AMERICAN UNIVERSITY OF BEIRUT
MAROUN SEMAAN FACULTY OF ENGINEERING & ARCHITECTURE

American University of Beirut

School of Engineering and Architecture

Department of Electrical and Computer Engineering

EECE 503J

Lab 1 – CMD Commands

Date assigned: Thursday 25h of January 2024 – 5:00 PM
Date Due: Thursday 1st of February 2024 – 11:59 PM

General Rules:

- **Submissions are not allowed after 24 hours from the deadline**. For any additional hour after the deadline, a penalty of 4% will be applied.
- **Cheating or copying** other students' work will get all the involved students a zero grade. We do not care if someone copied your work or who copied from whom, plus a disciplinary committee and a warning from the dean. The assignment should be unique.
- **Any form of plagiarism or academic misconduct is prohibited. I have a zero-tolerance policy concerning this**.
- **Make sure that your submitted files are not corrupt or empty.** You are responsible for the accuracy and completeness of your uploaded lab to Moodle. You will NOT be given any other chance to resubmit any missing or inaccurate submissions after the deadline. It is your responsibility and not ours, to make sure that the submissions are 100% correct.
- **You *might* be asked to demo some phases or all the phases of your lab in order to get the grade.** This is in order to ensure that you have done the work and not someone else. Upon demos, if we discover that you did not understand what you have submitted, you will be penalized severely (up to 60%). As we always say, there is no pedagogical benefit in writing answers that you do not understand. Doing so is usually the work of an AI chatbot like chatGPT or Gemini or answers copied from other students. We want to genuinely put the effort to learn what is covered in the lab.
- Please refer to the student code of conduct, to all AUB pertinent policies and to the syllabus for further penalties on academic offences.
- **NB**: This is an advanced Ethical hacking course which mean some questions in the labs and other assessment components will require some independent research on your own to find the answers. You will find also questions on topics explained in the lecturers. Please pay attention to plagiarism, any source that you consult, has to be cited adequately.

Deliverable of this phase:

Submit an MS Word file containing "clear" written commands and snapshots of the output. Include as much detail as possible. Name your MS Word file as firstname_lastname_ID

Lab 1 – Phase 2 – batch script

Exercise 1:

Create an interactive Menu system in a Batch script. The menu should provide the user with different options, and the script should perform the corresponding tasks based on the user's selection from menus and submenus. Please consult TutorialPoints guide on how to write Batch script:
https://www.tutorialspoint.com/batch_script/index.htm

Be creative, we will give you the freedom to designed as you want but you have include the following menus:

1. View System Information

Display information about the system, such as the operating system version, available memory, and processor details. Hint: systeminfo, ver, and other commands

2. File Operations

Perform file-related operations, including listing files in a directory, copying/moving files, and displaying file information.

3. Network Tools

Run network tools to check connectivity, traceroute to trace the route to a destination, and nslookup to query DNS information.

4. Process Management

Allow the user to view running processes, terminate a process, or start a new process.

5. Data Analysis

Create a simple data analysis tool that reads data from a file, performs basic calculations or manipulations, and displays the results.

6. Exit

Exit the script.

Ensure that the menu is user-friendly, providing clear instructions and feedback. Implement error handling to gracefully handle user input and unexpected issues.

Feel free to add additional features or functionalities to make the menu more robust and interesting. Test the script thoroughly to ensure its reliability and correctness.

Sample output:

Choose from Menu

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1 – System information

2- File operations

3- Network Tools

4- Process Management

5- Data Analysis

6- Exit

Submenus in System Information:

- Display detailed configuration information about the computer and its operating system.
- Get basic information about the computer caption, codeset, buildnumber
- Get information about the processor
- Get information about the installed memory
- Get information about the disk drives
- Display the host name portion of the full computer name
- Display TCP/IP network configuration information.
- Display the current date
- Display the current time:

Submenus in File Operations:

- Display or change file attributes.
- Display the name of or changes the current directory.
- Copy one or more files to another location.
- Delete one or more files.
- Display a list of files and subdirectories in a directory.
- Delete one or more files.
- Create a directory.
- Move one or more files from one directory to another directory.
- Remove a directory.
- Rename a file.
- Save the current directory then changes it.
- Remove a directory.
- Replace a file.
- Graphically display the directory structure of a drive or path.
- Copies files and directory trees.

Submenus for network tools:

1 View the current password & logon restrictions for the computer.

2 Display your current server or workgroup settings.

3 Add or remove a computer attached to the windows domain controller.

4 View the details of a particular user account.

5 Stop and start a particular service.

6 Display network statistics of the workstation or server.

7 Connect or disconnect your computer from a shared resource or displays information about your connections.

Submenus for process management:

- View the List of Running Processes

- Kill a Particular Process
- Start a New Process

Submenus for data analysis:

- Search for a string within a file.
- Sort the contents of a text file.
- Search for a specific string in a text file.
- Compare two files and display the differences.
- Display the contents of a text file.
- Display message "Hello, World!"