## File Viewing and Editing

1. **grep**
   - o **What**: Searches for patterns in a file or output.
   - o **Example**: `grep "error" log.txt` (Find lines containing "error").
2. **pipe (|)**
   - o **What**: Passes the output of one command as input to another.
   - o **Example**: `ls | grep ".txt"` (Lists .txt files).
3. **ls**
   - o **What**: Lists files and directories.
   - o **Examples**:
     - ▪ `ls` (basic list),
     - ▪ `ls -l` (detailed list),
     - ▪ `ls -a` (includes hidden files).
4. **cat**
   - o **What**: Displays, creates, or concatenates files.
   - o **Examples**:
     - ▪ `cat file.txt` (View file content),
     - ▪ `cat > file.txt` (Create and write to a file),
     - ▪ `cat file1.txt file2.txt > file3.txt` (Merge files into `file3.txt`).

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## Copying and Moving Files

1. **cp**
   - o **What**: Copies files and directories.
   - o **Options**:
     - ▪ `-i`: Interactive (prompt before overwriting),
     - ▪ `-v`: Verbose (show progress),
     - ▪ `-u`: Update only if source is newer.
   - o **Examples**:
     - ▪ `cp file1.txt file2.txt` (Copy `file1.txt` to `file2.txt`),
     - ▪ `cp -r dir1 dir2` (Copy directory `dir1` to `dir2`).
2. **mv**
   - o **What**: Moves or renames files and directories.
   - o **Example**: `mv file1.txt newname.txt` (Rename file).

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## Finding Files

1. **find**
   - o **What**: Searches for files and directories.
   - o **Options**:
     - ▪ `-name`: Case-sensitive search,
     - ▪ `-iname`: Case-insensitive search,
     - ▪ `-type f`: Search only for files.

- **Examples**:
  - `find . -name "file1.txt"` (Find `file1.txt` in the current directory),
  - `find . -name "*.txt" -exec grep "ERROR" {} \;` (Find .txt files with "ERROR").

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## Sorting

1. `sort`
   - **What**: Sorts the content of a file.
   - **Options**:
     - `-u`: Remove duplicates,
     - `-r`: Reverse order,
     - `-k`: Sort by specific column.
   - **Examples**:
     - `sort file.txt`,
     - `sort -k 2 file.txt` (Sort by the second column).

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## Disk and Directory Commands

1. `df -h`
   - **What**: Shows disk space usage in human-readable format.
   - **Example**: `df -h | sort -k 4` (Sort by size).
2. `mkdir`
   - **What**: Creates a new directory.
   - **Example**: `mkdir newfolder`.
3. `rm`
   - **What**: Deletes files or directories.
   - **Options**:
     - `-i`: Interactive prompt before deleting,
     - `-d`: Delete an empty directory.
   - **Example**:
     - `rm file.txt`,
     - `rm -r folder/` (Delete directory).

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## Vi Editor Commands

1. **Navigation**:
   - `$`: Move to the end of the line,
   - `:1`: Go to line 1,
   - `/word`: Search for a word, press `n` for next, `N` for previous.
2. **Settings**:
   - `:set number`: Show line numbers,

- o `:set nonumber`: Remove line numbers,
- o `:set paste`: Avoid formatting issues when pasting text.

3. **Split Windows**:
   - o `:split filename` (Horizontal split),
   - o `:vsplit filename` (Vertical split),
   - o Use `Ctrl + w` to switch between splits.

4. **Find and Replace**:
   - o `:%s/oldword/newword/g` (Replace globally in the file).