

**Intern Hiring Assignment**

**Computer vision**

**Tasks :**

1. Write a robust algorithm to calculate successful rep count for knee bend exercise (Use [mediapipe](https://google.github.io/mediapipe/solutions/pose) pose model for this task)
2. Add a holding timer limit of 8 sec
3. Include feedback logic in your code, which should be triggered only when a person fails to stay in holding position till 8 sec.

Feedback message - **“Keep your knee bent”**

1. Run your code with provided video and upload the full recorded pose detected video in drive.
2. Dummy frames have been added in between the video, to replicate the fluctuation behaviour of keypoints, you can add a logic to handle fluctuations ( rapid fluctuations should not affect the algorithm flow.).
3. Report the performance of the user ( stat of bendness).

Exercise description -

* Leg should be bent to start timer
* Slight inward bend is enough to start the timer. ( <140 deg)
* After a successful rep, the person has to stretch his/her leg straight.
* No restriction for back angle
* Consider leg closer to camera as exercised leg

**Video :** [**KneeBend.mp4**](https://drive.google.com/file/d/1QM8UFQciXxJll5SZaTAhdqO4mg6tzM8r/view?usp=sharing)

**Timeline**

6 days, sooner is better.

**Where to submit**

To submit your solution, please fill this google sheet and upload your article to google drive, and share the drive url /video in the google sheet:

[Work Request - Google Forms](https://docs.google.com/forms/d/1DV05iXBjyQxrFDKEjvVBuJJoBq9dq0fSPIUGtp0DHcc/edit)

**Make sure your submission contains:**

a) Code file

b) Output video

c) Instructions

You don’t have to be great to start but you have to start to be great

ALL THE BEST!