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# 1 Objectives

- be familiar with basic DOS commands & CLI
- learn to execute custom scripts with batch files

## 2 Introduction

Microsoft Disk Operating System (MS-DOS) was a popular Command Line Interface(CLI) based operating system in 1980s. Built in commands can be used to create custom scripts & can be saved as `.bat` batch files. These commands are still available in modern versions of Windows & can be run in applications that provide command line interface, like Command Prompt & Powershell.

### 2.1 Some basic commands

- `cd directory_name`  
Change directory if specified, else display current directory.
- `cls` Clear screen i.e. remove all text except for shell prompt.
- `dir` Display list of contents of current directory.
- `help command_name`  
Display list of commands or help about a command.
- `copy [option] source [option] destination`  
Copies specified file(s) to another location.
- `xcopy source destination`  
Copies files and directories, including subdirectories.
- `del file_name`  
Deletes specified file(s)
- `echo` Prints given text to standard out. Useful for printing info from our scripts or writing data to files. By default, all commands used in a batch script are echoed to standard out. `@echo off` can be placed at the start of scripts so that it only echoes when we use the `echo` command.
- `set var_name = value`  
Sets variable value. Variables can be printed by wrapping them in `%`.  
`echo %var_name%`

## 3 Lab Work

### 3.1 Create a batch file which include different commands and execute it.

```
@echo off
set /a sum=1+1
echo %sum%
set /a mul=7*9
echo %mul%
```

### 3.2 Create a batch file which may display

- your name, address,
- your ip address,
- your routing information
- and reboot your system by giving message , “your system is down”

```
@echo off
echo name: sujal
echo address: kathmandu
echo ip address:
ipconfig | findstr /i "IPv4"
echo your routing info:
route print
shutdown /r /t 60 /c "your system is down" /f /d p:4:1
```

### 3.3 create a batch file that repeatedly ask for command and execute it.

```
@echo off
:cmd
set /p "cmd=C:\Enter Command: "
call %cmd%
goto cmd
```

## 4 Conclusion

Thus, we learned how terminal commands were used to interact with computers back in the day, and how they are still useful. We became familiar with navigating through the file system in the command line. We also created some basic scripts using built-in commands.