Created: SMR **VDAC - ROHITHMISSION- 2022H2**

Date: 15th Sep 2022

Command: *tasklist*

Displays a list of currently running processes on the local computer or on a remote computer. Please find below is the screenshot for your reference

```
C:\Users\91998>tasklist

Image Name                     PID Session Name        Session#    Mem Usage
========================= ======== ================ =========== ============
System Idle Process              0 Services                   0          8 K
System                           4 Services                   0      3,020 K
Registry                       124 Services                   0     53,268 K
smss.exe                       536 Services                   0        488 K
csrss.exe                      960 Services                   0      3,032 K
wininit.exe                    996 Services                   0      3,700 K
services.exe                   864 Services                   0     10,760 K
lsass.exe                      656 Services                   0     27,388 K
svchost.exe                   1128 Services                   0     55,136 K
fontdrvhost.exe               1156 Services                   0        992 K
WUDFHost.exe                  1188 Services                   0      3,156 K
svchost.exe                   1324 Services                   0     28,300 K
svchost.exe                   1380 Services                   0      6,220 K
WUDFHost.exe                  1476 Services                   0      5,324 K
svchost.exe                   1612 Services                   0      6,308 K
```

Task:

Step1:

*Write a program, run the above command(**tasklist**) by using subprocess module and process the command output and finally display the program output as a dictionary where the **service names** (Image Name) are the dictionary keys and respective **PID's** are the dictionary values.*

Expected Output Structure:

{"System Idle Process": 0,

"System": 4,

"Registry": 124,

|

|

"svchost": 1612

}

Step2:

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*Define a function with the name **filter_services and** that can take two parameters and **returns** a dictionary.*

The first parameter is the dictionary contains the service names are the keys and respective PIDs are the values. And the second parameter should be the search string that can service starts with. The function should return a dict with filtered service names along with their PIDs.

The below is the template for the function prototype:

```
def filter_services(dict_all_services, service_start_with):
    filtered_dict = {}
    # Write your logic

    return filtered_dict
```

Note: The dictionary dict_all_services is the dictionary that you generated from step1.

***Step3:** Define a function to return all running services (by using the **tasklist** command)*

***Step4:** Define a function that should return a dictionary and which contains all the service names and the respective memory usage of each service.*

***Step5:** Define a function that should take the service name as the parameter and returns the memory in MB.*

***Step6:** Define a function that should take a service name as the parameter and that should return the PID of the service*

***Step7:** Define a function, that should take PID as the parameter and returns the service name*

***Step8:** Write a function return True if the service starts with a given character.*

----------*END*----------