To run git in CLI

> Go to git folder in Program Files then run first > git-cmd-exe

> the command will not run if you run it right away outside its folder


```
HTTPS    SSH    GitHub CLI
Administrator: Command Prompt - git-cmd.exe                                                    —    □    ✕
01/09/2025   10:13 am    <DIR>           usr
              7 File(s)       6,077,827 bytes
              9 Dir(s)    3,310,882,816 bytes free

C:\Program Files\Git>git --version
'git' is not recognized as an internal or external command,
operable program or batch file.

C:\Program Files\Git>git --version
'git' is not recognized as an internal or external command,
operable program or batch file.

C:\Program Files\Git>git-cmd.exe

C:\Program Files\Git>git clone https://github.com/NatNextWork1/nextwork-security-secretsmanager/blob/main/app.py
Cloning into 'app.py'...
fatal: repository 'https://github.com/NatNextWork1/nextwork-security-secretsmanager/blob/main/app.py/' not found

C:\Program Files\Git>git clone https://github.com/NatNextWork1/nextwork-security-secretsmanager.git
Cloning into 'nextwork-security-secretsmanager'...
remote: Enumerating objects: 21, done.
remote: Counting objects: 100% (11/11), done.
remote: Compressing objects: 100% (11/11), done.
remote: Total 21 (delta 6), reused 0 (delta 0), pack-reused 10 (from 1)
Receiving objects: 100% (21/21), 6.24 KiB | 6.24 MiB/s, done.
Resolving deltas: 100% (6/6), done.
```
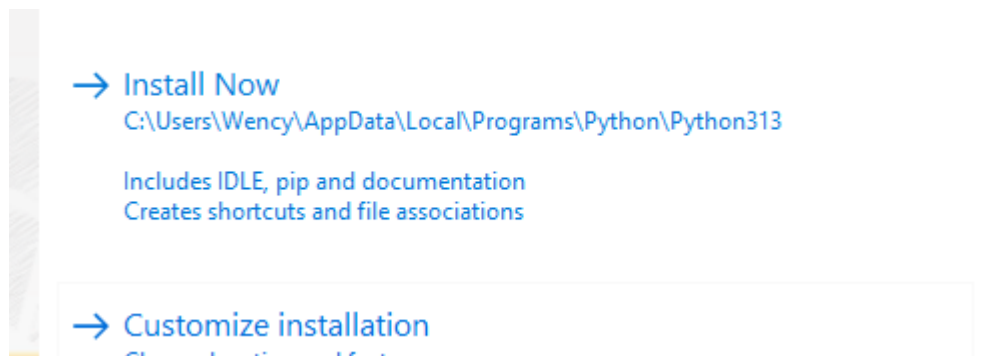
```
 Directory of C:\Program Files\Git

01/09/2025   10:17 am    <DIR>           .
01/09/2025   10:13 am    <DIR>           ..
01/09/2025   10:13 am    <DIR>           bin
01/09/2025   10:13 am    <DIR>           cmd
01/09/2025   10:13 am    <DIR>           dev
01/09/2025   10:13 am    <DIR>           etc
19/08/2025   08:53 am          138,656 git-bash.exe
19/08/2025   08:53 am          138,128 git-cmd.exe
19/08/2025   09:04 am           18,765 LICENSE.txt
01/09/2025   10:13 am    <DIR>           mingw64
01/09/2025   10:17 am    <DIR>           nextwork-security-secretsmanager
19/08/2025   09:05 am          286,359 ReleaseNotes.html
01/09/2025   10:13 am    <DIR>           tmp
01/09/2025   10:13 am        1,785,948 unins000.dat
01/09/2025   10:12 am        3,684,608 unins000.exe
01/09/2025   10:13 am           25,363 unins000.msg
01/09/2025   10:13 am    <DIR>           usr
              7 File(s)       6,077,827 bytes
             10 Dir(s)    3,310,362,624 bytes free

C:\Program Files\Git>
```

→ Install Now
C:\Users\Wency\AppData\Local\Programs\Python\Python313

Includes IDLE, pip and documentation
Creates shortcuts and file associations

→ Customize installation

This is what you will do if Python's virtual environment is with error and will not run.

- Set execution policy to remote signed.

> Get-ExecutionPolicy

> Set-ExecutionPolicy -Scope CurrentUser -ExecutionPolicy RemoteSigned

```
PS C:\Users\Wency> Set-Location 'C:\Users\Wency\AppData\Local\Programs\Python\Python313'
PS C:\Users\Wency\AppData\Local\Programs\Python\Python313> python -m venv venv
PS C:\Users\Wency\AppData\Local\Programs\Python\Python313> .\venv\Scripts\activate
.\venv\Scripts\activate : File C:\Users\Wency\AppData\Local\Programs\Python\Python313\venv\Scripts\Activate.ps1 cannot
be loaded because running scripts is disabled on this system. For more information, see about_Execution_Policies at
https:/go.microsoft.com/fwlink/?LinkID=135170.
At line:1 char:1
+ .\venv\Scripts\activate
+ ~~~~~~~~~~~~~~~~~~~~~~~~
    + CategoryInfo          : SecurityError: (:) [], PSSecurityException
    + FullyQualifiedErrorId : UnauthorizedAccess
PS C:\Users\Wency\AppData\Local\Programs\Python\Python313> Get-ExecutionPolicy
Restricted
PS C:\Users\Wency\AppData\Local\Programs\Python\Python313> Set-ExecutionPolicy -Scope CurrentUser -ExecutionPolicy RemoteSigned
PS C:\Users\Wency\AppData\Local\Programs\Python\Python313> .\venv\Scripts\Activate.ps1
(venv) PS C:\Users\Wency\AppData\Local\Programs\Python\Python313> python --version
Python 3.13.7
(venv) PS C:\Users\Wency\AppData\Local\Programs\Python\Python313>
```

These will be the following processes if there will be an error.

The folder from GitHub should be downloaded directly in the Python folder

> get clone <github http ...>

```
C:\Users\Wency\AppData\Local\Programs\Python\Python313\venv\Scripts\python.exe: can't open file 'C:\\Users\\Wency\\AppData\\
Local\\Programs\\Python\\Python313\\app.py': [Errno 2] No such file or directory
(venv) PS C:\Users\Wency\AppData\Local\Programs\Python\Python313> cd nextwork-security-secretsmanager
(venv) PS C:\Users\Wency\AppData\Local\Programs\Python\Python313\nextwork-security-secretsmanager> dir


    Directory: C:\Users\Wency\AppData\Local\Programs\Python\Python313\nextwork-security-secretsmanager


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
d-----        01/09/2025  11:04 am                static
-a----        01/09/2025  11:04 am           1546 app.py
-a----        01/09/2025  11:04 am            262 config.py
-a----        01/09/2025  11:04 am            483 Dockerfile
-a----        01/09/2025  11:04 am            579 index.html
-a----        01/09/2025  11:04 am             76 requirements.txt


(venv) PS C:\Users\Wency\AppData\Local\Programs\Python\Python313\nextwork-security-secretsmanager> python app.py
Traceback (most recent call last):
  File "C:\Users\Wency\AppData\Local\Programs\Python\Python313\nextwork-security-secretsmanager\app.py", line 1, in <module>
    import boto3
ModuleNotFoundError: No module named 'boto3'
(venv) PS C:\Users\Wency\AppData\Local\Programs\Python\Python313\nextwork-security-secretsmanager>  requirements.txt
requirements.txt : The term 'requirements.txt' is not recognized as the name of a cmdlet, function, script file, or
operable program. Check the spelling of the name, or if a path was included, verify that the path is correct and try again.
At line:1 char:2
+  requirements.txt
+  ~~~~~~~~~~~~~~~~
    + CategoryInfo          : ObjectNotFound: (requirements.txt:String) [], CommandNotFoundException
    + FullyQualifiedErrorId : CommandNotFoundException
```

To open file,

cat <file name> or

notepad <file name>

Finish installing all files in the requirements.txt

```
+   ~~~~~~~~~~~~~~~~~~~~~
    + CategoryInfo          : ObjectNotFound: (requirements.txt:String) [], CommandNotFoundException
    + FullyQualifiedErrorId : CommandNotFoundException


Suggestion [3,General]: The command requirements.txt was not found, but does exist in the current location. Windows PowerShe
ll does not load commands from the current location by default. If you trust this command, instead type: ".\requirements.txt
". See "get-help about_Command_Precedence" for more details.
(venv) PS C:\Users\Wency\AppData\Local\Programs\Python\Python313\nextwork-security-secretsmanager> notepad requirements.txt
(venv) PS C:\Users\Wency\AppData\Local\Programs\Python\Python313\nextwork-security-secretsmanager> cat requirements.txt
fastapi==0.115.8
uvicorn==0.34.0
boto3==1.36.20
python-multipart==0.0.5
(venv) PS C:\Users\Wency\AppData\Local\Programs\Python\Python313\nextwork-security-secretsmanager> dir


    Directory: C:\Users\Wency\AppData\Local\Programs\Python\Python313\nextwork-security-secretsmanager


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
d-----        01/09/2025   11:04 am                static
-a----        01/09/2025   11:04 am           1546 app.py
-a----        01/09/2025   11:04 am            262 config.py
-a----        01/09/2025   11:04 am            483 Dockerfile
-a----        01/09/2025   11:04 am            579 index.html
-a----        01/09/2025   11:04 am             76 requirements.txt


(venv) PS C:\Users\Wency\AppData\Local\Programs\Python\Python313\nextwork-security-secretsmanager> pip3 install -r  requirem
ents.txt
Collecting fastapi==0.115.8 (from -r requirements.txt (line 1))
  Downloading fastapi-0.115.8-py3-none-any.whl.metadata (27 kB)
Collecting uvicorn==0.34.0 (from -r requirements.txt (line 2))
  Downloading uvicorn-0.34.0-py3-none-any.whl.metadata (6.5 kB)
Collecting boto3==1.36.20 (from -r requirements.txt (line 3))
  Downloading boto3-1.36.20-py3-none-any.whl.metadata (6.7 kB)
Collecting python-multipart==0.0.5 (from -r requirements.txt (line 4))
```

```
Downloading botocore-1.36.26-py3-none-any.whl (13.4 MB)
                                    13.4/13.4 MB 11.2 MB/s  0:00:01
Downloading jmespath-1.0.1-py3-none-any.whl (20 kB)
Downloading pydantic-2.11.7-py3-none-any.whl (444 kB)
Downloading pydantic_core-2.33.2-cp313-cp313-win_amd64.whl (2.0 MB)
                                    2.0/2.0 MB 11.1 MB/s  0:00:00
Downloading python_dateutil-2.9.0.post0-py2.py3-none-any.whl (229 kB)
Downloading s3transfer-0.11.3-py3-none-any.whl (84 kB)
Downloading starlette-0.45.3-py3-none-any.whl (71 kB)
Downloading anyio-4.10.0-py3-none-any.whl (107 kB)
Downloading urllib3-2.5.0-py3-none-any.whl (129 kB)
Downloading annotated_types-0.7.0-py3-none-any.whl (13 kB)
Downloading click-8.2.1-py3-none-any.whl (102 kB)
Downloading h11-0.16.0-py3-none-any.whl (37 kB)
Downloading idna-3.10-py3-none-any.whl (70 kB)
Downloading six-1.17.0-py2.py3-none-any.whl (11 kB)
Downloading sniffio-1.3.1-py3-none-any.whl (10 kB)
Downloading typing_extensions-4.15.0-py3-none-any.whl (44 kB)
Downloading typing_inspection-0.4.1-py3-none-any.whl (14 kB)
Downloading colorama-0.4.6-py2.py3-none-any.whl (25 kB)
Building wheels for collected packages: python-multipart
  Building wheel for python-multipart (pyproject.toml) ... done
  Created wheel for python-multipart: filename=python_multipart-0.0.5-py3-none-any.whl size=31748 sha256=78c6b5c3e8cd9375393
b064f8921df82059391a454d2a95f4ece9eed8b01a2ef
  Stored in directory: c:\users\wency\appdata\local\pip\cache\wheels\b5\2d\66\d2594aaa5dd65f5f5abf479b67f828d040ad7bbbb9a9af
ba96
Successfully built python-multipart
Installing collected packages: urllib3, typing-extensions, sniffio, six, jmespath, idna, h11, colorama, annotated-types, typ
ing-inspection, python-multipart, python-dateutil, pydantic-core, click, anyio, uvicorn, starlette, pydantic, botocore, s3tr
ansfer, fastapi, boto3
Successfully installed annotated-types-0.7.0 anyio-4.10.0 boto3-1.36.20 botocore-1.36.26 click-8.2.1 colorama-0.4.6 fastapi-
0.115.8 h11-0.16.0 idna-3.10 jmespath-1.0.1 pydantic-2.11.7 pydantic-core-2.33.2 python-dateutil-2.9.0.post0 python-multipar
t-0.0.5 s3transfer-0.11.3 six-1.17.0 sniffio-1.3.1 starlette-0.45.3 typing-extensions-4.15.0 typing-inspection-0.4.1 urllib3
-2.5.0 uvicorn-0.34.0
(venv) PS C:\Users\Wency\AppData\Local\Programs\Python\Python313\nextwork-security-secretsmanager>
```

```
5a90
Successfully built python-multipart
Installing collected packages: urllib3, typing-extensions, sniffio, six, jmespath, idna, h11, colorama, annotated-types, typ
ing-inspection, python-multipart, python-dateutil, pydantic-core, click, anyio, uvicorn, starlette, pydantic, botocore, s3tr
ansfer, fastapi, boto3
Successfully installed annotated-types-0.7.0 anyio-4.10.0 boto3-1.36.20 botocore-1.36.26 click-8.2.1 colorama-0.4.6 fastapi-
0.115.8 h11-0.16.0 idna-3.10 jmespath-1.0.1 pydantic-2.11.7 pydantic-core-2.33.2 python-dateutil-2.9.0.post0 python-multipar
t-0.0.5 s3transfer-0.11.3 six-1.17.0 sniffio-1.3.1 starlette-0.45.3 typing-extensions-4.15.0 typing-inspection-0.4.1 urllib3
-2.5.0 uvicorn-0.34.0
(venv) PS C:\Users\Wency\AppData\Local\Programs\Python\Python313\nextwork-security-secretsmanager> pip list
Package           Version
----------------- ----------
annotated-types   0.7.0
anyio             4.10.0
boto3             1.36.20
botocore          1.36.26
click             8.2.1
colorama          0.4.6
fastapi           0.115.8
h11               0.16.0
idna              3.10
jmespath          1.0.1
pip               25.2
pydantic          2.11.7
pydantic_core     2.33.2
python-dateutil   2.9.0.post0
python-multipart  0.0.5
s3transfer        0.11.3
six               1.17.0
sniffio           1.3.1
starlette         0.45.3
typing_extensions 4.15.0
typing-inspection 0.4.1
urllib3           2.5.0
uvicorn           0.34.0
(venv) PS C:\Users\Wency\AppData\Local\Programs\Python\Python313\nextwork-security-secretsmanager>
```

A new virtual environment: a virtual environment is like a folder that keeps all the tools and packages for a specific project in one place. In our case, the virtual environment will keep all the packages we need to run this web app.

Packages or libraries are pre-written code that you can use in your project. For example, if you're building a weather app, you could use a package that lets you make API requests to get the weather data.

You should see boto3 and other packages like fastapi and uvicorn in the list of installed packages.

-Now that we've installed the dependencies, let's run the application again.

-If you use this http://0.0.0.0:8000 – you can't access the page

-Use this http://localhost:8000 or http://127.0.0.1:8000

Welcome to My AWS Demo App

This application lists your S3 buckets behind the scenes.

Currently, the AWS credentials are **hard-coded** in `config.py`. In the next step, we'll replace them with **AWS Secrets Manager**.

View My S3 Buckets

T Highlight H   💬 Ask A   ➕ Note

- In your terminal, type `git commit -m "Updated config.py with hardcoded credentials"` and press **Enter**. Committing in Git saves a snapshot of your changes.

You will get an error in this step.

```
(venv) C:\Users\Wency\AppData\Local\Programs\Python\Python313\nextwork-security-secretsmanager>git add .

(venv) C:\Users\Wency\AppData\Local\Programs\Python\Python313\nextwork-security-secretsmanager>git commit -m "Updated config.py with hardcoded credentials"
Author identity unknown

*** Please tell me who you are.

Run

  git config --global user.email "you@example.com"
  git config --global user.name "Your Name"

to set your account's default identity.
Omit --global to set the identity only in this repository.
```

Do this.

You will see this error, and this is where AWS Secrets Manager comes in.

Remove hard-coded credentials from Commit History

- Identify commit ID – first 7 digits.

- Search for the commit ID in the rebase

- Replace "pick" with "d"