**Exploring a simple Python shell**

create a CLI/ shell that implements the following:

When you enter the command LIST it lists the contents of the current directory

The ADD command will add the following two numbers together and provide the result

The HELP command provides a list of commands available

The EXIT command exits the shell

import os

import subprocess

def execute\_commands(command):

try:

subprocess.run(command.split())

except Exception:

print("psh: command not found: {}".format(command))

def psh\_help():

print("help, list, add, exit")

def psh\_list():

print(os.listdir())

def psh\_add(command):

nums = command.split()

print("the total of first two numbers :" )

print(int(nums[1]) + int(nums[2]))

def main():

while True:

command = input("CMD: ")

if command == "list":

psh\_list()

if command == "help":

psh\_help()

elif command.startswith('add'):

psh\_add(command)

elif command == 'exit':

break

else:

execute\_commands(command)

if \_\_name\_\_ == '\_\_main\_\_':

main()

What are the two main security vulnerabilities with your shell?

data injection

What is one recommendation you would make to increase the security of the shell?

data input validation

Add a section to your e-portfolio that provides a (pseudo)code example of

changes you would make to the shell to improve its security?

# Test for only numeric characters

nums= command.split()

try:

print(int nums[1]) + int nums[2]))

except:

print("Only numbers can be added")