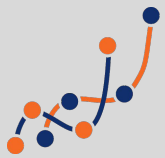
ML Model Deployment using Python & Flask



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Agenda

01 **Introduction** to Flask

02 **Getting Started:** Installing & Working with Flask

03 **Concepts:** Overview of all concepts in Flask

04 **Use Cases**

05 **Practical Approach:** Model Deployment using Flask

Introduction to Flask

What is Flask?

Flask is a web application framework written in Python

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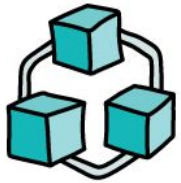
Web Framework



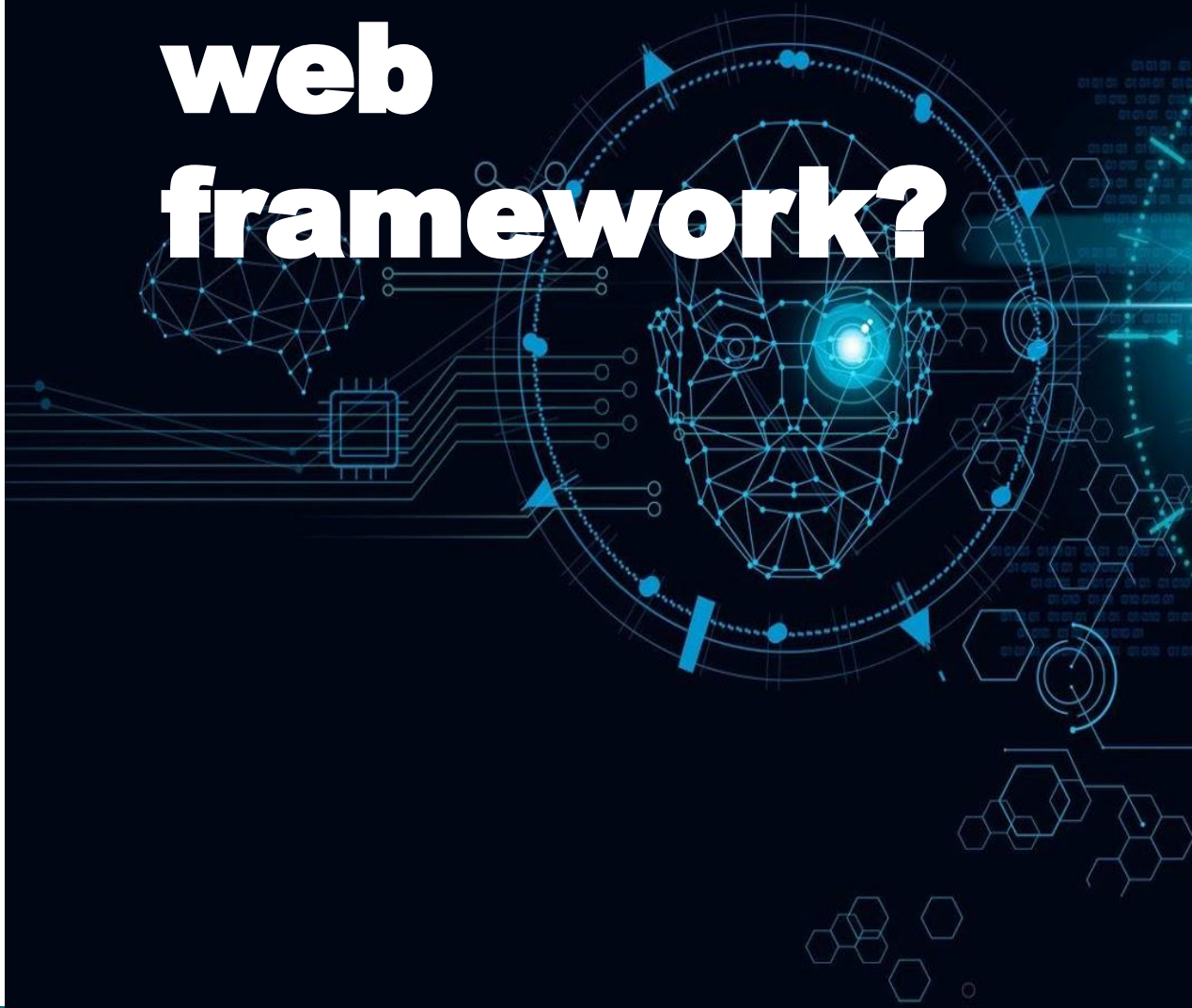
Modules

Libraries

Web Development

Web Application

What is a web framework?



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Flask Installation

pip install Flask

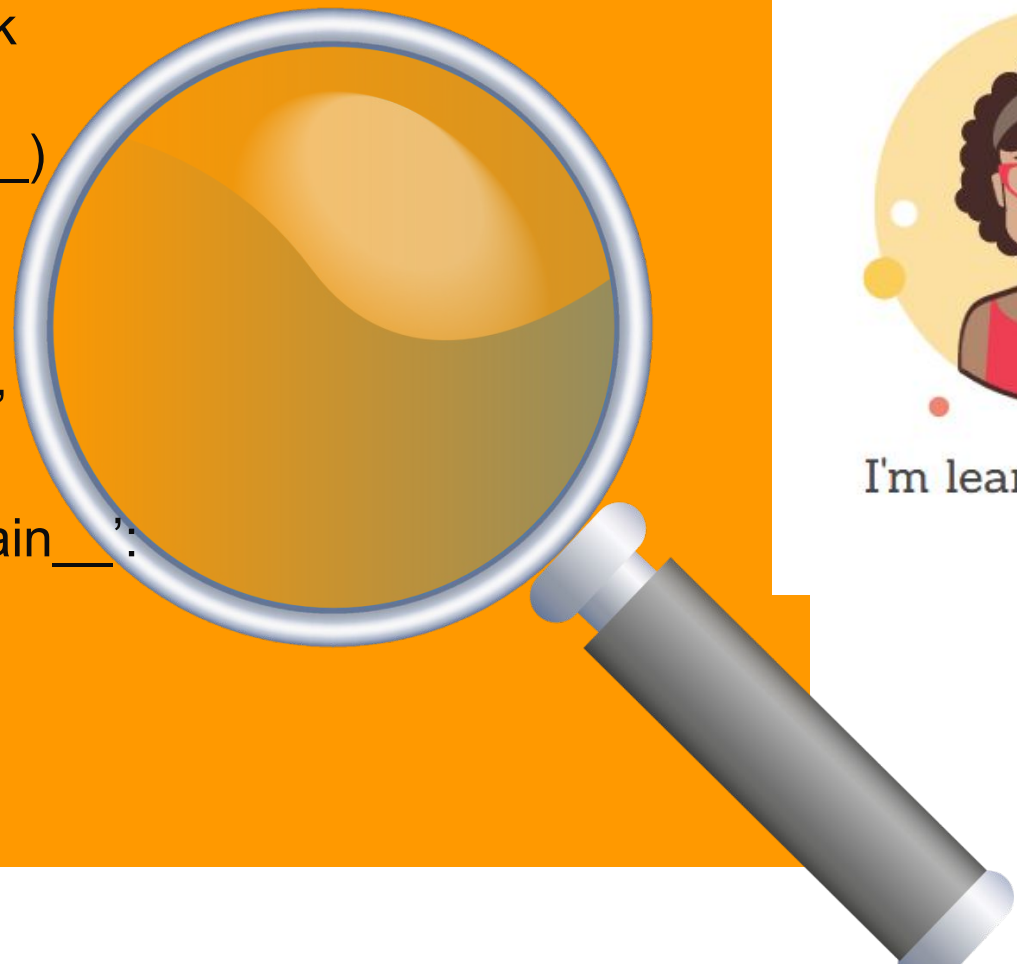
Flask - Application

```
from flask import Flask

app = Flask(__name__)

@app.route('/')
def func1():
    return 'Hello World'

if __name__ == '__main__':
    app.run()
```



I'm learning Flask!!

Flask - Application

Flask - Application

Debug Mode

Flask application is started by calling the run() method

```
* Serving Flask app "test" (lazy loading)
* Environment: production
  WARNING: Do not use the development server in a production environment.
  Use a production WSGI server instead.
* Debug mode: off
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
```

How to enable Debug?

```
* Serving Flask app "test" (lazy loading)
* Environment: production
  WARNING: Do not use the development server in a production environment.
  Use a production WSGI server instead.
* Debug mode: on
* Restarting with stat
```

app.debug=True
app.run()
app.run(debug=True)

SET FLASK_DEBUG=1 (Anaconda Prompt)

Flask - Routing

Route() decorator

route() decorator in Flask is used to bind URL to a function

Example

```
@app.route('/')
def hello():
    return 'Hello World'
```

add_url_rule() function is also used to bind URL with function

Flask - HTTP methods

HTTP Protocols are the foundation for data communication in WWW

Sl. no.	Method	Description
1	GET	Sends data in unencrypted form to the server
2	HEAD	Same as GET, but without response body
3	POST	Used to send HTML form data to the server
4	PUT	Replaces all current representations of target resource with uploaded content
5	DELETE	Removes all current representations of target resource given by URL

Flask - Errors

Standardized status codes

Sl. no.	Code	Description
1	400	Bad Request
2	401	Unauthorized
3	403	Forbidden
4	404	Not Found
5	406	Not Acceptable
6	415	Unsupported Media Type
7	429	Too Many Requests

Let’s build some web apps

THANK YOU