**PROGRAM:**

import mediapipe as mp

import numpy as np

import cv2

import pyautogui

#d - defend

#p - punch

cap = cv2.VideoCapture(0)

pose = mp.solutions.pose

drawing = mp.solutions.drawing\_utils

obj = pose.Pose()

p\_down=False

d\_down=False

while True:

\_, frm = cap.read()

res = obj.process(cv2.cvtColor(frm, cv2.COLOR\_BGR2RGB))

drawing.draw\_landmarks(frm, res.pose\_landmarks, pose.POSE\_CONNECTIONS)

if res.pose\_landmarks and res.pose\_landmarks.landmark[16].visibility>0.7:

x = abs(res.pose\_landmarks.landmark[16].x\*640 - res.pose\_landmarks.landmark[12].x\*640)

if x > 110:

print("Punch")

if not(p\_down):

pyautogui.keyDown("p")

p\_down=True

else:

if p\_down:

p\_down=False

pyautogui.keyUp("p")

if res.pose\_landmarks.landmark[16].y\*640<res.pose\_landmarks.landmark[10].y\*640:

print("Defend")

if not(d\_down):

pyautogui.keyDown("d")

d\_down=True

else:

if d\_down:

d\_down=False

pyautogui.keyUp("d")

frm = cv2.flip(frm, 1)

cv2.imshow("window", frm)

if cv2.waitKey(1) == 27:

cv2.destroyAllWindows()

cap.release()

break

**OUTPUT:**



