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|  | | **American International University- Bangladesh (AIUB)** | | |
| **Course Name:** | Operating System | | **Course Code:** | CSC 3214 |
| **Semester:** | Fall 2024-25 | | **Submission date:** | 11/24/2024 |
| **Item:** | Mid All Command List | | | |
| **Section** | I | | | |

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| **No** | **Name** | **ID** |
| 1 | A.B.M Mahmudul Hasan | 22-47108-1 |
| 2 | MD. Arafat Alam Leon | 22-47118-1 |
| 3 | MD. Mehedi Hasan Polas | 22-46566-1 |
| 4 | Tridib Sarkar | 22-46444-1 |

**Linux Commands Table**

**Group Information**

## Table 1: LAB-1

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| **Command** | **Explanation** | **Example** |
| cd | Displays the current directory path. | pwd |
| uname -a | Displays complete operating system information. | uname -a |
| mkdir <dir\_name> | Creates a new directory with the specified name. | mkdir my\_directory |
| cd <dir\_name> | Navigates to the specified directory. | cd my\_directory |
| ls | Lists files in the directory. | ls |
| ls -a | Lists all files, including hidden ones . | ls -a |
| touch <file\_name> | Creates a new, empty file with the specified name. | touch myfile.txt |
| echo "content" > <file\_name> | Adds content to a file, overwriting any existing content. | echo "Hello World" > myfile.txt |
| echo "content" >> <file\_name> | Appends content to a file without overwriting existing content. | echo "More content" >> myfile.txt |
| cat <file\_name> | Displays the content of a file. | cat myfile.txt |
| touch file1 file2 file3 | Creates multiple new files. | touch file1.txt file2.txt file3.txt |
| ls \*.ext | Lists files with a specific extension. | ls \*.txt |
| mkdir -p dir1/dir2/dir3 | Creates a nested directory structure. | mkdir -p parent/child/grandchild |
| cd .. | Moves to the parent directory. | cd .. |
| uname -r | Displays system kernel version information. | uname -r |
| uname -m | Displays system architecture. | uname -m |
| touch .<file\_name> | Creates a hidden file (file starting with a dot). | touch .hiddenfile |
| command > <file\_name> | Redirects the output of a command to a new file. | ls > filelist.txt |
| command >> <file\_name> | Appends the output of a command to an existing file. | uname -a >> systemlog.txt |

## Table 2: LAB-2

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| **Command** | **Explanation** | **Example** |
| touch file1.txt | Creates an empty file named `file1.txt`. | touch file1.txt |
| mkdir mydir | Creates a new directory named `mydir`. | mkdir mydir |
| echo "Hello, World!" > output.txt | Writes 'Hello, World!' into a new file `output.txt` using redirection. | echo "Hello, World!" > output.txt |
| echo "Appending a new line." >> output.txt | Appends text to the existing `output.txt` file. | echo "Appending a new line." >> output.txt |
| cat output.txt | Displays the contents of the file `output.txt`. | cat output.txt |
| pwd | Prints the current working directory path. | pwd |
| echo "This is file2 content." > file2.txt | Writes content to a file `file2.txt`. | echo "This is file2 content." > file2.txt |
| cat output.txt file2.txt > combined.txt | Combines the contents of `output.txt` and `file2.txt` into `combined.txt`. | cat output.txt file2.txt > combined.txt |
| less example.txt | Views the contents of `example.txt` one screen at a time. | less example.txt |
| cat file2.txt >> output.txt | Appends the contents of `file2.txt` to `output.txt`. | cat file2.txt >> output.txt |
| nl jtp.txt | Displays `jtp.txt` with line numbers. | nl jtp.txt |
| touch .hiddenfile | Creates a hidden file named `.hiddenfile`. | touch .hiddenfile |
| sort output.txt | Displays the sorted contents of `output.txt`. | sort output.txt |
| cp file1.txt file1\_backup.txt | Copies `file1.txt` to `file1\_backup.txt`. | cp file1.txt file1\_backup.txt |
| cp output.txt file2.txt mydir | Copies `output.txt` and `file2.txt` into the `mydir` directory. | cp output.txt file2.txt mydir |
| mv file2.txt mydir/ | Moves `file2.txt` to the `mydir` directory. | mv file2.txt mydir/ |
| rm file1\_backup.txt | Deletes the file `file1\_backup.txt`. | rm file1\_backup.txt |

| **Serial No.** | **Command** | **Explanation** | **Example** |
| --- | --- | --- | --- |
| 1 | pwd | Displays the current working directory. | pwd |
| 2 | reset | Resets the terminal screen to default settings. | reset |
| 3 | mkdir dir1 | Creates a new directory named dir1. | mkdir dir1 |
| 4 | cd dir1 | Changes the current directory to dir1. | cd dir1 |
| 5 | cd | Changes to the home directory. | cd |
| 6 | mkdir dir2 | Creates a new directory named dir2. | mkdir dir2 |
| 7 | uname -a | Displays system information, including kernel version and architecture. | uname -a |
| 8 | touch ab.txt | Creates a new empty file named ab.txt. | touch ab.txt |
| 9 | echo "text" > file | Writes "text" to file, overwriting any existing content. | echo "hello linux" > ab.txt |
| 10 | echo "text" >> file | Appends "text" to file. | echo "hello append" >> ab.txt |
| 11 | cat file | Displays the content of file. | cat ab.txt |
| 12 | ls \*.txt | Lists all .txt files in the current directory. | ls \*.txt |
| 13 | mkdir -p path | Creates nested directories specified by path. | mkdir -p ab/bc/cd/de |
| 14 | mv source dest | Moves or renames a file or directory. | mv dir1 dir2 |
| 15 | ls -a | Lists all files, including hidden ones (starting with .). | ls -a |
| 16 | ls -la | Lists all files with detailed information, including permissions, size, and modification date. | ls -la |
| 17 | touch .hidden | Creates a hidden file named .hidden. | touch .hidden |
| 18 | ls -a > file | Saves the list of all files, including hidden ones, to file. | ls -a > output.txt |
| 19 | uname -m | Displays the machine hardware name (architecture). | uname -m |
| 20 | uname -r | Displays the kernel version. | uname -r |
| 21 | ls -R | Lists files in the current directory and all subdirectories recursively. | ls -R |
| 22 | cp source dest | Copies a file from source to dest. | cp ab.txt dir2 |
| 23 | cp -r source dest | Copies directories and their contents recursively. | cp -r dir2/\* newdir |
| 24 | mkdir dir5 | Creates a new directory named dir5. | mkdir dir5 |
| 25 | rm -r dir | Deletes a directory and its contents recursively. | rm -r dir5 |
| 26 | ls -d \*/ | Lists directories only in the current directory. | ls -d \*/ |
| 27 | rmdir dir | Removes an empty directory. | rmdir dir5 |
| 28 | clear | Clears the terminal screen. | clear |

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| 29 | | ls -a | | Lists all files and directories in the current directory, including hidden ones. | ls -a | |
| 30 | | touch new.txt | | Creates an empty file named new.txt. | touch new.txt | |
| 31 | | echo hello > new.txt | | Writes the text "hello" into the file new.txt, overwriting existing content. | echo hello > new.txt | |
| 32 | | echo hello2 >> new.txt | | Appends the text "hello2" to new.txt without overwriting the existing content. | echo hello2 >> new.txt | |
| 33 | | cat new.txt | | Displays the content of the file new.txt on the terminal. | cat new.txt | |
| 34 | | mkdir -p a/b/c/d | | Creates nested directories a/b/c/d in one command; -p ensures parent directories exist. | mkdir -p a/b/c/d | |
| 35 | | mv dir2/\* dir0 | | Moves all contents from dir2 to dir0. | mv dir2/\* dir0 | |
| 36 | | cp file1 file2 | | Copies file1 to file2, creating a duplicate of file1. | cp file1.txt file2.txt | |
| 37 | | rm file.txt | | Deletes the file file.txt. | rm file.txt | |
| 38 | | rmdir dir1 | | Removes the directory dir1 if it is empty. | rmdir emptydir | |
| 39 | | wc -l file.txt | | Counts the number of lines in file.txt. | wc -l file.txt | |
| 40 | | cat > file.txt | | Allows you to input text into file.txt. Press Ctrl+D to save and exit. | cat > file.txt | |
| 41 | | sort file.txt | | Sorts the lines in file.txt alphabetically and displays them. | sort file.txt | |
| 42 | | grep "pattern" file | | Searches for the specified pattern in the given file and displays matching lines. | grep "error" log.txt | |
| 43 | | chmod 777 file.txt | | Changes the permissions of file.txt to read, write, and execute for all users. | chmod 777 script.sh | |
| 44 | | head -n 5 file.txt | | Displays the first 5 lines of file.txt. | head -n 5 data.txt | |
| 45 | | tail -n 5 file.txt | | Displays the last 5 lines of file.txt. | tail -n 5 log.txt | |
| 46 | | cut -d, -f2 file.txt | | Splits lines of file.txt by the delimiter , and displays the second field. | cut -d, -f2 data.csv | |
| 47 | | paste file1 file2 | | Merges the content of file1 and file2 line by line. | paste file1.txt file2.txt | |
| 48 | | echo "text" >> file | | Appends "text" to the specified file. | echo "hello world" >> notes.txt | |
| 49 | | sort -u file.txt | | Sorts the lines in file.txt and removes duplicates. | sort -u names.txt | |
| 50 | | nl file.txt | | Numbers the lines of file.txt and displays them. | nl file.txt | |
| 29 | | ls -a | | Lists all files and directories in the current directory, including hidden ones. | ls -a | |
| 30 | | touch new.txt | | Creates an empty file named new.txt. | touch new.txt | |
| 31 | | echo hello > new.txt | | Writes the text "hello" into the file new.txt, overwriting existing content. | echo hello > new.txt | |
| 32 | | echo hello2 >> new.txt | | Appends the text "hello2" to new.txt without overwriting the existing content. | echo hello2 >> new.txt | |
| 33 | | cat new.txt | | Displays the content of the file new.txt on the terminal. | cat new.txt | |
| 34 | | mkdir -p a/b/c/d | | Creates nested directories a/b/c/d in one command; -p ensures parent directories exist. | mkdir -p a/b/c/d | |
| 35 | | mv dir2/\* dir0 | | Moves all contents from dir2 to dir0. | mv dir2/\* dir0 | |
| 36 | | cp file1 file2 | | Copies file1 to file2, creating a duplicate of file1. | cp file1.txt file2.txt | |
| 37 | | rm file.txt | | Deletes the file file.txt. | rm file.txt | |
| 38 | | rmdir dir1 | | Removes the directory dir1 if it is empty. | rmdir emptydir | |
| 39 | | wc -l file.txt | | Counts the number of lines in file.txt. | wc -l file.txt | |
| 40 | | cat > file.txt | | Allows you to input text into file.txt. Press Ctrl+D to save and exit. | cat > file.txt | |
| 41 | | sort file.txt | | Sorts the lines in file.txt alphabetically and displays them. | sort file.txt | |
| 42 | | grep "pattern" file | | Searches for the specified pattern in the given file and displays matching lines. | grep "error" log.txt | |
| 43 | | chmod 777 file.txt | | Changes the permissions of file.txt to read, write, and execute for all users. | chmod 777 script.sh | |
| 44 | | head -n 5 file.txt | | Displays the first 5 lines of file.txt. | head -n 5 data.txt | |
| 45 | | tail -n 5 file.txt | | Displays the last 5 lines of file.txt. | tail -n 5 log.txt | |
| 46 | | cut -d, -f2 file.txt | | Splits lines of file.txt by the delimiter , and displays the second field. | cut -d, -f2 data.csv | |
| 47 | | paste file1 file2 | | Merges the content of file1 and file2 line by line. | paste file1.txt file2.txt | |
| 48 | | echo "text" >> file | | Appends "text" to the specified file. | echo "hello world" >> notes.txt | |
| 49 | | sort -u file.txt | | Sorts the lines in file.txt and removes duplicates. | sort -u names.txt | |
| 50 | | nl file.txt | | Numbers the lines of file.txt and displays them. | nl file.txt | |
| 51 | | grep -i keyword filename | | If we want to search a word like AIUB and ignore case distinctions than run the command | grep -i AIUB file1.txt | |
| 52 | | grep -v keyword file | | This command displays only those lines without the word AIUB from the file1.txt | grep -v AIUB file1.txt | |
| 53 | Grep -o pattern file1 | wc -l | | Instead of displaying the entire line, the **-o** option prints only the pattern occurrences, which the wc command count. | | | grep -o apple file1.txt |
| 54 | grep -i keyword file | | If we want to search for a word like AIUB and ignore case distinctions. | | | grep -i AIUB file1.txt |