

Deployment on Flask

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Batch code: LISUM04

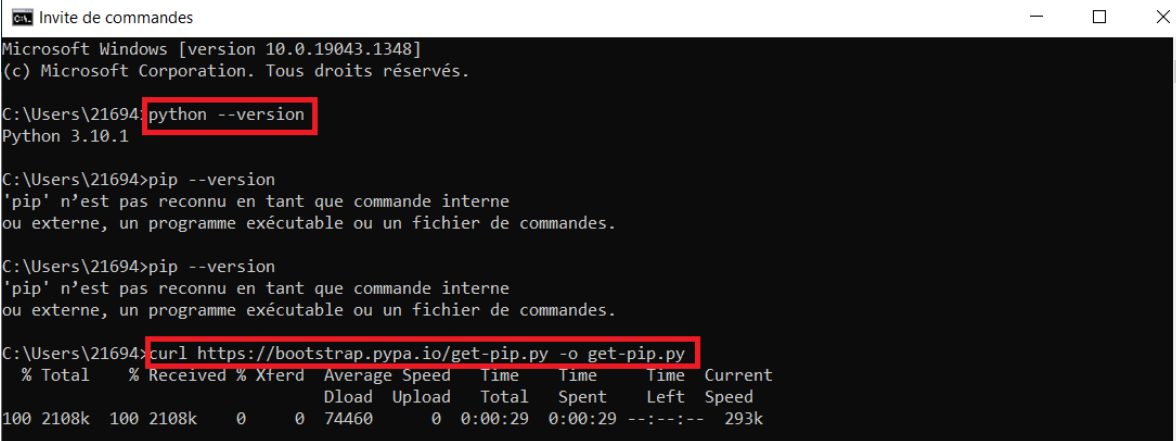
Submission date: 19/12/2021

Submitted to: Data Glacier

Step 1: Install PIP on Windows

- a. download the **get-pip.py** file

```
curl https://bootstrap.pypa.io/get-pip.py -o get-pip.py
```



```
Invite de commandes
Microsoft Windows [version 10.0.19043.1348]
(c) Microsoft Corporation. Tous droits réservés.

C:\Users\21694>python --version
Python 3.10.1

C:\Users\21694>pip --version
'pip' n'est pas reconnu en tant que commande interne
ou externe, un programme exécutable ou un fichier de commandes.

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'pip' n'est pas reconnu en tant que commande interne
ou externe, un programme exécutable ou un fichier de commandes.

C:\Users\21694>curl https://bootstrap.pypa.io/get-pip.py -o get-pip.py
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left   Speed
100 2108k  100 2108k    0     0  74460      0  0:00:29  0:00:29 --:--:-- 293k
```

b. install PIP

```
python get-pip.py
```

```
Invite de commandes

C:\Users\21694>python get-pip.py
Collecting pip
  Downloading pip-21.3.1-py3-none-any.whl (1.7 MB)
    |#####| 1.7 MB 467 kB/s
Collecting setuptools
  Downloading setuptools-59.7.0-py3-none-any.whl (952 kB)
    |#####| 952 kB 547 kB/s
Collecting wheel
  Downloading wheel-0.37.0-py2.py3-none-any.whl (35 kB)
Installing collected packages: wheel, setuptools, pip
Successfully installed pip-21.3.1 setuptools-59.7.0 wheel-0.37.0

C:\Users\21694>
```

c. You can view the contents of your current directory

```
dir
```

```
Invite de commandes

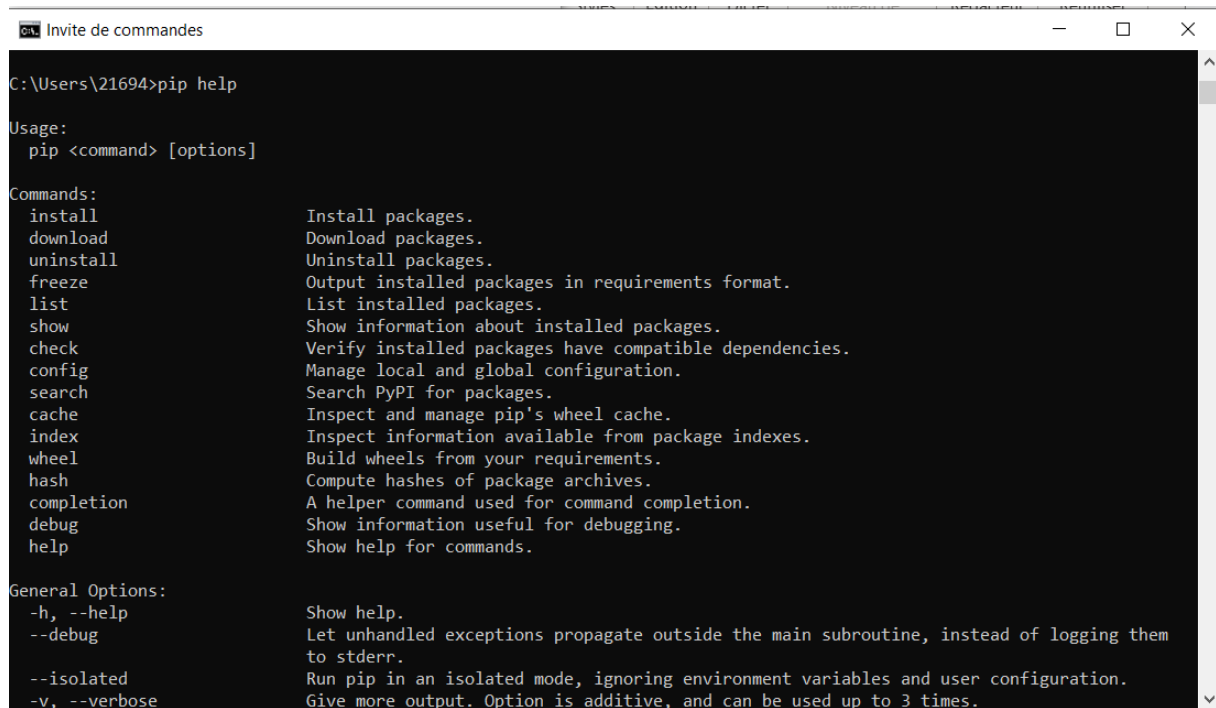
C:\Users\21694>dir
Le volume dans le lecteur C s'appelle Windows
Le numéro de s rie du volume est 0667-C20A

R pertoire de C:\Users\21694

19/12/2021 12:20 PM <DIR> .
19/12/2021 12:20 PM <DIR> ..
27/08/2021 09:40 AM <DIR> .anaconda
21/11/2021 12:48 PM 4 184 .bash_history
21/11/2021 09:15 PM <DIR> .conda
17/08/2021 09:33 PM 42 .condarc
16/08/2021 09:45 PM <DIR> .continuum
03/02/2021 09:38 AM <DIR> .fop
22/10/2021 11:39 AM 237 .gitconfig
25/08/2021 02:45 PM <DIR> .idlrc
15/11/2021 03:08 PM <DIR> .ipynb_checkpoints
16/08/2021 09:47 PM <DIR> .ipython
27/08/2021 09:58 PM <DIR> .jupyter
16/09/2021 09:36 PM 20 .lessht
27/08/2021 02:59 PM <DIR> .matplotlib
27/08/2021 03:00 PM <DIR> .spyder-py3
17/10/2021 08:44 AM <DIR> 0- Data Analysis with Python (FreeCodeCamp)
09/11/2021 09:52 AM <DIR> 0- Data Glacier project week 2
14/11/2021 02:43 PM <DIR> 0- Frederick covid
22/11/2021 07:38 PM <DIR> 0- Group Project Bank Marketing
22/11/2021 05:12 PM <DIR> 0-machine learning
25/10/2021 08:49 PM 72 991 1.1 Section 6.ipynb
13/10/2021 06:03 PM 12 291 20-hour challenge Pandas Dataframes-Copy1.ipynb
16/10/2021 04:33 PM 12 291 20-hour challenge Pandas Dataframes.ipynb
13/10/2021 06:03 PM 576 20-hour challenge Pandas exercise-Copy1.ipynb
18/09/2021 09:19 PM 576 20-hour challenge Pandas exercise.ipynb
13/10/2021 06:03 PM 11 861 20-hour challenge Pandas-Copy1.ipynb
18/09/2021 09:14 PM 11 861 20-hour challenge Pandas.ipynb
13/10/2021 06:03 PM 37 396 20-hours Challenge Numpy-Copy1.ipynb
17/09/2021 12:07 PM 37 396 20-hours Challenge Numpy.ipynb
15/10/2021 08:48 PM 72 991 215CCT-L1Py
10/10/2021 09:55 AM 3 314 abaqus_2018.gpr
27/08/2021 09:52 AM <DIR> anaconda3
14/12/2021 09:44 AM 191 arbre-analyste.json
18/09/2020 06:23 PM <DIR> Contacts
17/11/2021 06:13 PM 3 656 Credit Risk Modeling - LGD and EAD Models - With Comments - 10-1.ipynb
18/12/2021 07:25 PM <DIR> Desktop
27/08/2021 03:01 PM 601 Desktop-checkpoint.ipynb
27/08/2021 03:06 PM 1 240 Desktop.ipynb
12/10/2021 11:39 AM <DIR> Documents
19/12/2021 12:58 PM <DIR> Downloads
10/10/2021 11:03 AM <DIR> Dropbox
18/09/2020 06:23 PM <DIR> Favorites
```

d. Verify installation

pip help



```
C:\Users\21694>pip help

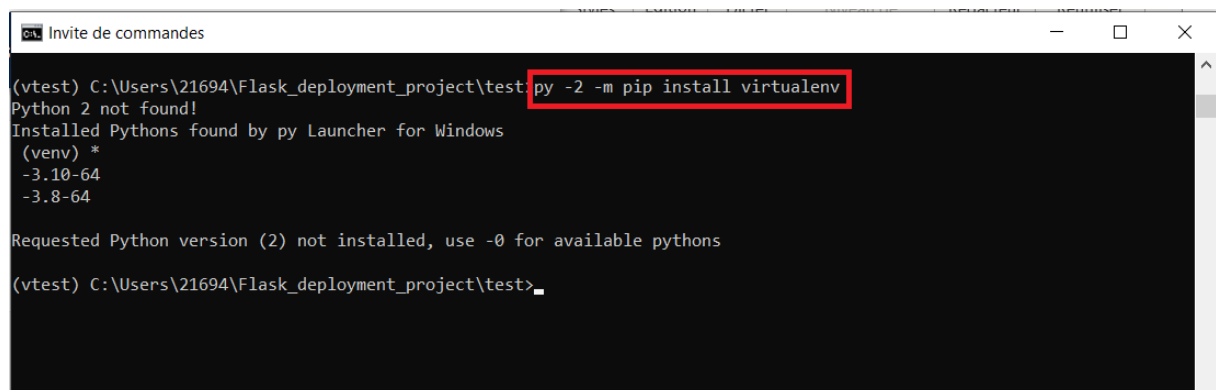
Usage:
  pip <command> [options]

Commands:
  install           Install packages.
  download          Download packages.
  uninstall         Uninstall packages.
  freeze           Output installed packages in requirements format.
  list             List installed packages.
  show             Show information about installed packages.
  check            Verify installed packages have compatible dependencies.
  config           Manage local and global configuration.
  search          Search PyPI for packages.
  cache           Inspect and manage pip's wheel cache.
  index          Inspect information available from package indexes.
  wheel          Build wheels from your requirements.
  hash           Compute hashes of package archives.
  completion     A helper command used for command completion.
  debug         Show information useful for debugging.
  help          Show help for commands.

General Options:
  -h, --help           Show help.
  --debug             Let unhandled exceptions propagate outside the main subroutine, instead of logging them to stderr.
  --isolated          Run pip in an isolated mode, ignoring environment variables and user configuration.
  -v, --verbose       Give more output. Option is additive, and can be used up to 3 times.
```

Step 2 : Install Virtual Environment

py -2 -m pip install virtualenv



```
(vtest) C:\Users\21694\Flask_deployment_project\test>py -2 -m pip install virtualenv
Python 2 not found!
Installed Python's found by py Launcher for Windows
(venv) *
-3.10-64
-3.8-64

Requested Python version (2) not installed, use -0 for available python's

(vtest) C:\Users\21694\Flask_deployment_project\test>_
```

Step 3 : Create an environment

- Make a separate directory for your project:
- Move into the directory:
- Create an environment
- List the folder structure using the **dir** command:

```
C:\Users\21694\Flask_deployment_project>mkdir test
C:\Users\21694\Flask_deployment_project>cd test
C:\Users\21694\Flask_deployment_project\test>py -3 -m venv vtest
C:\Users\21694\Flask_deployment_project\test>dir *test*
Le volume dans le lecteur C s'appelle Windows
Le numéro de série du volume est 0667-C20A

Répertoire de C:\Users\21694\Flask_deployment_project\test

19/12/2021  02:16 PM    <DIR>          vtest
            0 fichier(s)                0 octets
            1 Rép(s) 108 736 233 472 octets libres
```

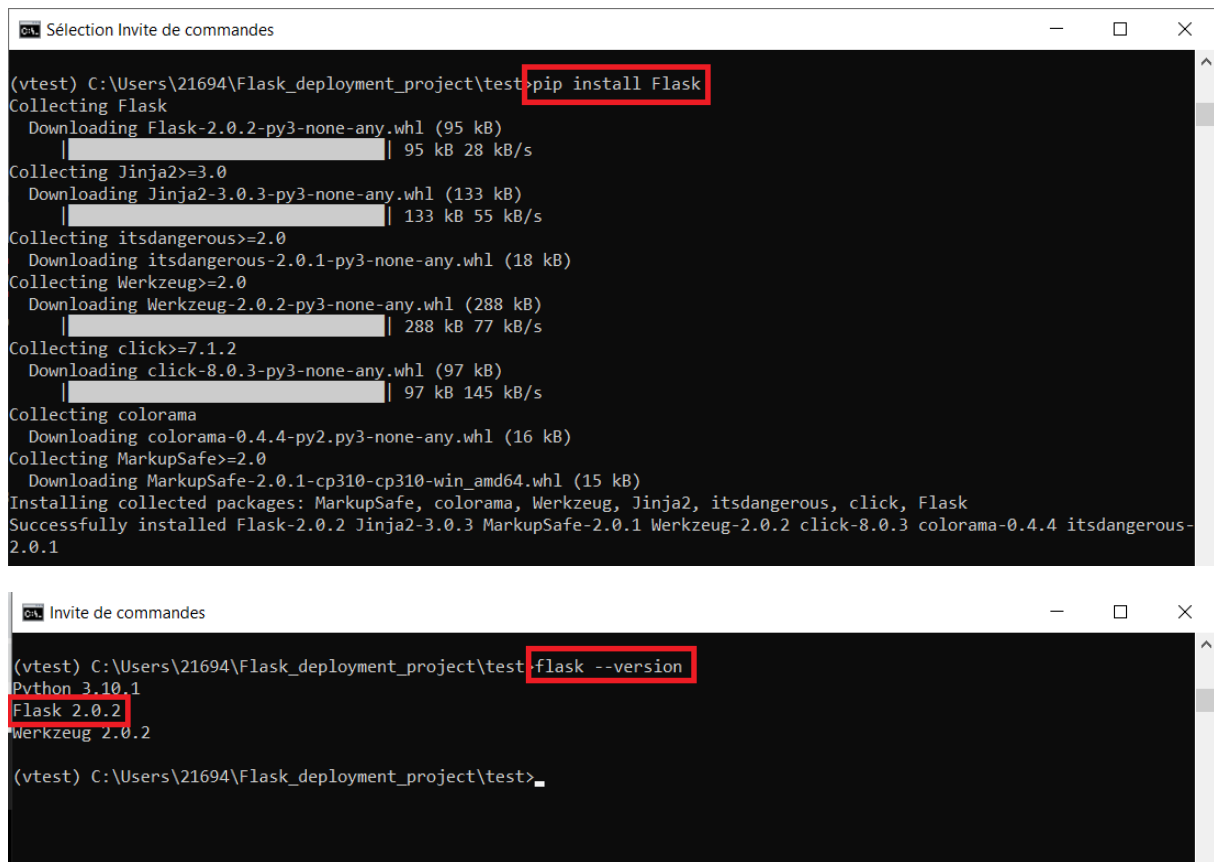
Step 4 : Activate the environment

```
Sélection Invite de commandes

C:\Users\21694\Flask_deployment_project\test>vtest\Scripts\activate

(vtest) C:\Users\21694\Flask_deployment_project\test>pip install Flask
Collecting Flask
  Downloading Flask-2.0.2-py3-none-any.whl (95 kB)
    |#####| 95 kB 28 kB/s
Collecting Jinja2>=3.0
  Downloading Jinja2-3.0.3-py3-none-any.whl (133 kB)
    |#####| 133 kB 55 kB/s
Collecting itsdangerous>=2.0
  Downloading itsdangerous-2.0.1-py3-none-any.whl (18 kB)
Collecting Werkzeug>=2.0
  Downloading Werkzeug-2.0.2-py3-none-any.whl (288 kB)
    |#####| 288 kB 77 kB/s
Collecting click>=7.1.2
  Downloading click-8.0.3-py3-none-any.whl (97 kB)
    |#####| 97 kB 145 kB/s
Collecting colorama
  Downloading colorama-0.4.4-py2.py3-none-any.whl (16 kB)
Collecting MarkupSafe>=2.0
  Downloading MarkupSafe-2.0.1-cp310-cp310-win_amd64.whl (15 kB)
Installing collected packages: MarkupSafe, colorama, Werkzeug, Jinja2, itsdangerous, click, Flask
Successfully installed Flask-2.0.2 Jinja2-3.0.3 MarkupSafe-2.0.1 Werkzeug-2.0.2 click-8.0.3 colorama-0.4.4 itsdangerous-2.0.1
```

Step 5 : Install flask



The first screenshot shows a Windows command prompt window titled "Sélection Invite de commandes". The user is in the directory `C:\Users\21694\Flask_deployment_project\test` and has entered the command `pip install Flask`. The output shows the installation progress for Flask and its dependencies: Jinja2, itsdangerous, Werkzeug, click, colorama, and MarkupSafe. The second screenshot shows the same command prompt window after the installation. The user has entered the command `flask --version`, and the output displays the installed versions: `Python 3.10.1`, `Flask 2.0.2`, and `Werkzeug 2.0.2`.

```
(vtest) C:\Users\21694\Flask_deployment_project\test>pip install Flask
Collecting Flask
  Downloading Flask-2.0.2-py3-none-any.whl (95 kB)
    | 95 kB 28 kB/s
Collecting Jinja2>=3.0
  Downloading Jinja2-3.0.3-py3-none-any.whl (133 kB)
    | 133 kB 55 kB/s
Collecting itsdangerous>=2.0
  Downloading itsdangerous-2.0.1-py3-none-any.whl (18 kB)
Collecting Werkzeug>=2.0
  Downloading Werkzeug-2.0.2-py3-none-any.whl (288 kB)
    | 288 kB 77 kB/s
Collecting click>=7.1.2
  Downloading click-8.0.3-py3-none-any.whl (97 kB)
    | 97 kB 145 kB/s
Collecting colorama
  Downloading colorama-0.4.4-py2.py3-none-any.whl (16 kB)
Collecting MarkupSafe>=2.0
  Downloading MarkupSafe-2.0.1-cp310-cp310-win_amd64.whl (15 kB)
Installing collected packages: MarkupSafe, colorama, Werkzeug, Jinja2, itsdangerous, click, Flask
Successfully installed Flask-2.0.2 Jinja2-3.0.3 MarkupSafe-2.0.1 Werkzeug-2.0.2 click-8.0.3 colorama-0.4.4 itsdangerous-2.0.1

(vtest) C:\Users\21694\Flask_deployment_project\test>flask --version
Python 3.10.1
Flask 2.0.2
Werkzeug 2.0.2

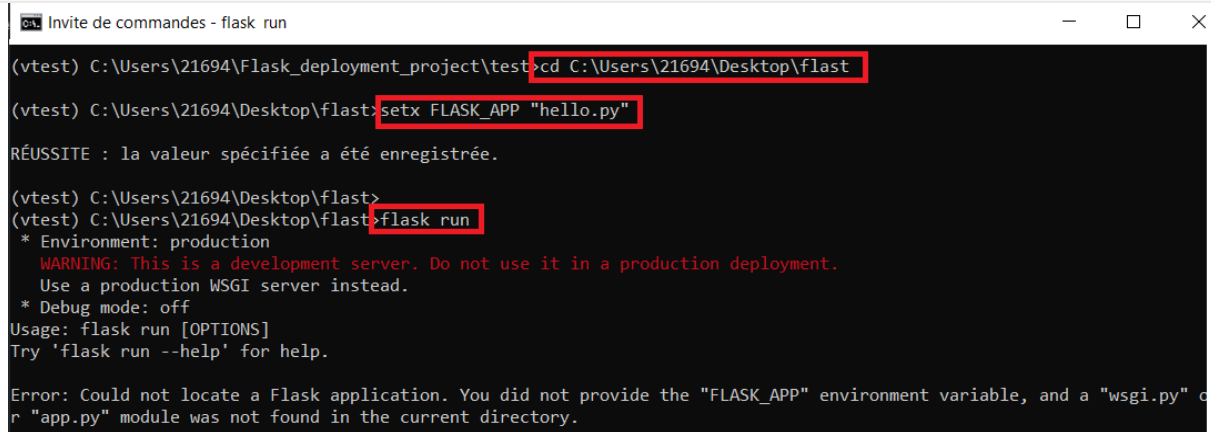
(vtest) C:\Users\21694\Flask_deployment_project\test>
```

Step 6 : Flask application example

```
from flask import Flask
app = Flask(__name__)
@app.route('/')
def hello_world():
    return 'Hello world!'
```

Step 7 : Set FLASK_APP environment variable

```
setx FLASK_APP "hello.py"
```



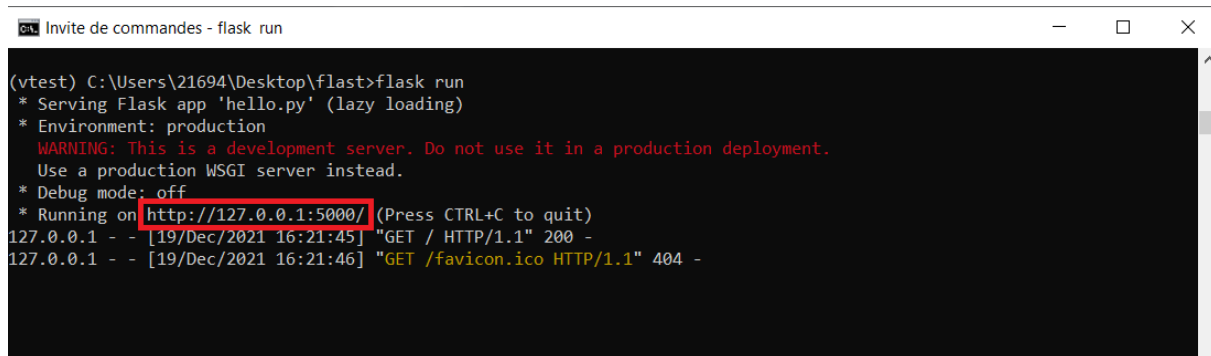
```
Invite de commandes - flask run

(vtest) C:\Users\21694\Flask_deployment_project\test>cd C:\Users\21694\Desktop\flask
(vtest) C:\Users\21694\Desktop\flask>setx FLASK_APP "hello.py"
RÉUSSITE : la valeur spécifiée a été enregistrée.

(vtest) C:\Users\21694\Desktop\flask>
(vtest) C:\Users\21694\Desktop\flask>flask run
* Environment: production
  WARNING: This is a development server. Do not use it in a production deployment.
  Use a production WSGI server instead.
* Debug mode: off
Usage: flask run [OPTIONS]
Try 'flask run --help' for help.

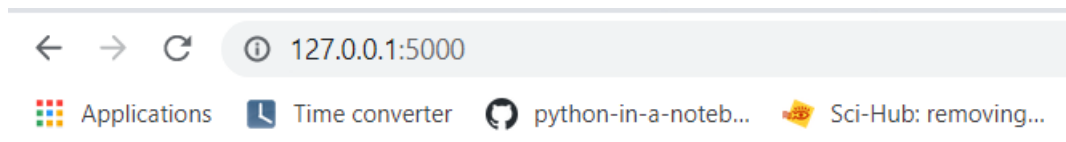
Error: Could not locate a Flask application. You did not provide the "FLASK_APP" environment variable, and a "wsgi.py" or "app.py" module was not found in the current directory.
```

Step 8: Run the flask application



```
Invite de commandes - flask run

(vtest) C:\Users\21694\Desktop\flask>flask run
* Serving Flask app 'hello.py' (lazy loading)
* Environment: production
  WARNING: This is a development server. Do not use it in a production deployment.
  Use a production WSGI server instead.
* Debug mode: off
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
127.0.0.1 - - [19/Dec/2021 16:21:45] "GET / HTTP/1.1" 200 -
127.0.0.1 - - [19/Dec/2021 16:21:46] "GET /favicon.ico HTTP/1.1" 404 -
```



Hello world!