EXPERT SYSTEM:

name = input('What is your name? ')

print('Welcome ' + name + ', this expert system will help you distinguish between diseases with similar symptomps like Flu, Common Cold, Covid-19 and Pneumonia depending on severity of symptomps you are showing.')

flu=0

cold=0

c19=0

pneumonia=0

questions=["What is patient's age?",

"What is patient's body temparature?",

'What is the oxygen level?']

yesnoqs=['Are you experiencing cough and sore throat?',

'Do you have a runny nose?',

'Are you experiencing sneezing?',

'Do you have a headache?',

'Do you have body/muscular aches?',

'Are you experiencing regular tiredness?',

'Do you have a fever?',

'Have you experienced any vomiting or diarrhea?',

'Have you felt any shortness of breath and chest pain?',

'Have you lost your sense of smell or taste?']

age, body\_temp, oxy\_level = (0, 0, 0)

print('Answer the following questions.')

qno = 1

for q in questions:

print(q)

if(qno == 1):

age = int(input())

elif(qno == 2):

body\_temp = float(input())

elif(qno == 3):

oxy\_level = float(input())

qno+=1

print('Answer the following questions with Y/N.')

for i in range(len(yesnoqs)):

print(yesnoqs[i])

ans = input()

if(i == 0 and (ans == 'Y' or ans == 'y')):

flu+=1

cold+=1

c19+=1

pneumonia+=1

elif(i == 1 and (ans == 'Y' or ans == 'y')):

flu+=1

cold+=1

elif(i == 2 and (ans == 'Y' or ans == 'y')):

cold+=1

c19+=1

elif(i == 3 and (ans == 'Y' or ans == 'y')):

flu+=1

elif(i == 4 and (ans == 'Y' or ans == 'y')):

c19+=1

elif(i == 5 and (ans == 'Y' or ans == 'y')):

flu+=1

c19+=1

pneumonia+=1

elif(i == 6 and (ans == 'Y' or ans == 'y')):

flu+=1

c19+=1

pneumonia+=1

elif(i == 7 and (ans == 'Y' or ans == 'y')):

flu+=5

elif(i == 8 and (ans == 'Y' or ans == 'y')):

pneumonia+=5

elif(i == 9 and (ans == 'Y' or ans == 'y')):

c19+=5

if(flu == 0 and cold == 0 and c19 == 0 and pneumonia == 0):

print('Congratulations! You are healthy!')

else:

max\_index = 0

max = -1

dis = [flu, cold, c19, pneumonia]

for i in range(4):

if(dis[i] > max):

max\_index = i

max = dis[i]

disease = ''

if(max\_index == 0):

disease = 'Flu'

elif(max\_index == 1):

disease = 'Common Cold'

elif(max\_index == 2):

disease = 'Covid 19'

elif(max\_index == 3):

disease = 'Pneumonia'

print('Based on the symptomps, you may have ' + disease + '.')