

## M.O.D.I.T. deployment steps

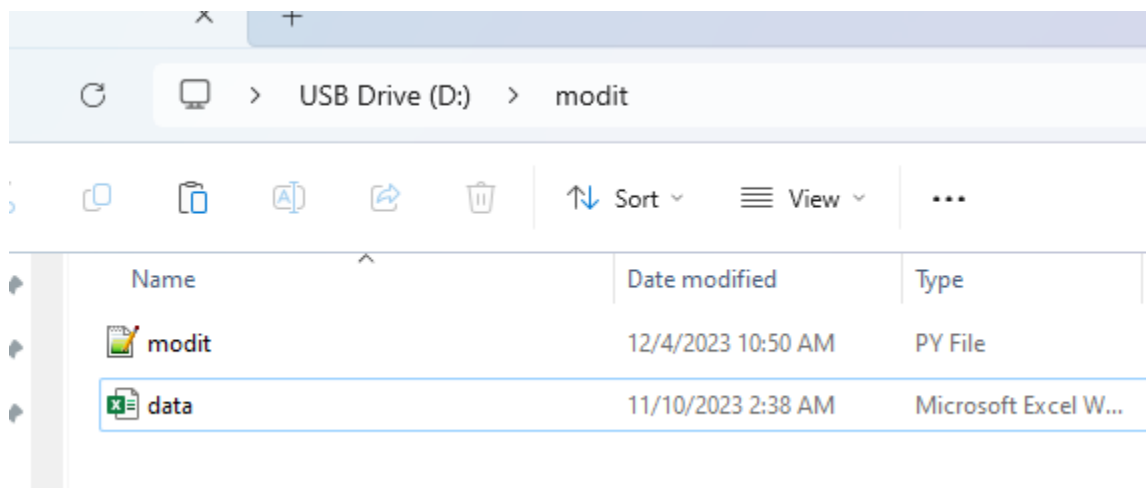
1.) Install Python for windows at <https://www.python.org/downloads/>



2.) Create a folder for M.O.D.I.T.

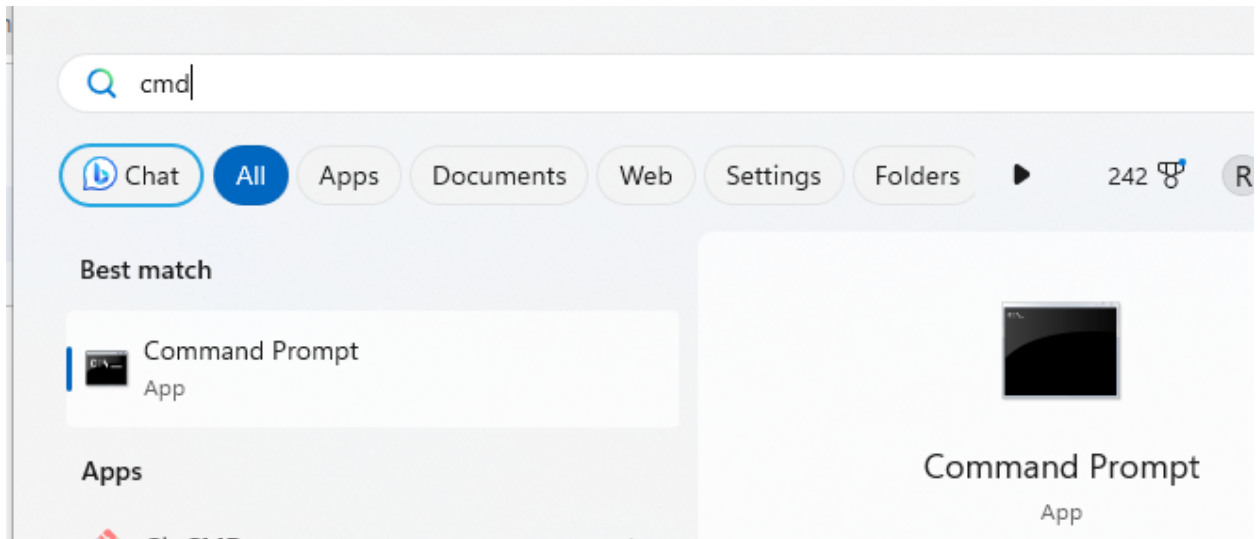
3.) Place .py file from M.O.D.I.T. into folder

4.) Place machine data worksheet into folder



5.) Open command prompt (press the windows key, type "cmd", press enter)

6.) Navigate to the folder you created by using cd and dir. cd changes your directory to the following input, dir lists what's in the directory you are viewing, ex: cd modit



```
D:\>cd modit

D:\modit>dir
Volume in drive D has no label.
Volume Serial Number is 7109-EE03

Directory of D:\modit

12/04/2023  08:53 AM    <DIR>          .
12/04/2023  08:53 AM    <DIR>          ..
12/04/2023  10:50 AM                108,192 modit.py
11/10/2023  02:38 AM            16,398,776 data.xlsx
               2 File(s)            16,506,968 bytes
               2 Dir(s)  60,441,362,432 bytes free

D:\modit>
```

- 7.) Enter “python -m venv venv” to create a virtual environment for the application (this may take some time). Wait for command prompt to return to its default state.

```
D:\modit>python -m venv venv

D:\modit>
```

- 8.) Enter “venv\Scripts\activate” to activate the virtual environment. You should see the command line update with “(venv)”

```
D:\modit>venv\Scripts\activate

(venv) D:\modit>
```

- 9.) In the virtual environment, type “python -m pip install dash==2.8.1 pandas==1.5.3” to install the required libraries for the application. Warning: When testing this instruction, this took upwards of a half an hour to complete.

```
(venv) D:\modit>
(venv) D:\modit>python -m pip install dash==2.8.1 pandas==1.5.3
Collecting dash==2.8.1
  Using cached dash-2.8.1-py3-none-any.whl (9.9 MB)
Collecting pandas==1.5.3
  Using cached pandas-1.5.3-cp311-cp311-win_amd64.whl (10.3 MB)
Collecting Flask>=1.0.4 (from dash==2.8.1)
  Obtaining dependency information for Flask>=1.0.4 from https://files.pyt
...
Requirement already satisfied: MarkupSafe>=2.0 in d:\modit\venv\lib\site
h==2.8.1) (2.1.3)
Using cached flask-3.0.0-py3-none-any.whl (99 kB)
Using cached click-8.1.7-py3-none-any.whl (97 kB)
Installing collected packages: Jinja2, click, pandas, Flask, dash
Successfully installed Flask Jinja2 click dash pandas

[notice] A new release of pip is available: 23.2.1 -> 23.3.1
[notice] To update, run: python.exe -m pip install --upgrade pip

(venv) D:\modit>
```

- 10.) Enter “pip install openpyxl”

```
(venv) D:\modit>pip install openpyxl
Collecting openpyxl
  Using cached openpyxl-3.1.2-py2.py3-none-any.whl (249 kB)
Collecting et_xmlfile (from openpyxl)
  Using cached et_xmlfile-1.1.0-py3-none-any.whl (4.7 kB)
Installing collected packages: et_xmlfile, openpyxl
Successfully installed et_xmlfile openpyxl

[notice] A new release of pip is available: 23.2.1 -> 23.3.1
[notice] To update, run: python.exe -m pip install --upgrade pip

(venv) D:\modit>
```

Steps to run the application after setup:

- 1.) Open command prompt by pressing the windows key, type “cmd”, and press enter
- 2.) Navigate to your modit folder by using cd

```

D:\>cd modit

D:\modit>dir
Volume in drive D has no label.
Volume Serial Number is 7109-EE03

Directory of D:\modit

12/04/2023  08:53 AM    <DIR>          .
12/04/2023  08:53 AM    <DIR>          ..
12/04/2023  10:50 AM                108,192 modit.py
11/10/2023  02:38 AM            16,398,776 data.xlsx
12/04/2023  11:01 AM    <DIR>          venv
               2 File(s)        16,506,968 bytes
               3 Dir(s)  59,238,187,008 bytes free

D:\modit>

```

- 3.) Type “venv\Scripts\activate” to activate the virtual environment

```

D:\modit>venv\Scripts\activate

(venv) D:\modit>|

```

- 4.) Type “python modit.py” to run the application

```

(venv) D:\modit>python modit.py
Please enter the excel worksheet name (without the '.xlsx' extension):

```

- 5.) Enter the name of the excel worksheet file without its extension

```

(venv) D:\modit>python modit.py
Please enter the excel worksheet name (without the '.xlsx' extension): data
Loading data...

```

- 6.) Wait for command prompt to update to displaying that it is serving the app (this may take up to a few minutes)

```

(venv) D:\modit>python modit.py
Please enter the excel worksheet name (without the '.xlsx' extension): data
Loading data...
Data loaded successfully
Loading application...
Dash is running on http://127.0.0.1:8050/

* Serving Flask app 'modit'
* Debug mode: off
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on http://127.0.0.1:8050
Press CTRL+C to quit

```

- 7.) Once it is serving, open your web browser to “localhost:8050”, it may take a couple of minutes to load



# M.O.D.I.T. Analytics

Analyze the machine performance data and the throughput per hour

Machine

Station 10A

Machine To Compare Throughput

Station 10B

8.) Once loaded, toy with the filters as necessary

To close, simply exit the command prompt window or use the hotkey “ctrl + c” to exit the virtual environment in the command prompt window