### Real-Time Object Detection using YOLO

This project demonstrates how to perform object detection on uploaded images using YOLO (You Only Look Once) model. The model is implemented in Python using the YOLOv5 architecture, which is known for its speed and accuracy in detecting multiple objects in images. The system allows users to upload an image, and the model will detect and display objects with bounding boxes around them.

#### Features:

* **YOLOv5 for Object Detection**: Utilizes the pre-trained YOLOv5 model for accurate object detection.
* **Easy Image Upload**: Supports image upload through a file dialog or Google Colab’s file upload functionality.
* **Display Detection Results**: The model marks detected objects with bounding boxes and displays the result.

#### Requirements:

* Python 3.x
* torch (for YOLO model)
* opencv-python
* Pillow (for image processing)
* Google Colab or any Python environment with GUI access (for local GUI support).

#### Installation:

To run the project, simply clone the repository and install the required dependencies:

!pip install -r requirements.txt

Upload an image, and the system will show the detection results with labeled objects.