

Secure Coding Lab-4

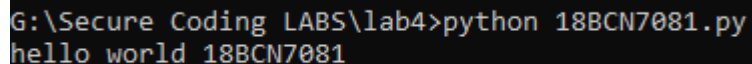
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18BCN7081
L39+L40

Mid-Level

- Write a python script to print hello world.

Python script :

```
print('hello world 18BCN7081')
```



```
G:\Secure Coding LABS\lab4>python 18BCN7081.py  
hello world 18BCN7081
```

- Convert the script into executable (use pyinstaller or py2exe – any of your choice).

```
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  
517 INFO: Building Analysis because Analysis-00.toc is non  
existent  
517 INFO: Initializing module dependency graph...  
533 INFO: Caching module graph hooks...
```

533 WARNING: Several hooks defined for module
'win32ctypes.core'. Please take care they do not conflict.
571 INFO: Analyzing base_library.zip ...
7244 INFO: Processing pre-find module path hook distutils from
'c:\\users\\javvadi\\appdata\\local\\programs\\python\\python39\\
\\lib\\site-packages\\PyInstaller\\hooks\\pre_find_module_path\\hook-distutils.py'.
7245 INFO: distutils: retargeting to non-venv dir
'c:\\users\\javvadi\\appdata\\local\\programs\\python\\python39\\
\\lib'
13460 INFO: Caching module dependency graph...
13590 INFO: running Analysis Analysis-00.toc
13597 INFO: Adding Microsoft.Windows.Common-Controls to
dependent assemblies of final executable
 required by
c:\\users\\javvadi\\appdata\\local\\programs\\python\\python39\\python.exe
13742 WARNING: lib not found: api-ms-win-core-path-l1-1-0.dll
dependency of
c:\\users\\javvadi\\appdata\\local\\programs\\python\\python39\\python39.dll
13785 INFO: Analyzing G:\\Secure Coding LABS\\lab4\\18BCN7081.py
13808 INFO: Processing module hooks...
13809 INFO: Loading module hook 'hook-difflib.py' from
'c:\\users\\javvadi\\appdata\\local\\programs\\python\\python39\\
\\lib\\site-packages\\PyInstaller\\hooks'...
13811 INFO: Excluding import of doctest from module difflib
13812 INFO: Loading module hook 'hook-distutils.py' from
'c:\\users\\javvadi\\appdata\\local\\programs\\python\\python39\\
\\lib\\site-packages\\PyInstaller\\hooks'...
13815 INFO: Loading module hook 'hook-distutils.util.py' from
'c:\\users\\javvadi\\appdata\\local\\programs\\python\\python39\\
\\lib\\site-packages\\PyInstaller\\hooks'...
13818 INFO: Excluding import of lib2to3.refactor from module
distutils.util
13819 INFO: Loading module hook 'hook-encodings.py' from
'c:\\users\\javvadi\\appdata\\local\\programs\\python\\python39\\
\\lib\\site-packages\\PyInstaller\\hooks'...
13929 INFO: Loading module hook 'hook-heapq.py' from
'c:\\users\\javvadi\\appdata\\local\\programs\\python\\python39\\
\\lib\\site-packages\\PyInstaller\\hooks'...

13933 INFO: Excluding import of doctest from module heapq
13933 INFO: Loading module hook 'hook-lib2to3.py' from
'c:\\users\\javvadi\\appdata\\local\\programs\\python\\python39\\
\\lib\\site-packages\\PyInstaller\\hooks'...
13994 INFO: Loading module hook 'hook-multiprocessing.util.py'
from
'c:\\users\\javvadi\\appdata\\local\\programs\\python\\python39\\
\\lib\\site-packages\\PyInstaller\\hooks'...
13997 INFO: Excluding import of test.support from module
multiprocessing.util
13998 INFO: Excluding import of test from module
multiprocessing.util
14000 INFO: Loading module hook 'hook-pickle.py' from
'c:\\users\\javvadi\\appdata\\local\\programs\\python\\python39\\
\\lib\\site-packages\\PyInstaller\\hooks'...
14002 INFO: Excluding import of argparse from module pickle
14002 INFO: Loading module hook 'hook-sysconfig.py' from
'c:\\users\\javvadi\\appdata\\local\\programs\\python\\python39\\
\\lib\\site-packages\\PyInstaller\\hooks'...
14066 INFO: Loading module hook 'hook-xml.etree.cElementTree.py'
from
'c:\\users\\javvadi\\appdata\\local\\programs\\python\\python39\\
\\lib\\site-packages\\PyInstaller\\hooks'...
14069 INFO: Loading module hook 'hook-xml.py' from
'c:\\users\\javvadi\\appdata\\local\\programs\\python\\python39\\
\\lib\\site-packages\\PyInstaller\\hooks'...
14290 INFO: Loading module hook 'hook-_tkinter.py' from
'c:\\users\\javvadi\\appdata\\local\\programs\\python\\python39\\
\\lib\\site-packages\\PyInstaller\\hooks'...
14562 INFO: checking Tree
14562 INFO: Building Tree because Tree-00.toc is non existent
14564 INFO: Building Tree Tree-00.toc
14658 INFO: checking Tree
14659 INFO: Building Tree because Tree-01.toc is non existent
14662 INFO: Building Tree Tree-01.toc
14775 INFO: checking Tree
14775 INFO: Building Tree because Tree-02.toc is non existent
14779 INFO: Building Tree Tree-02.toc
14816 INFO: Looking for ctypes DLLs
14849 INFO: Analyzing run-time hooks ...

14852 INFO: Including run-time hook
'c:\\users\\javvadi\\appdata\\local\\programs\\python\\python39\\lib\\site-packages\\PyInstaller\\hooks\\rthooks\\pyi_rth_multiprocessing.py'
14876 INFO: Looking for dynamic libraries
15221 INFO: Looking for eggs
15221 INFO: Using Python library
c:\\users\\javvadi\\appdata\\local\\programs\\python\\python39\\python39.dll
15224 INFO: Found binding redirects:
[]
15229 INFO: Warnings written to G:\\Secure Coding
LABS\\lab4\\build\\18BCN7081\\warn-18BCN7081.txt
15299 INFO: Graph cross-reference written to G:\\Secure Coding
LABS\\lab4\\build\\18BCN7081\\xref-18BCN7081.html
15359 INFO: checking PYZ
15359 INFO: Building PYZ because PYZ-00.toc is non existent
15361 INFO: Building PYZ (ZlibArchive) G:\\Secure Coding
LABS\\lab4\\build\\18BCN7081\\PYZ-00.pyz
15898 INFO: Building PYZ (ZlibArchive) G:\\Secure Coding
LABS\\lab4\\build\\18BCN7081\\PYZ-00.pyz completed successfully.
15930 INFO: checking PKG
15930 INFO: Building PKG because PKG-00.toc is non existent
15931 INFO: Building PKG (CArchive) PKG-00.pkg
18229 INFO: Building PKG (CArchive) PKG-00.pkg completed
successfully.
18232 INFO: Bootloader
c:\\users\\javvadi\\appdata\\local\\programs\\python\\python39\\lib\\site-packages\\PyInstaller\\bootloader\\Windows-64bit\\run.exe
18233 INFO: checking EXE
18235 INFO: Building EXE because EXE-00.toc is non existent
18235 INFO: Building EXE from EXE-00.toc
18368 INFO: Copying icons from
['c:\\users\\javvadi\\appdata\\local\\programs\\python\\python39\\lib\\site-packages\\PyInstaller\\bootloader\\images\\icon-console.ico']
18442 INFO: Writing RT_GROUP_ICON 0 resource with 104 bytes
18443 INFO: Writing RT_ICON 1 resource with 3752 bytes
18445 INFO: Writing RT_ICON 2 resource with 2216 bytes
18447 INFO: Writing RT_ICON 3 resource with 1384 bytes
18447 INFO: Writing RT_ICON 4 resource with 37019 bytes

```

18448 INFO: Writing RT_ICON 5 resource with 9640 bytes
18449 INFO: Writing RT_ICON 6 resource with 4264 bytes
18449 INFO: Writing RT_ICON 7 resource with 1128 bytes
18463 INFO: Updating manifest in G:\Secure Coding
LABS\lab4\build\18BCN7081\run.exe.rawka8ta
18528 INFO: Updating resource type 24 name 1 language 0
18533 INFO: Appending archive to EXE G:\Secure Coding
LABS\lab4\dist\18BCN7081.exe
18633 INFO: Building EXE from EXE-00.toc completed successfully.

```

```

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.

```

Local Disk (G:) > Secure Coding LABS > lab4

Name	Date modified	Type	Size
 18BCN7081.exe	27-02-2021 12:54	Application	6,689 KB
 18BCN7081.py	27-02-2021 13:01	Python File	1 KB

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

```

G:\Secure Coding LABS\lab4>schtasks /create /sc monthly /mo
first /d mon /tn "Python Execution" /tr "18BCN7081.exe"
SUCCESS: The scheduled task "Python Execution" has successfully
been created.

```

```
G:\Secure Coding LABS\lab4>schtasks /create /sc monthly /mo first /d mon /tn "Python Execution" /tr "18BCN7081.exe"
SUCCESS: The scheduled task "Python Execution" has successfully been created.

G:\Secure Coding LABS\lab4>
```

Intermediate

- Schedule a task named "Executer" 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
"Executer" /tr "Calculator.exe" /st 17:30
SUCCESS: The scheduled task "Executer" has successfully been
created.
```

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

C:\Windows\system32>
```

- Schedule a task named "Executer2" to run notepad starting at 5:00PM and automatically terminating at 5:40PM hours every day

```
C:\Windows\system32>schtasks /create /sc daily /tn "Executer2"
/tr "notepad.exe" /st 17:00 /et 17:40
SUCCESS: The scheduled task "Executer2" has successfully been
created.
```

```
C:\Windows\system32>schtasks /create /sc daily /tn "Executer2" /tr "notepad.exe" /st 17:00 /et 17:40
SUCCESS: The scheduled task "Executer2" has successfully been created.

C:\Windows\system32>
```

Advanced

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

```
C:\Windows\system32>schtasks /create /sc daily /tn "Defragment  
E Daily 18BCN7081" /tr "defrag.exe E:"  
SUCCESS: The scheduled task "Defragment E Daily 18BCN7081" has  
successfully been created.
```

```
C:\Windows\system32>schtasks /create /sc daily /tn "Defragment E Daily 18BCN7081" /tr "defrag.exe E:"  
SUCCESS: The scheduled task "Defragment E Daily 18BCN7081" has successfully been created.  
C:\Windows\system32>
```

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.

```
C:\>attrib
A SHR          C:\bootmgr
A SH           C:\BOOTNXT
A SH           C:\DumpStack.log.tmp
A SH I         C:\hiberfil.sys
A SH           C:\pagefile.sys
A SH           C:\swapfile.sys
```

```
E:\>attrib
A           E:\18BCN7081.exe
A           E:\18BCN7081.pdf
A           E:\18BCN7081.txt
```

```
E:\>attrib +r +h 18BCN7081.exe
E:\>attrib +s 18BCN7081.pdf
```

```
E:\>attrib
A HR          E:\18BCN7081.exe
A S           E:\18BCN7081.pdf
A             E:\18BCN7081.txt
```

```
E:\>attrib -r -h 18BCN7081.exe
E:\>attrib -s 18BCN7081.pdf
E:\>attrib
A           E:\18BCN7081.exe
A           E:\18BCN7081.pdf
A           E:\18BCN7081.txt
```

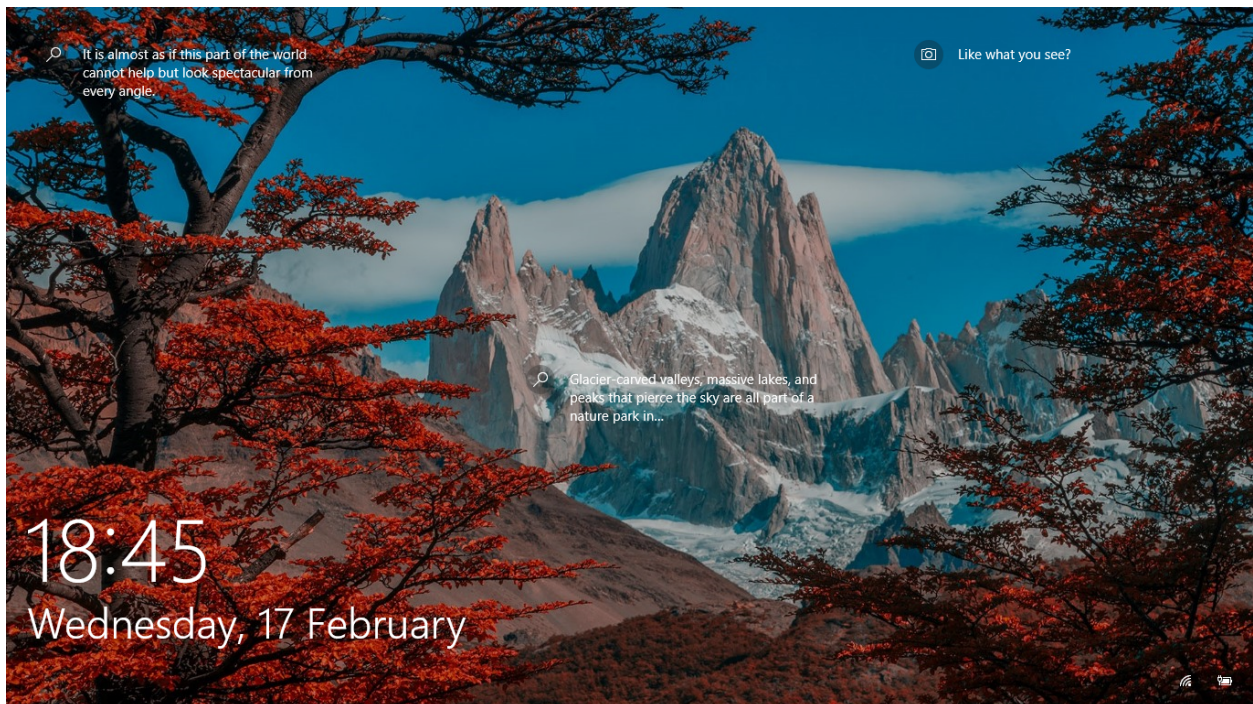

Write a script to perform the following jobs

- To lock your PC(Win + L)

CMD Script:

```
rundll32.exe user32.dll, LockWorkStation
```

```
C:\Users\JAVVADI>rundll32.exe user32.dll, LockWorkStation  
C:\Users\JAVVADI>
```



- To clear your recycle bin

CMD Script:

```
rmdir /s %systemdrive%\$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
```

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
Root Print Queue
Volume Manager
WAN Miniport (PPPOE)
OneNote (Desktop)
Generic software component
Microsoft Basic Display Driver
Generic PnP Monitor
Microsoft Print to PDF
WAN Miniport (PPTP)
Microsoft Hyper-V Virtualization Infrastructure Driver
USB Root Hub (USB 3.0)
WAN Miniport (IKEv2)
Composite Bus Enumerator
Microsoft Virtual Drive Enumerator
Microsoft Storage Spaces Controller
Microsoft Kernel Debug Network Adapter
Fax
OneNote for Windows 10
Stereo Mix (Realtek High Definition Audio)
UMBus Root Bus Enumerator
Charge Arbitration Driver
ACPI x64-based PC
WAN Miniport (Network Monitor)
WAN Miniport (IP)
Microsoft XPS Document Writer
Microsoft Basic Render Driver
USB Root Hub (USB 3.0) (001)
WAN Miniport (SSTP)
Realtek Bluetooth 4.2 Adapter
Microsoft Wi-Fi Direct Virtual Adapter
Microsoft Wi-Fi Direct Virtual Adapter #2
AMD High Definition Audio Device
NDIS Virtual Network Adapter Enumerator
Speaker/Headphone (Realtek High Definition Audio)
Generic USB Hub
Synaptics Service binaries
Microphone Array (Realtek High Definition Audio)
Microsoft System Management BIOS Driver
Plug and Play Software Device Enumerator
Remote Desktop Device Redirector Bus
WAN Miniport (IPv6)
```

To list the devices that supports waking PC from S1 state

Submitted By
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