TRAINING DAY 20 REPORT:

- ## Introduction to Batch File

  ### What is a Batch File?

  A **Batch File** is a text file with a .bat or .cmd extension that contains a list of **commands** to be executed in sequence by the **Windows Command Prompt (cmd.exe)**.

  ### Why Use Batch Files?

  - Automate routine tasks

  - Save time executing multiple commands

  - Simplify administrative work

  ### Example:

  ```
  @echo off
  echo Hello, welcome to batch programming!
  pause
  ```

- ## Batch File Program

  This section includes actual **examples of batch programs**.

  ### Example 1: Open Notepad

  ```
  @echo off
  start notepad.exe
  ```

  ### Example 2: Create Folder and File

  ```
  @echo off
  mkdir MyFolder
  cd MyFolder
  echo Hello World > myfile.txt
  ```

  These demonstrate how to:

  - Start applications

  - Create folders/files

- Use redirection (>) to write to files

• Start in Batch File Programming

This section would guide beginners to start **writing and running** batch scripts.

Getting Started:

1. Open Notepad

2. Write commands like:

```
@echo off
echo This is my first batch script.
pause
```

3. Save as myfirst.bat

4. Double-click to run

Basic Concepts:

- @echo off: Hides command being executed

- pause: Waits for user input

- rem: Adds comments

- %variable%: Access environment or user-defined variables

• Batch Script - Folder Bomber

This is a destructive script (for educational use only).

What is a Folder Bomber?

It's a script that **creates a large number of folders** rapidly, possibly crashing or freezing the system.

Example:

```
@echo off:loop
md %random%
goto loop
```

- md: Command to make directories

- %random%: Generates random folder names

- goto loop: Infinite loop

- # More About Batch File Programming

  This dives deeper into:

  Conditional statements: IF, IF EXIST

  Loops: FOR, GOTO

  User Input: SET /P

  Example – Conditional Script:

  ```
  @echo off
  set /p name=Enter your name:
  if "%name%"=="Admin" (
  echo Welcome Admin
  ) else (
  echo Access Denied
  )
  ```


- # How to Collect System Information Using Batch File Programming

  This script uses built-in Windows commands to gather system info.

  Example:

  ```
  @echo off
  systeminfo > sysinfo.txt
  ipconfig /all >> sysinfo.txt
  netstat -an >> sysinfo.txt
  echo System information collected in sysinfo.txt
  pause
  ```

- systeminfo: Gets OS details

- ipconfig /all: Network info

- netstat -an: Active network connections

    Used in system audits and cybersecurity footprinting.

- ## How to Create a Matrix Using Batch File Programming

    This script creates a **Matrix-style green code rain effect** in the console window.

    Example:

    ```
    @echo off
    color 0a
    :top
    echo %random%%random%%random%%random%%random%%random%
    %random%
    goto top
    ```

    color 0a: Black background and green text

    %random%: Generates endless numbers

    goto top: Loop to simulate falling text

    Visual effect only, popular in hacking demos.