

# Mpox Diagnostics

The World Health Organization has declared the unprecedented mpox (formally known as “Monkeypox”) outbreak that has spread around the world a public health emergency, a decision that will empower the agency to take additional measures to try to curb the virus’s spread. You realize that with its airport, port, train station and countless roads, Tampa is going to be a prime location for a mpox outbreak. You feel the need to do something about it.

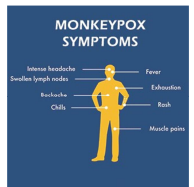
You've decided to use the skills that you have developed in COP 5008 to create a mpox diagnostic program that people can use in order to find out if they might have mpox. Your program will ask the person a number of different questions and then, based on their answers, you will make a determination as to if they might have mpox and if they should seek further medical attention.

You have done some research on the mpox virus and you've learned what happens when you get it. The mpox virus is spread through close contact, mainly through direct exposure to lesions, to contaminated clothing or linens, or through respiratory droplets. Mpox can also spread through respiratory droplets to people in close proximity after prolonged exposure (over three hours).

Symptoms of mpox can include rash, fever, swollen lymph nodes and body aches. So far, no deaths from the virus have been reported in the United States or Europe, even as case counts have risen. The median incubation period is 7 days (with a range of 3 to 20).

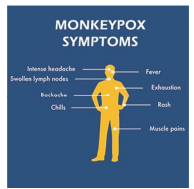
You are going to create a program that starts by asking for user's name. It will then ask the user 10 different questions. Based on their response to each question, you will assign their answer a numerical value. After all of the questions have been answered, you will add up their score and then make a diagnosis of if you believe that they may have mpox.

The questions that you will ask and their numerical value will be as follows:



Question #	Question	Depends on	Numerical score
1	Have you been having headaches?		1
2	Have you been having severe headaches?	Question #1	2
3	Have you had a fever?		3
4	Do you have swollen lymph nodes?		3
5	Do you feel exhausted?		2
6	Do you have a backache?		2
7	Are you experiencing chills?		3
8	Do you have a rash?		3
9	Do you have a rash in / on your genitals?	Question #8	4
10	Do you have muscle pains?		2

Your program will open the data file "HW #1.txt" and read in the name of a patient and then the up to 10 answers to the various questions. Having done this, you will then print out the user's name and their answers to each question. Having done this, you will then tell the user what their calculated score is. If the calculated value of the user's answers is greater than or equal to 15 then you will tell them **"You may have mpox, please see a doctor"**. If their calculated value is less than 15, then you will tell them **"You probably do not have mpox"**.



## Assignment Requirements:

1. You are required to electronically submit a working copy of your program via Repl.it.

Your code must contain the following comment header:

```
#  
#  
# COP 5008 Homework #1 - Mpox Diagnostics  
#  
# (Your Name)  
#
```

## Sample Output:

*Patient Name: Paul Johnson*

```
Have you been having headaches? Yes  
Have you been having severe headaches? No  
Have you had a fever? Yes  
Do you have swollen lymph nodes? No  
Do you feel exhausted? Yes  
Do you have a backache? Yes  
Are you experiencing chills? No  
Do you have a rash? No  
Do you have muscle pains? Yes  
== > You probably do not have mpox
```

## Homework #1 Notes:

1. You have to "strip" the input otherwise it will contain a "\n" and when you go to compare an input to "Yes", it won't match with "Yes\n"
2. You have to remember that each set of patient data is separated by a blank line so you have to read that line in before you start to process the next set of patient data.
3. If you use a while loop, you have to remember to read in the first patient's name before the while loop starts and then you have to remember to read in the next patient's name before you start the loop over again.

## Due

This homework is due when you take Quiz #4..

**Note:** You are only permitted to use the Python commands that we have covered in class so far. Yes, there are many more, but no, you can't use them in solving this homework!