Knee-Bend Algorithm

* Using Mediapipe , we first get the 33 types of joints
* From there as we need to check if a knee is bent, for this we need to find the angle between the hip,knee and ankle joints
* I have placed a threshold of 140 degree bend that needs to be achieved between the 3 joints only below which the knee is said to be “up” or “bent”.
* If the knee is bent above 160 degree , it is said to be “down” or “not bent”
* A counter starts every time the knee is bent and checks the 8 seconds mark , if the knee is not bent for 8 or more seconds continuously then a red message is popped up on the screen indicating the warning.

Instructions to run code

* Press run
* To stop the code from executing press ‘q’