YOLOv8 Vision Workshop – Student Guide

1. Workshop Repository

All workshop code is hosted on the official AreneSha AI Labs GitHub repository.

Repository URL:
https://github.com/Pranali2907/yolo-workshop

Students do not need a GitHub account to download the code.

2. System Requirements

• Laptop with Windows / macOS / Linux
• Python 3.9 or higher installed
• Webcam (for live detection)
• Internet connection (only for installation)

3. Download the Workshop Code

Step 1: Open the repository link provided above.
Step 2: Click the **Code** button.
Step 3: Select **Download ZIP**.
Step 4: Extract the ZIP file to any folder on your laptop.

4. Open Terminal / Command Prompt

• Windows: Open Command Prompt or PowerShell
• macOS / Linux: Open Terminal
• Navigate to the extracted folder

5. Install Required Libraries

Run the following command:
pip install -r requirements.txt

This will install Flask, OpenCV, and YOLOv8 dependencies.

6. Run the Application

Start the application using:
python app.py

If successful, you will see a message showing the local server address.

7. Open the Web Interface

Open your browser and go to:
http://127.0.0.1:5000

The YOLOv8 Workshop interface will appear.

8. Image Detection

• Upload your trained YOLOv8 **best.pt** model
• Upload an image (jpg / png)
• Click **Run Detection**
• View the detected output image on the screen

9. Live Webcam Detection

• Upload your trained YOLOv8 **best.pt** model
• Click **Start Webcam**
• Live detection will start using your laptop camera
• Press **Q** on the keyboard to stop the webcam

10. Troubleshooting Tips

• Ensure Python version is correct
• Close other apps using the webcam
• Use only YOLOv8 .pt models
• Restart the app if any error occurs