

SECURE CODING CSE2010

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Scheduled Tasks and Power Options

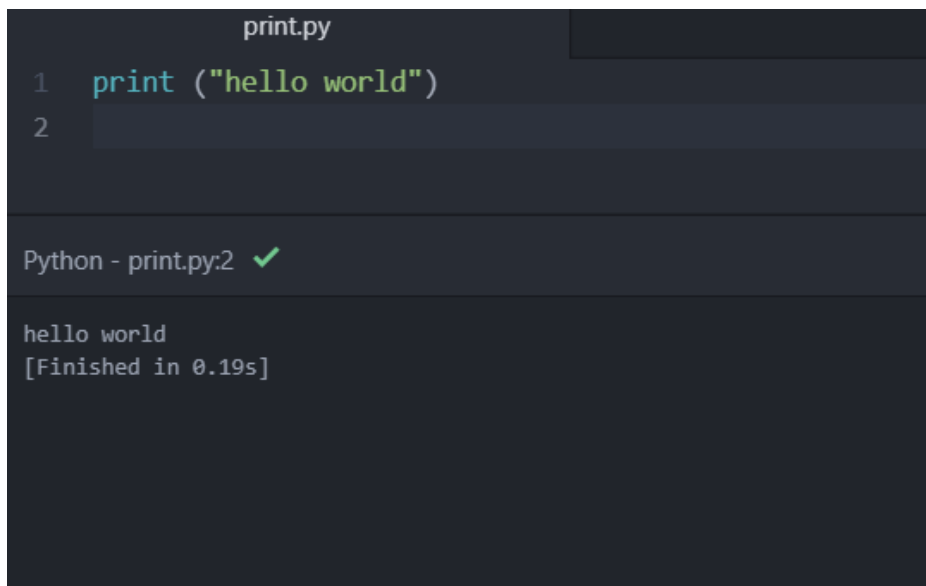
QUESTION

Write a python script to print hello world.

CODE

```
print("hello world")
```

OUTPUT

A screenshot of a code editor and terminal window. The code editor shows a file named 'print.py' with two lines of Python code: '1 print ("hello world")' and '2'. Below the code editor, the terminal output shows 'Python - print.py:2' with a green checkmark, followed by 'hello world' and '[Finished in 0.19s]'.

```
print.py
1 print ("hello world")
2

Python - print.py:2 ✓
hello world
[Finished in 0.19s]
```

QUESTION

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

CODE

```
pyinstaller --onefile -w 'print.py'
```

OUTPUT

```

print.py
1 print ("hello world")
2

36554 INFO: Building PYZ (ZlibArchive) c:\Users\romap\Documents\Sem6\Secure_lab\New folder\build\print\PYZ-00.pyz
37552 INFO: Building PYZ (ZlibArchive) c:\Users\romap\Documents\Sem6\Secure_lab\New folder\build\print\PYZ-00.pyz completed successfully.
37604 INFO: checking PKG
37605 INFO: Building PKG because PKG-00.toc is non existent
37606 INFO: Building PKG (CArchive) PKG-00.pkg
44176 INFO: Building PKG (CArchive) PKG-00.pkg completed successfully.
44182 INFO: Bootloader c:\Users\romap\appdata\local\programs\python\python39\lib\site-packages\PyInstaller\bootloader\Windows-64bit\runw.exe
44183 INFO: checking EXE
44184 INFO: Building EXE because EXE-00.toc is non existent
44185 INFO: Building EXE from EXE-00.toc
44332 INFO: Copying icons from ['c:\Users\romap\appdata\local\programs\python\python39\lib\site-packages\PyInstaller\bootloader\images\icon-windowed.ico']
44627 INFO: Writing RT_GROUP_ICON 0 resource with 104 bytes
44628 INFO: Writing RT_ICON 1 resource with 3752 bytes
44630 INFO: Writing RT_ICON 2 resource with 2216 bytes
44631 INFO: Writing RT_ICON 3 resource with 1384 bytes
44633 INFO: Writing RT_ICON 4 resource with 38188 bytes
44633 INFO: Writing RT_ICON 5 resource with 9640 bytes
44634 INFO: Writing RT_ICON 6 resource with 4264 bytes
44635 INFO: Writing RT_ICON 7 resource with 1128 bytes
44653 INFO: Updating manifest in C:\Users\romap\Documents\Sem6\Secure_lab\New folder\build\print\runw.exe.uva64wqs
44899 INFO: Updating resource type 24 name 1 language 0
44909 INFO: Appending archive to EXE C:\Users\romap\Documents\Sem6\Secure_lab\New folder\dist\print.exe
45142 INFO: Building EXE from EXE-00.toc completed successfully.
PS C:\Users\romap\Documents\Sem6\Secure_lab\New folder>

```

QUESTION

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

CODE

```

schtasks /create /sc monthly /mo first /d mon /tn
"Mytasks\python_execution" /tr
"c:\users\romap\documents\sem6\secure_lab\new
folder\dist\print.exe"

```

OUTPUT

```
C:\Users\romap>schtasks /create /sc monthly /mo first /d mon /tn "Mytasks\python_execution" /tr "c:\users\romap\document
s\sem6\secure_lab\new folder\dist\print.exe"
SUCCESS: The scheduled task "Mytasks\python_execution" has successfully been created.
C:\Users\romap>
```

```
Folder: \Mytasks
TaskName                               Next Run Time           Status
=====
python_execution                       01-03-2021 23:17:00     Ready
C:\Users\romap>
```

QUESTION

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

CODE

```
schtasks /create /sc minute /mo 5 /st 11:17 /tn
"Mytasks\Executor" /tr "c:\windows\system32\calc.exe"
```

OUTPUT

```
c:\Windows\System32>schtasks /create /sc minute /mo 5 /st 11:17 /tn "Mytasks\Executor" /tr "c:\windows\system32\calc.exe"
SUCCESS: The scheduled task "Mytasks\Executor" has successfully been created.
c:\Windows\System32>
```

```
Folder: \Mytasks
TaskName                               Next Run Time           Status
=====
Executor                               24-02-2021 11:17:00     Ready
c:\Windows\System32>
```

```
Folder: \Mytasks
TaskName                               Next Run Time           Status
=====
Executor                               24-02-2021 11:22:00     Ready
c:\Windows\System32>
```

QUESTION

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

CODE

```
schtasks /create /sc daily /st 17:00 /et 17:40 /tn
"Mytasks\Executor2" /tr "c:\windows\system32\notepad.exe"
```

OUTPUT

```
c:\Windows\System32>schtasks /create /sc daily /st 17:00 /et 17:40 /tn "Mytasks\Executor2" /tr "c:\windows\system32\notepad.exe"
SUCCESS: The scheduled task "Mytasks\Executor2" has successfully been created.
```

```
c:\Windows\System32>
```

```
Folder: \Mytasks
```

TaskName	Next Run Time	Status
=====	=====	=====
Executor	24-02-2021 11:22:00	Ready
Executor2	24-02-2021 17:00:00	Ready

```
c:\Windows\System32>
```

QUESTION

Schedule a task named "Logger" to log your internet explorer activity to a separate text file.

CODE

OUTPUT

QUESTION

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

CODE

```
schtasks /create /sc daily /st 10:00 /tn
"MyTasks\Defragment" /tr " C:\WINDOWS\SYSTEM32\defrag.exe
C:"
```

OUTPUT

```
C:\Users\romap>schtasks /create /sc daily /st 10:00 /tn "MyTasks\Defragment" /tr " C:\WINDOWS\SYSTEM32\defrag.exe C:"
SUCCESS: The scheduled task "MyTasks\Defragment" has successfully been created.
```

```
C:\Users\romap>
```

```
Folder: \Mytasks
```

TaskName	Next Run Time	Status
Defragment	27-02-2021 10:00:00	Ready

QUESTION

Attrib command

CODE

```
attrib +h +s +r /S /D hidden → to hide the files
```

```
attrib -h -s -r /S /D hidden → to show the files
```

```
attrib -h -s -r /S /D E:/*.* → shows all files in the drive, regardless of
the extension
```

OUTPUT

```

C:\Users\romap\Documents\Sem6\Secure_lab>attrib /?
Displays or changes file attributes.

ATTRIB [+R | -R] [+A | -A] [+S | -S] [+H | -H] [+O | -O] [+I | -I] [+X | -X] [+P | -P] [+U | -U]
      [drive:][path][filename] [/S [/D]] [/L]

+ Sets an attribute.
- Clears an attribute.
R Read-only file attribute.
A Archive file attribute.
S System file attribute.
H Hidden file attribute.
O Offline attribute.
I Not content indexed file attribute.
X No scrub file attribute.
V Integrity attribute.
P Pinned attribute.
U Unpinned attribute.
B SMR Blob attribute.
[drive:][path][filename]
  Specifies a file or files for attrib to process.
/S Processes matching files in the current folder
  and all subfolders.
/D Processes folders as well.
/L Work on the attributes of the Symbolic Link versus
  the target of the Symbolic Link

```

```

C:\Users\romap\Documents\Sem6\Secure_lab>attrib +h +s +r /S /D hidden

```

```

C:\Users\romap\Documents\Sem6\Secure_lab>_

```

```

C:\Users\romap\Documents\Sem6\Secure_lab>attrib -h -s -r /S /D hidden

```

```

C:\Users\romap\Documents\Sem6\Secure_lab>

```

QUESTION

Powercfg

CODE

```
powercfg /lastwake
```

```
powercfg /a
```

```
powercfg /energy
```

powercfg /devicequery all_devices → Returns a list of devices that meet the specified criteria. all_devices Returns all devices present in the system

OUTPUT

```
C:\Users\romap\Documents\Sem6\Secure_lab>powercfg /batteryreport
Battery life report saved to file path C:\Users\romap\Documents\Sem6\Secure_lab\battery-report.html.
```

```
C:\WINDOWS\system32>powercfg /lastwake
Wake History Count - 1
Wake History [0]
Wake Source Count - 0
```

```
C:\WINDOWS\system32>powercfg /a
The following sleep states are available on this system:
    Standby (S3)
    Hibernate
    Hybrid Sleep
    Fast Startup

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.

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

C:\WINDOWS\system32>
```

```
C:\WINDOWS\system32>powercfg /energy
Enabling tracing for 60 seconds...
Observing system behavior...
Analyzing trace data...
Analysis complete.

Energy efficiency problems were found.

7 Errors
31 Warnings
47 Informational

See C:\WINDOWS\system32\energy-report.html for more details.

C:\WINDOWS\system32>
```

```
C:\WINDOWS\system32>powercfg /devicequery all_devices
Mobile Intel(R) Processor Family I/O PCI Express Root Port #6 - 9D15
Stereo Mix (Realtek High Definition Audio)
Motherboard resources
Motherboard resources (001)
Motherboard resources (002)
MIDI function
Personal Area Network Service
Microsoft ACPI-Compliant Control Method Battery
ACPI Fan
ACPI Fan (001)
ACPI Fan (002)
ACPI Fan (003)
ACPI Fan (004)
ACPI Processor Aggregator
Intel(R) Display Audio
Synaptics SMBus TouchPad
Root Print Queue
PCI standard host CPU bridge
Volume Manager
Realtek Bluetooth 4.2 Adapter
Trusted Platform Module 2.0
```

QUESTION

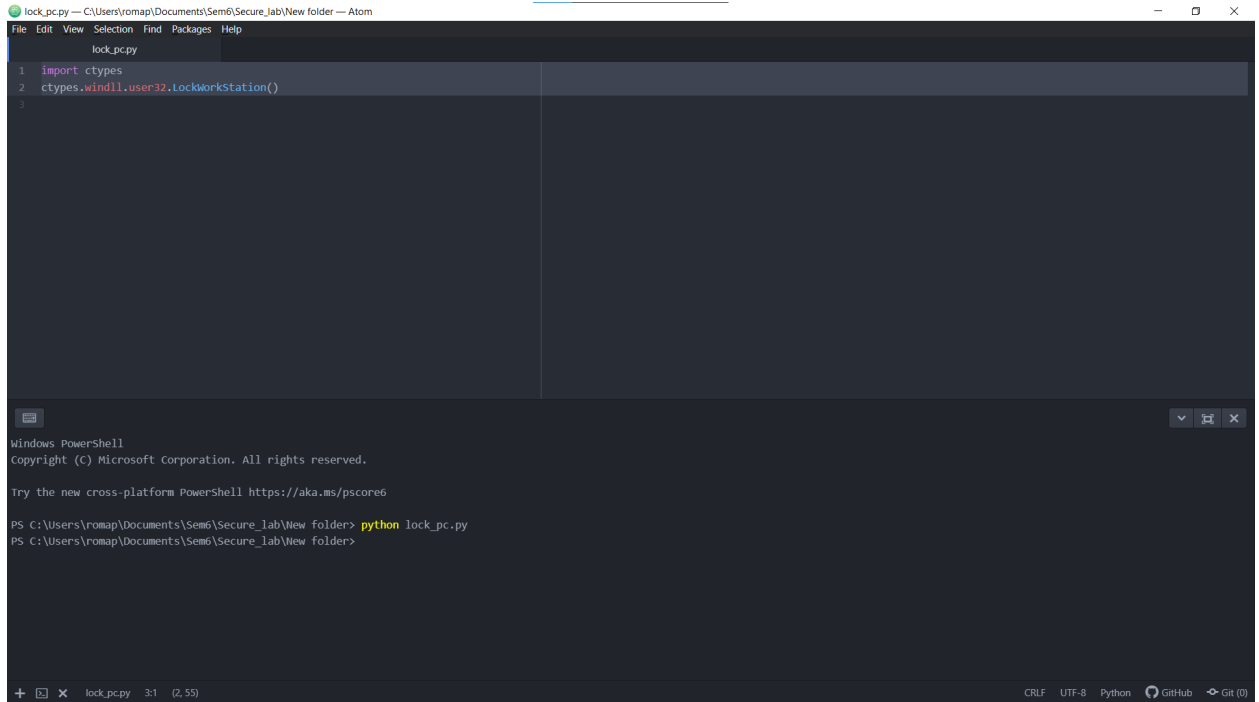
Write a script to perform the following jobs

- To lock your PC (Win + L)

CODE

```
import ctypes
ctypes.windll.user32.LockWorkStation()
```

OUTPUT



The screenshot shows the Atom text editor with a file named `lock_pc.py` open. The file contains the following Python code:

```
1 import ctypes
2 ctypes.windll.user32.LockWorkStation()
3
```

Below the editor is a Windows PowerShell terminal window. It displays the following text:

```
Windows PowerShell
Copyright (c) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\romap\Documents\Sem6\Secure_lab\New folder> python lock_pc.py
PS C:\Users\romap\Documents\Sem6\Secure_lab\New folder>
```

The status bar at the bottom of the Atom window shows the file name `lock_pc.py`, line 3, column 55, and various settings like CRLF, UTF-8, Python, and GitHub integration.

Locks the PC

QUESTION

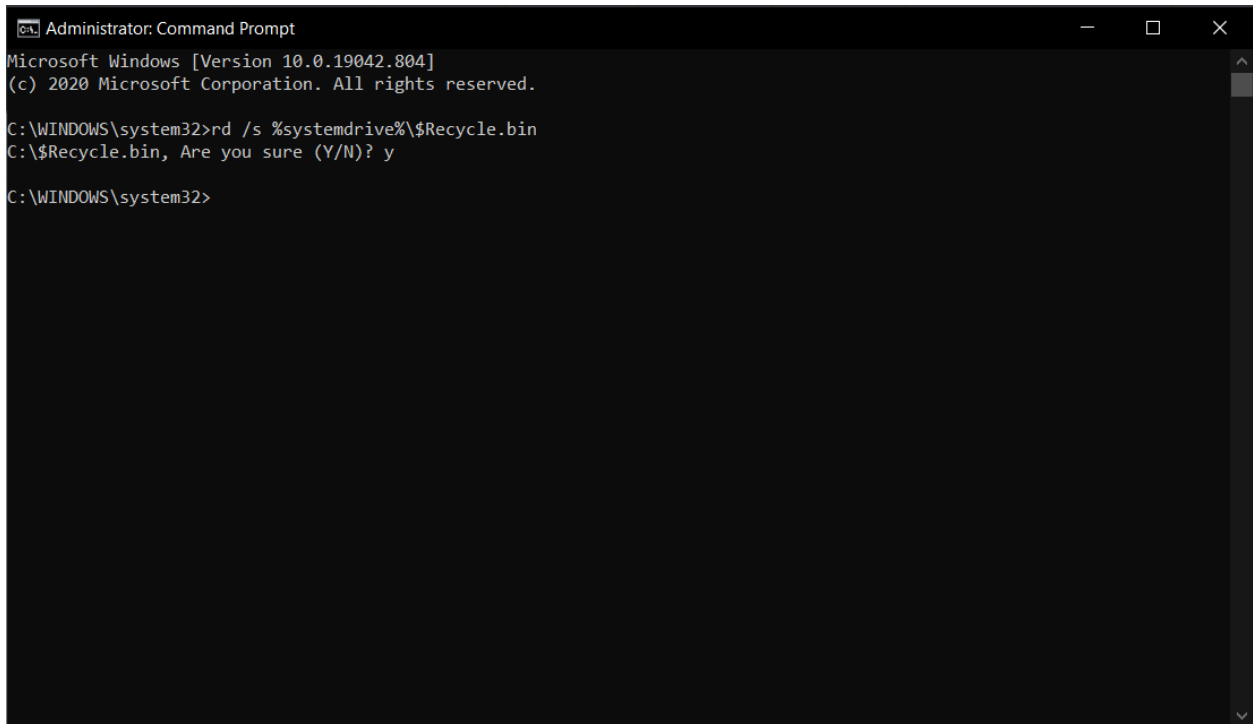
- To clear your recycle bin

CODE

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

OUTPUT

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A screenshot of a Windows Command Prompt window titled "Administrator: Command Prompt". The window shows the following text: "Microsoft Windows [Version 10.0.19042.804]", "(c) 2020 Microsoft Corporation. All rights reserved.", "C:\WINDOWS\system32>rd /s %systemdrive%\\$Recycle.bin", "C:\\$Recycle.bin, Are you sure (Y/N)? y", and "C:\WINDOWS\system32>". The window has a dark background and a light-colored text. The title bar includes standard Windows window controls (minimize, maximize, close) and a taskbar icon.

```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.19042.804]
(c) 2020 Microsoft Corporation. All rights reserved.

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

C:\WINDOWS\system32>
```

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20|02|2021