Lab Assignment2

1. **Introduction of Internal and External Commands:**
   - Internal commands are built-in to the shell and don't require external programs. Examples include `cd` and `echo`.
   - External commands are separate programs that can be executed from the shell. Examples include `ls` and `grep`.
2. **Feeding Output of One Command to Another Command by Pipelining:**
   - The `|` (pipe) symbol is used to send the output of one command as input to another command.
   - This allows you to chain commands together to perform complex tasks.
3. **expr and Locating Command:**
   - `expr` is a command for evaluating expressions in shell scripting.
   - The `locate` command is used to quickly search for files in a pre-built database.
4. **echo Command:**
   - `echo` is used to display text or variables on the terminal.
   - It's often used for printing messages in shell scripts.
5. **Using . and ..:**
   - `.` refers to the current directory, while `..` refers to the parent directory.
   - These are useful shortcuts for navigating the file system.
6. **Ways for Signing Off from Linux:**
   - Common ways to sign off include using the `exit` command or pressing `Ctrl+D` at the command prompt.
7. **Ping, Man, and Help Command:**
   - `ping` is used to test network connectivity by sending ICMP echo requests.

- `man` displays the manual pages for commands and programs.
- `help` provides built-in help for shell commands.

8. **Combining Commands:**
   - You can combine commands using operators like `;` (semi-colon) to run them sequentially, or `&&` (logical AND) to run them only if the previous command succeeds.
9. **File Permissions and Changing Access Rights (chmod):**
   - File permissions control who can read, write, or execute a file.
   - `chmod` is used to change file permissions in Linux.
10. **Vi Editor and Its Basics:**
    - Vi is a text editor with modes for inserting, deleting, and navigating text.
    - To enter text, press `i` for insert mode, type your text, and press `Esc` to exit insert mode.
    - To save changes, type `:w` and press Enter, and to quit, type `:q`.

Self-Study Topics:

1. **grep, sort, ps Command:**
   - `grep` is used for searching text using patterns.
   - `sort` is used to sort lines in text files.
   - `ps` shows information about running processes.
2. **Study Basics of Shell Programming:**
   - Shell programming involves writing scripts to automate tasks using shell commands and control structures.
   - Topics may include variables, conditionals, loops, and functions.