Instructions on how it can be used and brief explanation how to create simple GUI

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Two methods of using: first one with GUI

Step 1:
Install OpenCV (cv2)
pip install opencv-python

Install PySimpleGUI (sg)
pip install PySimpleGUI

Install Ultralytics (YOLO)
pip install ultralytics

After installing the dependencies you can easily run provided code in your environment. Here is the brief explanation of what the code does.

```
import cv2
import PySimpleGUI as sg
from ultralytics import YOLO


# Define the YOLO model path
model_path =
"/Users/mukhtarrabayev/Downloads/content/runs/detect/train8/weights/best.pt"


# Load the YOLO model
model = YOLO(model_path, task='detect')


# Define the layout of the GUI
layout = [
  [sg.Text("UNO Card Detection", font=("Helvetica", 20))],
  [sg.Image(key="-IMAGE-")],
  [sg.Button("Browse"), sg.Button("Exit")],


]
```

```
# Create the window
window = sg.Window("UNO Card Detection", layout, resizable=True, finalize=True)

def browse_image():
  file_path = sg.popup_get_file("Select Image", file_types=(("Image Files", "*.png;*.jpg"),))
  if file_path:
     return file_path


def detect_and_display_cards(image_path):
  image = cv2.imread(image_path)
  results = model(image, show=True)


# Event loop
while True:
  event, values = window.read()


  if event == sg.WIN_CLOSED or event == "Exit":
     break


  elif event == "Browse":
     image_path = browse_image()


     # Perform detection and display immediately after selecting an image
     if image_path:
        detect_and_display_cards(image_path)


# Close the window
window.close()
```

Second one with Jupyter Notebook

1)!pip install ultralytics==8.0.196

Need to install exactly this version of ultralytics, it is due to the fact that model was trained with that version

2)import ultralytics

from ultralytics import YOLO

!yolo task=detect mode=predict
model=/Users/mukhtarrabayev/Downloads/content/runs/detect/train8/weights/best.pt
conf=0.25 source=/Users/mukhtarrabayev/Downloads/plcards.jpeg

specifying the path of model, and the source(what image you want to predict)

3) from IPython.display import Image
image_path = "/Users/mukhtarrabayev/Desktop/runs/detect/predict/plcards.jpeg"
Image(filename=image_path, width=600)

to output the image