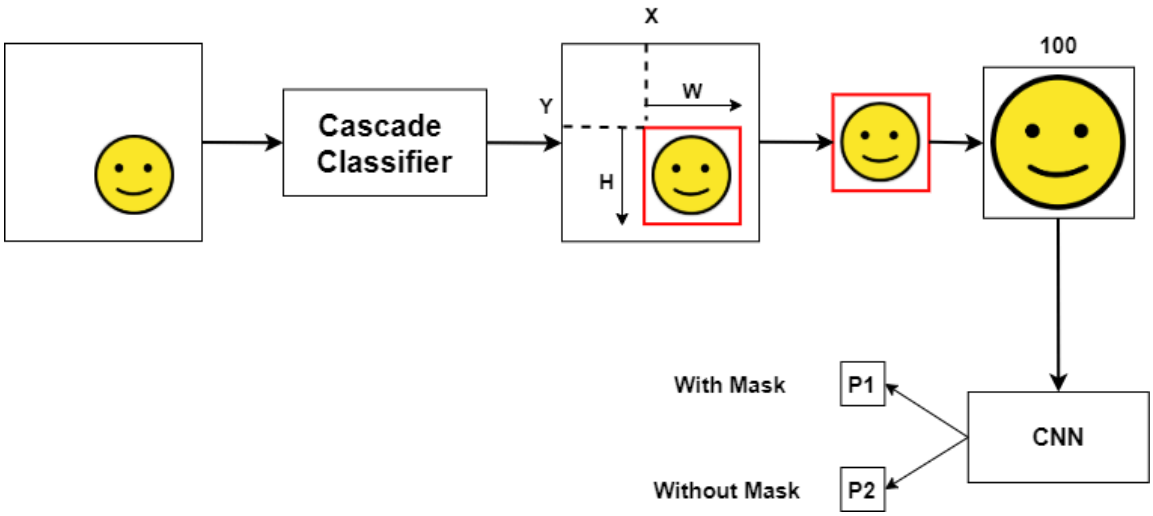
Detecting Faces with and without masks



In [25]:
```
from keras.models import load_model
import cv2
import numpy as np
```

In [26]:
```
model = load_model('model-017.model')

face_clsfr=cv2.CascadeClassifier('haarcascade_frontalface_default.xml')

cap =cv2.VideoCapture('maskvid.mp4')

labels_dict={0:'MASK',1:'NO MASK'}
color_dict={0:(0,255,0),1:(0,0,255)}
```

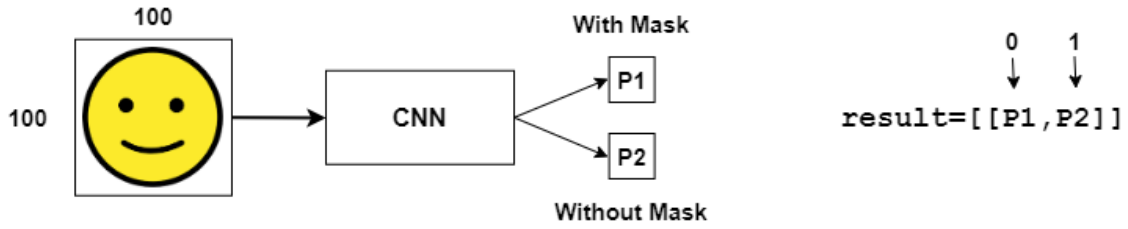
In [27]:
```
!pwd
```

```
/Users/mybeast/Documents
```

In [28]:
```
while(True):

    success,img=cap.read()
    img = cv2.resize(img,(800,700)) # (400,800), (800,700)
    gray=cv2.cvtColor(img,cv2.COLOR_BGR2GRAY)
    faces=face_clsfr.detectMultiScale(gray,1.3,5)

    for (x,y,w,h) in faces:

        face_img=gray[y:y+w,x:x+w]
        resized=cv2.resize(face_img,(100,100))
        normalized=resized/255.0
        reshaped=np.reshape(normalized,(1,100,100,1)) #reshape to 4D
        result=model.predict(reshaped)
```

```
        label=np.argmax(result,axis=1)[0] #to determine which has the maximu

        cv2.rectangle(img,(x,y),(x+w,y+h),color_dict[label],2) #for bounding
        cv2.rectangle(img,(x,y-40),(x+w,y),color_dict[label],-1) #for closed
        cv2.putText(img, labels_dict[label], (x, y-10),cv2.FONT_HERSHEY_SIMP


    cv2.imshow('LIVE',img)
    key=cv2.waitKey(1)

    if(key==27):
        break

cv2.destroyAllWindows()
source.release()
```

```
---------------------------------------------------------------------------
error                                     Traceback (most recent call last)
<ipython-input-28-0ccb82e39fbc> in <module>
      2
      3     success,img=cap.read()
----> 4     img = cv2.resize(img,(800,700)) # (400,800), (800,700)
      5     gray=cv2.cvtColor(img,cv2.COLOR_BGR2GRAY)
      6     faces=face_clsfr.detectMultiScale(gray,1.3,5)

error: OpenCV(3.4.13) /private/var/folders/nz/vv4_9tw56nv9k3tkvyszvwg80000g
n/T/pip-req-build-w3yujwau/opencv/modules/imgproc/src/resize.cpp:4051: erro
r: (-215:Assertion failed) !ssize.empty() in function 'resize'
```



In [ ]: