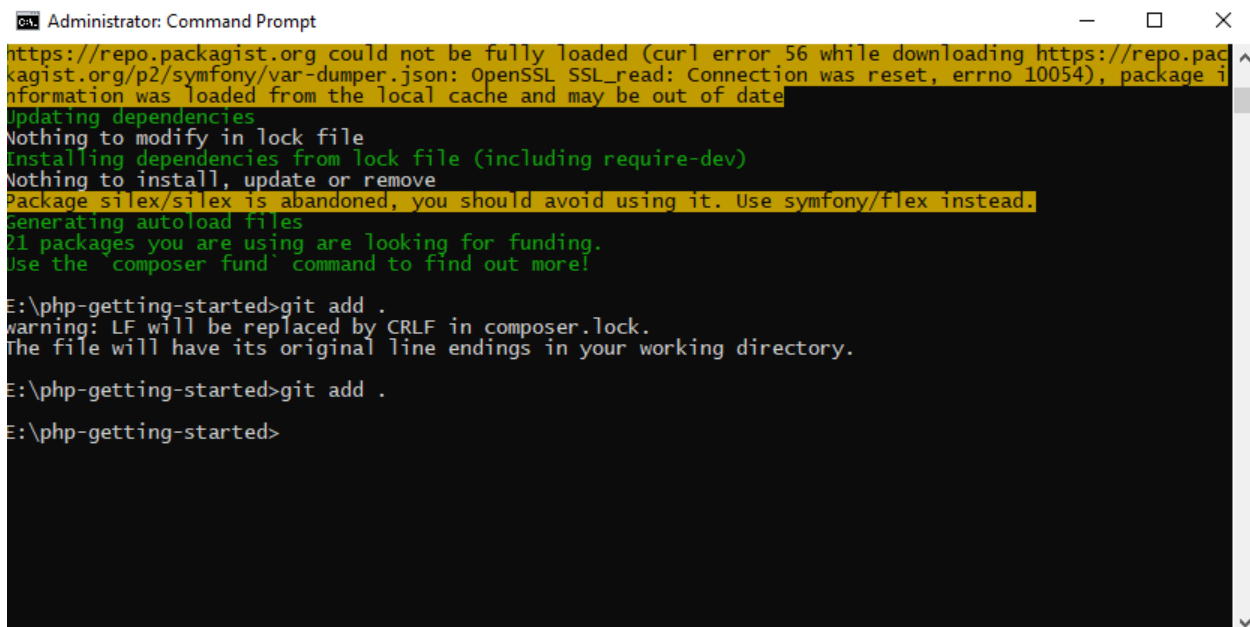
```
Administrator: Command Prompt
E:\php-getting-started>composer update
Loading composer repositories with package information
Updating dependencies
Lock file operations: 13 installs, 13 updates, 1 removal
- Removing symfony/polyfill-php70 (v1.20.0) web/ (1)
- Upgrading heroku/heroku-buildpack-php (v121 => v212)
- Upgrading monolog/monolog (1.22.1 => 1.26.1)
- Upgrading pimple/pimple (v3.0.2 => v3.5.0)
- Locking psr/container (2.0.2)
- Upgrading psr/log (1.0.2 => 1.1.4)
- Upgrading sillex/silex (v2.0.4 => v2.3.0)
- Upgrading symfony/debug (v3.2.7 => v4.4.37)
- Locking symfony/deprecation-contracts (v2.5.0)
- Locking symfony/error-handler (v4.4.37)
- Upgrading symfony/event-dispatcher (v3.2.7 => v4.4.37)
- Locking symfony/event-dispatcher-contracts (v1.1.11)
- Locking symfony/http-client-contracts (v2.5.0)
- Upgrading symfony/http-foundation (v3.4.47 => v4.4.38)
- Upgrading symfony/http-kernel (v3.2.7 => v4.4.38)
- Locking symfony/mime (v5.4.3)
- Locking symfony/polyfill-ctype (v1.24.0)
- Locking symfony/polyfill-intl-idn (v1.24.0)
- Locking symfony/polyfill-intl-normalizer (v1.24.0)
- Upgrading symfony/polyfill-mbstring (v1.23.1 => v1.24.0)
- Locking symfony/polyfill-php72 (v1.24.0)
- Locking symfony/polyfill-php73 (v1.24.0)
- Locking symfony/polyfill-php80 (v1.24.0)
- Upgrading symfony/routing (v3.2.7 => v4.4.37)
```

```
Administrator: Command Prompt
E:\php-getting-started>composer require alrik11es/cowsayphp
Using version ^1.2 for alrik11es/cowsayphp
./composer.json has been updated
Running composer update alrik11es/cowsayphp
Loading composer repositories with package information
Updating dependencies
Lock file operations: 1 install, 0 updates, 0 removals
- Locking alrik11es/cowsayphp (1.2.0)
Writing lock file
Installing dependencies from lock file (including require-dev)
Package operations: 1 install, 0 updates, 0 removals
- Downloading alrik11es/cowsayphp (1.2.0)
- Installing alrik11es/cowsayphp (1.2.0): Extracting archive
Package sillex/silex is abandoned, you should avoid using it. Use symfony/flex instead.
Generating autoload files
21 packages you are using are looking for funding.
Use the composer fund command to find out more!
E:\php-getting-started>
```



The screenshot shows the Visual Studio Code interface with a file explorer on the left and a code editor on the right. The file explorer shows a project structure for 'php-getting-started' with folders like 'bin', 'composer', 'htdocs', 'monolog', 'twig', 'autoload.php', 'web', 'images', 'stylesheets', 'views', and 'resources'. The code editor displays the 'index.php' file with the following content:

```
1 <?php
2
3 require('.../vendor/autoload.php');
4
5 $app = new Sillex\Application();
6 $app['debug'] = true;
7
8 // Register the monolog logging service
9 $app->register(new Sillex\Provider\MonologServiceProvider(), array(
10     'monolog.logfile' => 'php://stderr',
11 ));
12
13 // Register view rendering
14 $app->register(new Sillex\Provider\TwigServiceProvider(), array(
15     'twig.path' => __DIR__.'/views',
16 ));
17
18 // Run web handlers
19
20 $app->get('/corsay', function() use($app) {
21     $app['monolog']->addDebug('corsay');
22     return "corsay", $app['twig']->render('corsay.html', ['name' => 'Cool beans']);
23 });
24
25 $app->run();
26
```



The screenshot shows a Windows Command Prompt window with the following output:

```
Administrator: Command Prompt
https://repo.packagist.org could not be fully loaded (curl error 56 while downloading https://repo.packagist.org/p2/symfony/var-dumper.json: OpenSSL SSL_read: Connection was reset, errno 10054), package information was loaded from the local cache and may be out of date
Updating dependencies
Nothing to modify in lock file
Installing dependencies from lock file (including require-dev)
Nothing to install, update or remove
Package sillex/sillex is abandoned, you should avoid using it. Use symfony/flex instead.
Generating autoload files
21 packages you are using are looking for funding.
Use the `composer fund` command to find out more!

E:\php-getting-started>git add .
warning: LF will be replaced by CRLF in composer.lock.
The file will have its original line endings in your working directory.

E:\php-getting-started>git add .

E:\php-getting-started>
```

```
Administrator: Command Prompt
4cd3067] Demo
warning: LF will be replaced by CRLF in composer.lock.
The file will have its original line endings in your working directory.
3 files changed, 1440 insertions(+), 301 deletions(-)

E:\php-getting-started>git push heroku main
Counting objects: 6, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (6/6), done.
Writing objects: 100% (6/6), 8.14 KiB | 0 bytes/s, done.
Total 6 (delta 4), reused 0 (delta 0)
remote: Compressing source files... done.
remote: Building source:
remote:
remote: -----> Building on the Heroku-20 stack
remote: -----> Using buildpack: heroku/php
remote: -----> PHP app detected
remote: -----> Bootstrapping...
remote: -----> Preparing platform package installation...
remote: NOTICE: No runtime required in composer.json; requirements
remote: from dependencies in composer.lock will be used for selection
remote: -----> Installing platform packages...
remote: - php (8.1.3)
remote: - apache (2.4.52)
remote: - composer (2.2.7)
remote: - nginx (1.20.2)
remote: -----> Installing dependencies...
remote: Composer version 2.2.7 2022-02-25 11:12:27
```

```
Administrator: Command Prompt
remote: Done: 16.6M
remote: -----> Launching...
remote: Released v4
remote: https://gentle-atoll-50979.herokuapp.com/ deployed to Heroku
remote: Verifying deploy... done.
To https://git.heroku.com/gentle-atoll-50979.git
3b59891..4cd3067 main -> main

E:\php-getting-started>heroku open cowsay
E:\php-getting-started>
```



C:\> Administrator: Command Prompt

```
E:\>cd php-getting-started
```

```
E:\php-getting-started>heroku addons:create papertrail
```

```
Creating papertrail on ☐ gentle-atoll-50979... !
```

```
! Please verify your account to install this add-on plan (please enter a credit c  
ormation, see
```

```
! https://devcenter.heroku.com/categories/billing Verify now at https://heroku.co
```

```
E:\php-getting-started>heroku addons
```

```
No add-ons for app gentle-atoll-50979.
```

```
E:\php-getting-started>heroku addons:open papertrail
```

```
! Couldn't find that add on.
```

```
E:\php-getting-started>
```

C:\> Administrator: Command Prompt

```
! https://devcenter.heroku.com/categories/billing Verify now at https://heroku.com/verify
```

```
E:\php-getting-started>heroku addons
```

```
No add-ons for app gentle-atoll-50979.
```

```
E:\php-getting-started>heroku addons:open papertrail
```

```
! Couldn't find that add on.
```

```
E:\php-getting-started>heroku run "php -a"
```

```
Running php -a on ☐ gentle-atoll-50979... up, run.3997 (Free)
```

```
Interactive shell
```

```
php > ls
```

```
php > exit
```

```
E:\php-getting-started>
```

Administrator: Command Prompt

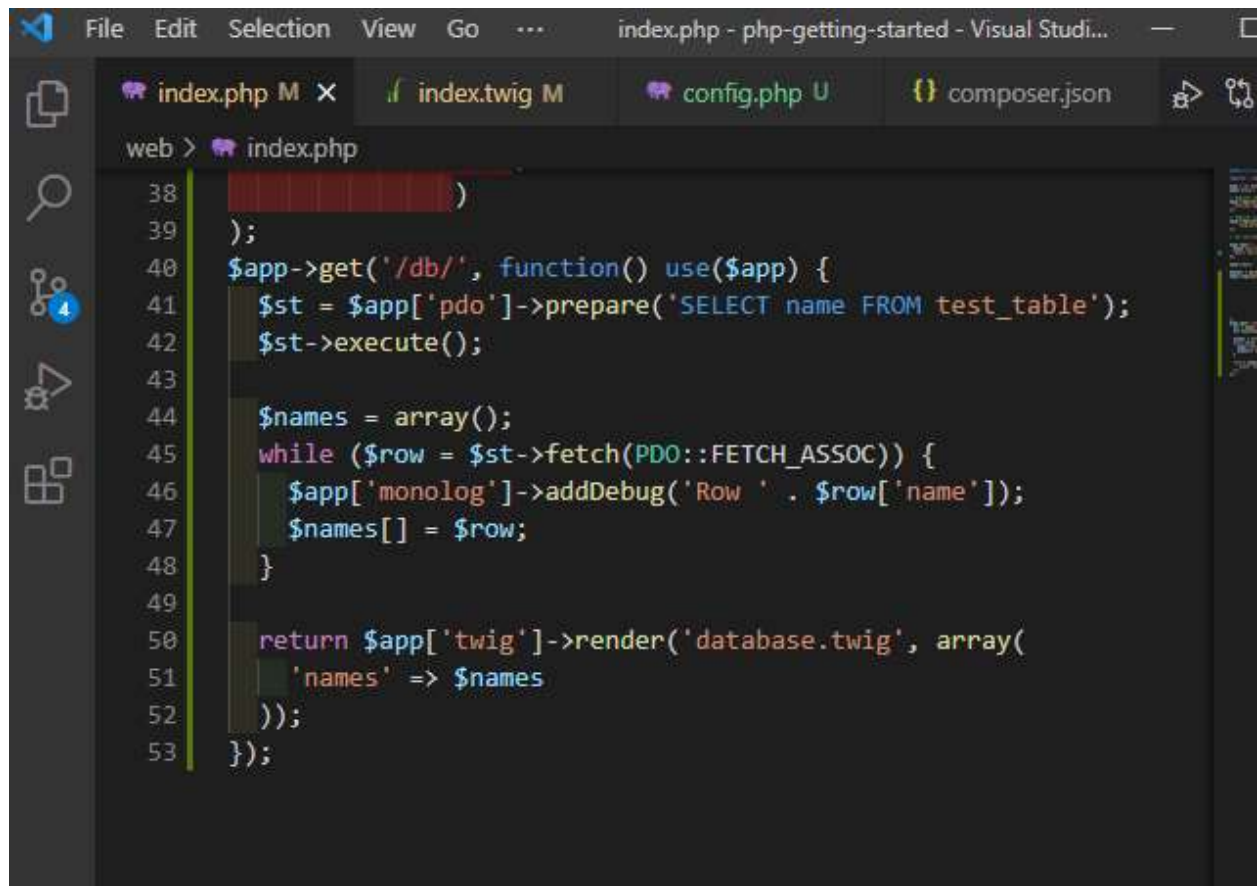
```
Setting TIMES and restarting  gentle-atoll-50979... done, v5
TIMES: 20

Creating heroku-postgresql:hobby-dev on  gentle-atoll-50979... free
Database has been created and is available
! This database is empty. If upgrading, you can transfer
! data from another database with pg:copy
Created postgresql-infinite-59136 as DATABASE_URL=postgresql:hobby-dev
Use heroku addons:docs heroku-postgresql to view documentation

E:\php-getting-started>composer require csanquer/pdo-service-provider=~1.1dev
./composer.json has been updated
Running composer update csanquer/pdo-service-provider
Loading composer repositories with package information
Updating dependencies
Lock file operations: 2 installs, 0 updates, 0 removals
  - Locking csanquer/pdo-service-provider (dev-master 2b07fd8)
  - Locking symfony/options-resolver (v3.0.9)
Writing lock file
Installing dependencies from lock file (including require-dev)
Package operations: 2 installs, 0 updates, 0 removals
  - Downloading symfony/options-resolver (v3.0.9)
  - Downloading csanquer/pdo-service-provider (dev-master 2b07fd8)
  - Installing symfony/options-resolver (v3.0.9): Extracting archive
  - Installing csanquer/pdo-service-provider (dev-master 2b07fd8): Extracting archive
Package silex/silex is abandoned, you should avoid using it. Use symfony/flex instead.
Generating autoload files
21 packages you are using are looking for funding.
Use the composer fund command to find out more!
```

web > config.php

```
1  <?php
2
3  $app->get('/db/', function() use($app) {
4      $st = $app['pdo']->prepare('SELECT name FROM test_table');
5      $st->execute();
6
7      $names = array();
8      while ($row = $st->fetch(PDO::FETCH_ASSOC)) {
9          $app['monolog']->addDebug('Row ' . $row['name']);
10         $names[] = $row;
11     }
12
13     return $app['twig']->render('database.twig', array(
14         'names' => $names
15     ));
16 });
```



```
File Edit Selection View Go ... index.php - php-getting-started - Visual Studi...
index.php M x index.twig M config.php U {} composer.json
web > index.php
38     )
39 );
40 $app->get('/db/', function() use($app) {
41     $st = $app['pdo']->prepare('SELECT name FROM test_table');
42     $st->execute();
43
44     $names = array();
45     while ($row = $st->fetch(PDO::FETCH_ASSOC)) {
46         $app['monolog']->addDebug('Row ' . $row['name']);
47         $names[] = $row;
48     }
49
50     return $app['twig']->render('database.twig', array(
51         'names' => $names
52     ));
53 });
```

```
index.php M index.twig M X config.php U {} co
web > views > index.twig
1 {% extends "layout.html" %}
2
3 {% block content %}
4 <p>Got these rows from the database:</p>
5
6 <ul>
7 {% for n in names %}
8   <li>{{ n.name }} </li>
9 {% else %}
10   <li>Nameless!</li>
11 {% endfor %}
12 </ul>
13
14 {% endblock %}
```

```
C:\ Administrator: Command Prompt
E:\php-getting-started>git add .
warning: LF will be replaced by CRLF in composer.lock.
The file will have its original line endings in your working directory.
E:\php-getting-started>git add .
E:\php-getting-started>git commit -m "added database access"
[main warning: LF will be replaced by CRLF in composer.lock.
The file will have its original line endings in your working directory.
a10d188] added database access
warning: LF will be replaced by CRLF in composer.lock.
The file will have its original line endings in your working directory.
2 files changed, 118 insertions(+), 3 deletions(-)
E:\php-getting-started>git push heroku main
Counting objects: 4, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (4/4), done.
```

```
4cd3067..a10d188 main -> main
E:\php-getting-started>heroku pg:psql
--> Connecting to postgresql-infinite-59136
! The local psql command could not be located. For help installing psql
! https://devcenter.heroku.com/articles/heroku-postgresql#local-setup
E:\php-getting-started>
```

