

Secure Coding Lab-4

K.Bala Eswar

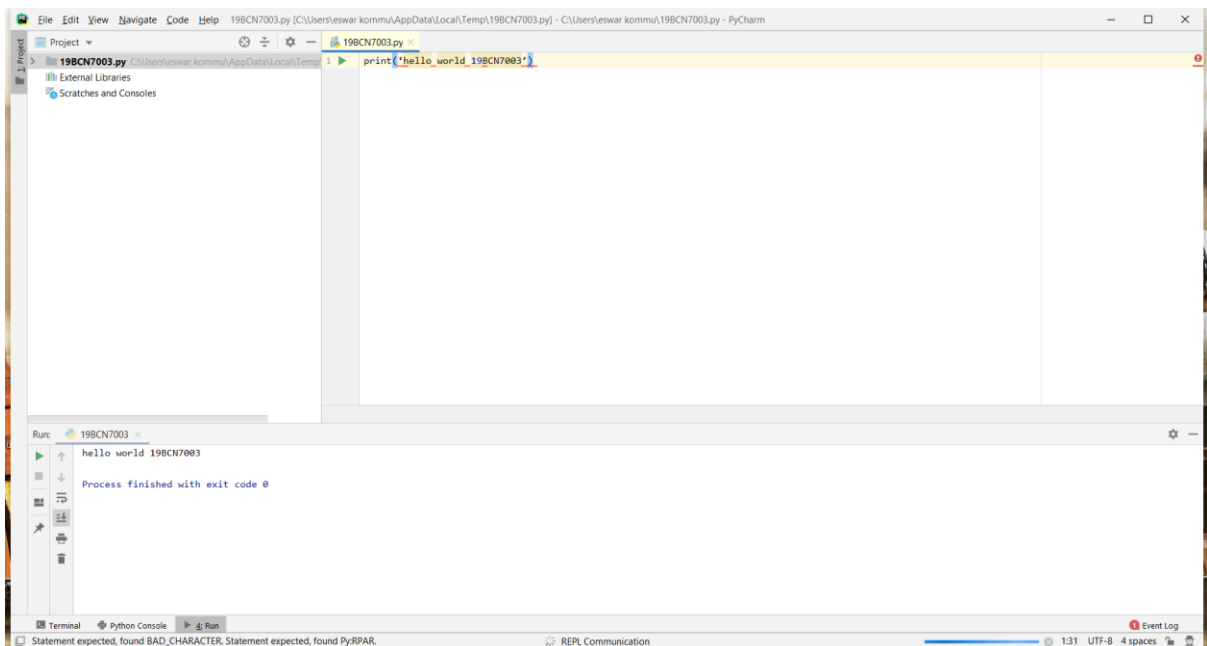
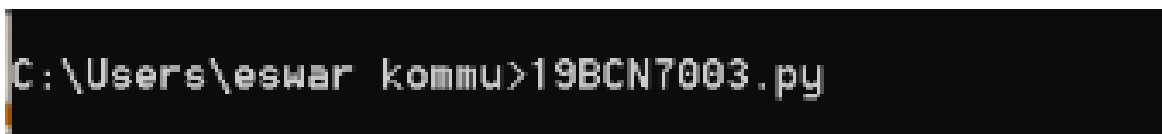
19BCN7003

Mid-level

Write a python programme to print Hello World.

Python script :

```
print('hello world 19BCN7244')
```



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

```
G:\Secure Coding LABS\lab4>pyinstaller -F 19BCN7003.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\19BCN7003.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\\SRINEHA\\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\\ESWAR\\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\\ESWAR\\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\\ESWAR\\appdata\\local\\programs\\python\\python39\\python39.dll 13785

INFO: Analyzing G:\Secure Coding LABS\lab4\19BCN7244.py

13808 INFO: Processing module hooks...

13809 INFO: Loading module hook 'hook-difflib.py' from 'c:\\users\\ESWAR\\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\\ESWAR\\appdata\\local\\programs\\python\\python39\\lib\\site-packages\\PyInstaller\\hooks'...

13815 INFO: Loading module hook 'hook-distutils.util.py' from 'c:\\users\\ESWAR\\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\\ESWAR\\appdata\\local\\programs\\python\\python39\\lib\\site-packages\\PyInstaller\\hooks'...

13929 INFO: Loading module hook 'hook-heapq.py' from
'c:\\users\\ESWAR\\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\\ESWAR\\appdata\\local\\programs\\python\\python39\\lib\\site-packages\\PyInstaller\\hooks'...

13994 INFO: Loading module hook 'hook-multiprocessing.util.py' from
'c:\\users\\ESWAR\\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\\ESWAR\\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\\ESWAR\\appdata\\local\\programs\\python\\python39\\lib\\site-packages\\PyInstaller\\hooks'...

14066 INFO: Loading module hook 'hook-xml.etree.cElementTree.py' from
'c:\\users\\ESWAR\\appdata\\local\\programs\\python\\python39\\lib\\site-packages\\PyInstaller\\hooks'...

14069 INFO: Loading module hook 'hook-xml.py' from
'c:\\users\\ESWAR\\appdata\\local\\programs\\python\\python39\\lib\\site-packages\\PyInstaller\\hooks'...

14290 INFO: Loading module hook 'hook-_tkinter.py' from
'c:\\users\\ESWAR\\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\\ESWAR\\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\\ESWAR\\appdata\\local\\programs\\python\\python39\\python39.dll

15224 INFO: Found binding redirects: []

15229 INFO: Warnings written to G:\\Secure Coding
LABS\\lab4\\build\\19BCN7003\\warn-19BCN7003.txt 15299 INFO: Graph cross-
reference written to G:\\Secure Coding LABS\\lab4\\build\\19BCN7244\\xref-
19BCN7244.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\\19BCN7003\\PYZ-00.pyz

15898 INFO: Building PYZ (ZlibArchive) G:\\Secure Coding
LABS\\lab4\\build\\19BCN7003\\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\\ESWAR\\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\\ESWAR\\appdata\\local\\programs\\python\\python39
\\lib\\site-packages\\PyInstaller\\bootloader\\images\\icon-cons ole.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\19BCN7003\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\19BCN7003.exe
18633 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.

```
G:\Secure Coding LABS\lab4>schtasks /create /sc monthly /mo first /d mon /tn  
"Python Execution" /tr "19BCN7003.exe"
```

SUCCESS: The scheduled task "Python Execution" has successfully been created.

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 "Executor" /tr  
"Calculator.exe" /st 17:30
```

SUCCESS: The scheduled task "Executor" has successfully been created.

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 "Executor2" /tr  
"notepad.exe" /st 17:00 /et 17:40
```

SUCCESS: The scheduled task "Executor2" has successfully been created.

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 19BCN7244" has successfully been created.

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.

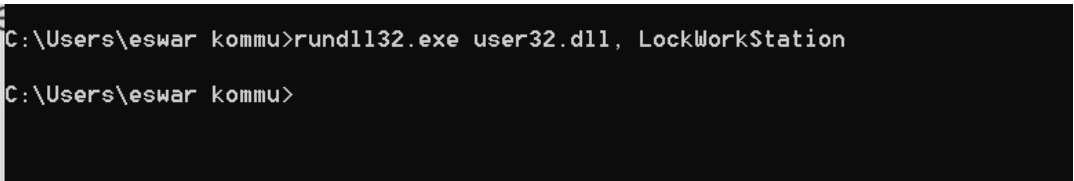
-c = This removes the compressed attribute.

Write a script to perform the following jobs

To lock your PC(Win+L)

CMD Script:

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



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

To clear your recycle bin

CMD Script:

```
rmdir /s %systemdrive%\$Recycle.bin
```

```
C:\Users\eswar kommu>rmdir /s %systemdrive%\$Recycle.bin
C:\$Recycle.bin, Are you sure (Y/N)? Y
C:\$Recycle.bin\S-1-5-18 - Access is denied.
C:\$Recycle.bin\S-1-5-~2 - Access is denied.
C:\$Recycle.bin\S-1-5-~1 - Access is denied.
Access is denied.

C:\Users\eswar kommu>
```

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