

Installing Required Packages (Slide 1)



- Now we can install the necessary packages in the virtual environment to run Flask

```
(myenv) C:\Users\\Documents>pip install flask
Collecting flask
Downloading Flask-2.2.2-py3-none-any.whl (101 kB)
```

```
(myenv) C:\Users\\Documents>pip install flask_api
Collecting flask_api
Downloading Flask_API-3.0.post1-py3-none-any.whl (139 kB)
```

```
(myenv) C:\Users\\Documents>pip install requests
Collecting requests
Downloading requests-2.28.1-py3-none-any.whl (62 kB)
```



Installing Required Packages (Slide 2)

- Run pip list again to verify (you will also see the dependencies that were installed):

```
(myenv) C:\Users\<<userid>\Documents>pip list
```

Package	Version
certifi	2022.9.24
charset-normalizer	2.1.1
click	8.1.3
colorama	0.4.6
Flask	2.2.2
Flask-API	3.0.post1
idna	3.4
importlib-metadata	5.0.0
itsdangerous	2.1.2
Jinja2	3.1.2
MarkupSafe	2.1.1
pip	22.3.1
requests	2.28.1
setuptools	49.2.1
urllib3	1.26.12
Werkzeug	2.2.2
zipp	3.10.0

pip freeze (Slide 1)



- **pip freeze** also lists installed modules

```
(myenv) C:\Users\<<userid>\Documents>pip freeze
certifi==2022.9.24
charset-normalizer==2.1.1
click==8.1.3
colorama==0.4.6
Flask==2.2.2
Flask-API==3.0.post1
idna==3.4
importlib-metadata==5.0.0
itsdangerous==2.1.2
Jinja2==3.1.2
MarkupSafe==2.1.1
requests==2.28.1
urllib3==1.26.12
Werkzeug==2.2.2
zipp==3.10.0
```



pip freeze (Slide 2)

- pip freeze can be used to create a list of installed modules to recreate the configuration in a new virtual environment
- Record the current venv and deactivate:

```
(myenv) C:\Users\<<userid>\Documents>pip freeze >requirements.txt
```

```
(myenv) C:\Users\<<userid>\Documents>myenv\Scripts\deactivate
```

- Create a new venv and install packages from saved list

```
C:\Users\<<userid>\Downloads>python -m venv newenv
```

```
C:\Users\<<userid>\Documents>newenv\Scripts\activate
```

```
(newenv) C:\Users\<<userid>\Documents> pip install -r requirements.txt
```

pip freeze (Slide 3)



- Run pip freeze in the new environment to verify

```
(newenv) C:\Users\<<userid>\Documents>pip freeze
```

```
...
```

```
Flask==2.2.2
```

```
Flask-API==3.0.post1
```

```
...
```

```
requests==2.28.1
```

```
...
```

```
WARNING: You are using pip version 20.2.3; however, version  
22.3.1 is available.
```

- (notice that pip does not install the newer version from the original environment, it must be updated separately)