

# SECURE CODING

## LAB-4

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Mid-Level

Write a python code to print hello world.

Python script: print('Hello World!')

```
Command Prompt
Microsoft Windows [Version 10.0.19042.804]
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C:\Users\Akash varma>cd C:\Users\Akash varma\OneDrive\Documents\wintersem\sc lab

C:\Users\Akash varma\OneDrive\Documents\wintersem\sc lab>python3 helloworld.py
Hello world!
```

Convert the script into executable (use pyinstaller)

```
G:\Secure Coding LABS\lab4>pyinstaller -F 18BCN7081.py
401 INFO: PyInstaller: 4.2
401 INFO: Python: 3.9.0
417 INFO: Platform: Windows-10-10.0.19041-SP0
417 INFO: wrote G:\Secure Coding LABS\lab4\18BCN7081.spec
417 INFO: UPX is not available.
432 INFO: Extending PYTHONPATH with paths
['G:\\Secure Coding LABS\\lab4', 'G:\\Secure Coding LABS\\lab4']
517 INFO: checking Analysis
16652 INFO: Updating manifest in G:\Secure Coding LABS\lab4\build\18BCN7081\run.exe.ss
16907 INFO: Updating resource type 24 name 1 language 0
16922 INFO: Appending archive to EXE G:\Secure Coding LABS\lab4\dist\18BCN7081.exe
18041 INFO: Building EXE from EXE-00.toc completed successfully.
```

- Schedule a task named “Python execution” to run the above executable on the first Monday of every month.

```
C:\Users\Akash varma\OneDrive\Documents\wintersem\sc lab>schtasks /create /sc monthly /mo first /d mon /tn "Python Execution" /tr "helloworld.exe"
SUCCESS: The scheduled task "Python Execution" has successfully been created.

C:\Users\Akash varma\OneDrive\Documents\wintersem\sc lab>
```

## Intermediate

- Schedule a task named “Executor” on your machine to run calculator for every five minutes starting from the specified start time with no end

```
C:\Windows\system32>schtasks /create /sc minute /mo 5 /tn "Executor" /tr "Calculator.exe" /st 17:30
SUCCESS: The scheduled task "Executor" has successfully been created.

C:\Windows\system32>
```

- Schedule a task named “Executor2” to run notepad starting at 5:00PM and automatically terminating at 5:40PM hours every day

```
C:\Windows\system32>schtasks /create /sc daily /tn "Executor2" /tr "notepad.exe" /st 17:00 /et 17:40
SUCCESS: The scheduled task "Executor2" has successfully been created.

C:\Windows\system32>
```

- Schedule a task to defragment any of your local disk daily at 10AM

```
C:\Users\Akash varma\OneDrive\Documents\wintersem\sc lab>schtasks /create /sc daily /tn "Defragment E Daily 19BCN7260" /tr "defrag.exe E:"  
SUCCESS: The scheduled task "Defragment E Daily 19BCN7260" has successfully been created.  
C:\Users\Akash varma\OneDrive\Documents\wintersem\sc lab>
```

## Attrib Commands

+r = This assigns the read-only file attribute to the file or directory.

-r = This removes the read-only attribute.

+s = This assigns the system file attribute to the file or directory.

-s = This removes the system attribute.

+h = This assigns the hidden file attribute to the file or directory.

-h = This removes the hidden attribute.

+c = This assigns the compressed file attribute to the file or directory.

-c = This removes the compressed attribute

Write a script to perform the following

-To lock your PC

```
C:\Users\Akash varma\OneDrive\Documents\wintersem\sc lab>rundll32.exe user32.dll, LockWorkStation  
C:\Users\Akash varma\OneDrive\Documents\wintersem\sc lab>
```

-To clear your recycle bin.

```
C:\WINDOWS\system32>rmdir /s %systemdrive%\$Recycle.bin  
C:\$Recycle.bin, Are you sure (Y/N)? y  
C:\WINDOWS\system32>
```

## Powercfg

Powercfg is a very powerful command for managing and tracking how your computer uses energy

```
C:\Windows\system32>powercfg /energy  
Enabling tracing for 60 seconds...  
Observing system behavior...  
Analyzing trace data...  
Analysis complete.  
  
Energy efficiency problems were found.  
  
3 Errors  
4 Warnings  
60 Informational  
  
See C:\Windows\system32\energy-report.html for more details.
```

Examines the system for common energy-efficiency and battery life problems.

```
C:\WINDOWS\system32>powercfg /lastwake
Wake History Count - 1
Wake History [0]
  Wake Source Count - 1
  Wake Source [0]
    Type: Fixed Feature
    Power Button

C:\WINDOWS\system32>
```

shows the information about what woke the system from the last sleep transition.

```
C:\Windows\system32>powercfg /hibernate on
C:\Windows\system32>powercfg /hibernate off
```

Will turn hibernate feature on and off.

```
C:\Windows\system32>powercfg /a
The following sleep states are available on this system:
    Standby (S3)

The following sleep states are not available on this system:
    Standby (S1)
        The system firmware does not support this standby state.

    Standby (S2)
        The system firmware does not support this standby state.

    Hibernate
        Hibernation has not been enabled.

    Standby (S0 Low Power Idle)
        The system firmware does not support this standby state.

    Hybrid Sleep
        Hibernation is not available.

    Fast Startup
        Hibernation is not available.
```

shows the sleep states in available system

```
C:\WINDOWS\system32>powercfg /devicequery s1_supported
Realtek Hardware Support Application
Speakers (Realtek(R) Audio)
Microsoft Wi-Fi Direct Virtual Adapter #3
Microsoft Wi-Fi Direct Virtual Adapter #4
HID-compliant vendor-defined device (001)
Microsoft XPS Document Writer
USB Input Device
Root Print Queue
USB Root Hub (USB 3.0)
USB Input Device (001)
Volume Manager
USB Input Device (002)
WAN Miniport (PPPOE)
Microsoft Basic Display Driver
Realtek Bluetooth Adapter
Realtek Audio Universal Service
Microsoft Bluetooth Enumerator
WAN Miniport (PPTP)
USB Composite Device (001)
Microsoft Hyper-V Virtualization Infrastructure Driver
Microphone Array (Realtek(R) Audio)
WAN Miniport (IKEv2)
Composite Bus Enumerator
HID-compliant vendor-defined device (002)
Microsoft Virtual Drive Enumerator
Generic PnP Monitor
Microsoft Storage Spaces Controller
Bluetooth Device (RFCOMM Protocol TDI)
Bluetooth Device (Personal Area Network)
Microsoft Kernel Debug Network Adapter
USB Root Hub (USB 3.0) (001)
Fax
Microsoft Print to PDF
Windows Hello Face Software Device
UMBus Root Bus Enumerator
Charge Arbitration Driver
Realtek Asio Component
Realtek Audio Effects Component
ACPI x64-based PC
HID Keyboard Device (002)
WAN Miniport (Network Monitor)
WAN Miniport (IP)
Microsoft Basic Render Driver
WAN Miniport (SSTP)
A-Volute Nh3 Audio Effects Component
HID-compliant vendor-defined device (004)
```