

Prior Knowledge

Date	12 November 2022
Team ID	PNT2022TMID03921
Project Name	Virtual Eye - Life Guard For Swimming Pools To Detect Active Drowning
Maximum Marks	4 Marks

YOLO V3

We are learned about yolov3 algorithm

Following things we learned

1. What is yolov3?

- ✓ YOLOv3 (You Only Look Once, Version 3) is a real-time object detection algorithm that identifies specific objects in videos, live feeds, or images.
- ✓ The YOLO machine learning algorithm uses features learned by a deep convolutional neural network to detect an object.

2. Why the YOLO algorithm is important?

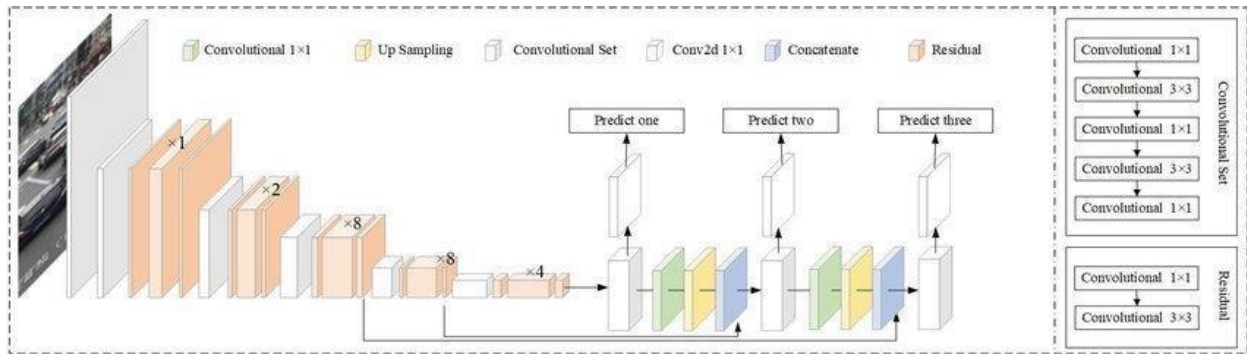
increased accuracy in predictions and a better Intersection over Union in bounding boxes

3. What is the purpose of object detection?

To identify and locate one or more effective targets from still image or video data.

4. How does it work?

- ✓ YOLO is a Convolutional Neural Network (CNN) for performing object detection in real-time
- ✓ CNNs are classifier-based systems that can process input images as structured arrays of data and recognize patterns between them



5. How to Install YOLOv3?

6. How to Use YOLOv3?

- ✓ Model Weights
- ✓ Making a Prediction

Flask

1. Introduction to Flask

What is Flask?

What is Flask?

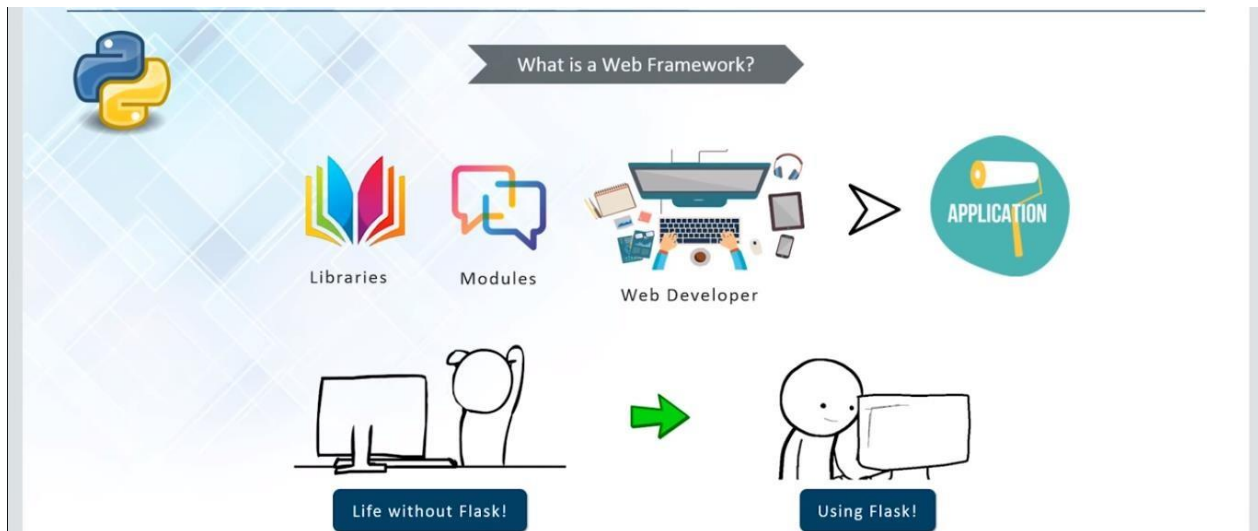
Flask is a web application framework written in Python.

I created Flask!

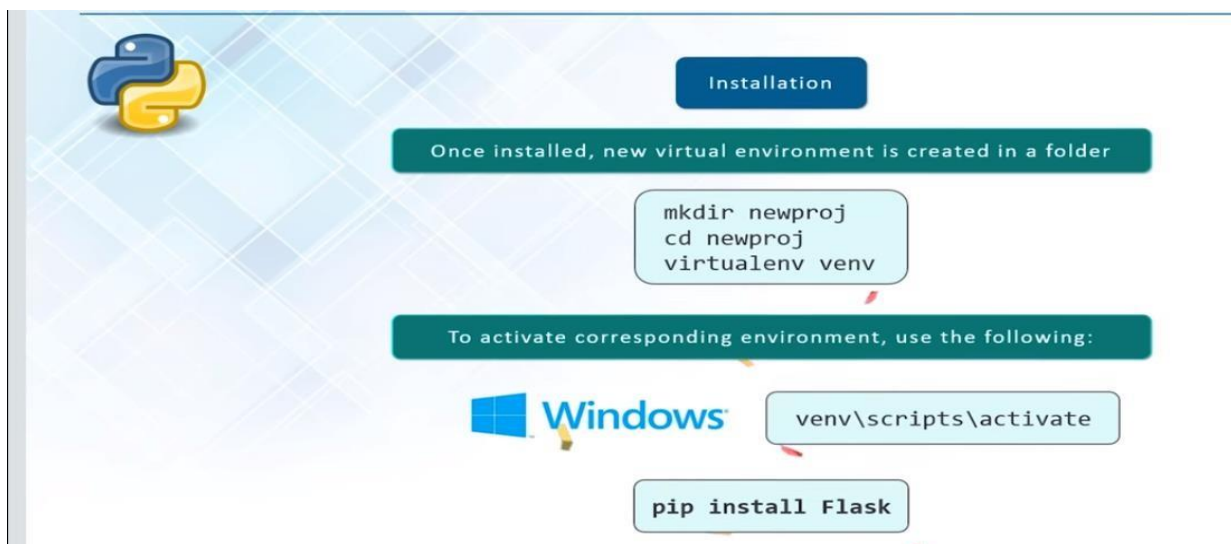
Large community for Learners and Collaborators

Open Source

What is Web Framework?



How to install Flask?



2. Flask -Application

Importing flask module in the project is mandatory

3. Flask-Routing

Route() decorator in flask is used to bind URL to a function

4. Flask -variable Rules

It is possible to build a URL dynamically

5. Flask-URL Building

url_for() function is used for dynamically building a URL for a specific function

6. Flask-HTTP Methods

Http protocols are the foundation for data communication in WWW

7. Flask-Templates

Flask uses jinja2 template engine

8. Flask-Static Files

Web application will require a static file such as JS or CSS file

9. Flask-Request Object

Data from client's webpage is sent to server as a global request object

10. Flask-Cookies

Cookie is stored on client's machine and helps with data tracking

11. Flask-Redirect&Errors

Flask class has a redirect[] function which returns a response object.

12. Flask-Extensions

- ✓ Flask is a micro framework
- ✓ It has large no of extensions
- ✓ Flask mail
- ✓ Flask WTF
- ✓ Flask SQL Alchemy
- ✓ Flask sjax