Overview:

This Python script demonstrates real-time face detection and blurring in a video using the MediaPipe library. It utilizes the face detection functionality provided by MediaPipe to identify faces in each frame of a video feed, draws bounding boxes around the detected faces, and then applies a blur effect to the faces.

Requirements:

- Python
- OpenCV (cv2) library
- MediaPipe library

Description:

- The script starts by importing necessary libraries: cv2 for OpenCV and mediapipe for face detection.
- It defines a function process_img to process each frame of the video. This function takes a frame and a MediaPipe face detection object as input, detects faces in the frame, draws bounding boxes around them, and applies a blur effect to the detected faces.
- The main loop reads frames from the input video file, processes each frame using the process_img function, and writes the processed frames to an output video file.
- The face detection model is initialized using the mp_face_detection.FaceDetection class from MediaPipe. You can specify the confidence threshold for face detection and choose between short-range and full-range models.
- The script displays the processed video feed in a window named "Mediapipe Feed". Press 'q' to exit the program

Output:

The script generates an output video file named "Output.mp4" containing the processed video with faces detected and blurred.