ENPM685 Homework #4 – Python

Version 3.1 – March 7th 2022

Estimated time to complete this assignment: 2 hours.

Scenario: You are in the middle of deploying an EDR (endpoint detection and response) solution to your organization and you want to compare your list of all systems in your Active Directory (AD) environment to the list of systems that are registered with your EDR tool's management server.

You have been provided 3 files

- **ad.csv** – A list of all systems enrolled in your AD environment
- **edr.csv** – A list of all systems enrolled in the EDR solution
- **edr-sample.csv** – A list of 10 systems enrolled in the EDR solution you can use while testing

These files are in the Homework folder of ELMS and are also available from https://glue.umd.edu/~kts/enpm685/hw4-data.zip

You need to compare the lists and output the remaining systems that need to still enroll in the EDR solution into a CSV file (.csv) named **remaining.csv**. The information in the CSV **MUST** include hostname, OS version, and OS build version and you **MUST** include a header at the top of your CSV output. Sample output:


```
Hostname,Operating System,Build
ENGRLT-7VTXY2,Windows 10 Enterprise,19044
ENGRLT022L2J3,Windows 10 Enterprise,19044
ENGRLT069HM2,Windows 10 Enterprise,19042
ENGRLT0CCST2,Windows 10 Enterprise,19042
ENGRLT0H4BC3,Windows 10 Enterprise,19043
ENGRLT0V6733,Windows 10 Enterprise,19043
ENGRLT0YQ4H2,Windows 10 Enterprise,19042
ENGRLT11XDFB3,Windows 10 Enterprise,19042
ENGRLT165YD3,Windows 10 Enterprise,19043
```

Your script **MUST** also include stats from processing of the number of systems that have enrolled in the EDR solution and the number of systems that still needs to enroll in the EDR solution. Below is the output after running against the **edr-sample.csv** sample data you can use this to verify your script is working properly before testing against the full list from the EDR solution:

Note: You MUST use Python 3 for this assignment.

```
Output of remaining systems to install EDR on written to remaining.csv

Systems enrolled in EDR: 10
Systems needing to be enrolled in EDR: 1385
```

Deliverable:

Your code

Rubric:

5 points – The code works and outputs the CSV file and stats as outlined in the requirements above

2.5 points – The code works but does not output the CSV file or stats as outlined in the requirements above

0 points – The code does not work or is not submitted.