Command Line Basics 1/2

Linux Essentials
Session-2

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WAY TO REINVENT YOURSELF

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Essential to OS Management

- **File management**
  - **How are files structured?**
  - **Copy, move, delete, create files**
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  - **Directory contents**
  - **Navigating directories**
  - **Searching in files, directories**
  - **File permissions**
  - **Editing files**
- **User management**
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  - **Create, modify passwords**
- **Performance management**
  - **System performance**
  - **Who is logged in**

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0 What is Essential to Managing an OS?

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DevOps Engineers are not System Administrators.
Why is this important?

What is SHELL?

Shell is a program that receives the user's commands and gives them to the operating system to process and displays the output.

Bash (**B**ourne **A**gain **SH**ell) is an enhanced version of Steve Bourne's first Unix shell application, and serves as the shell program on most Linux systems.
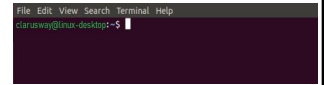
User Request

↓

SHELL   Application

↓   ↓

LINUX KERNEL

⇓   ⇑   ⇓

Computer Hardware
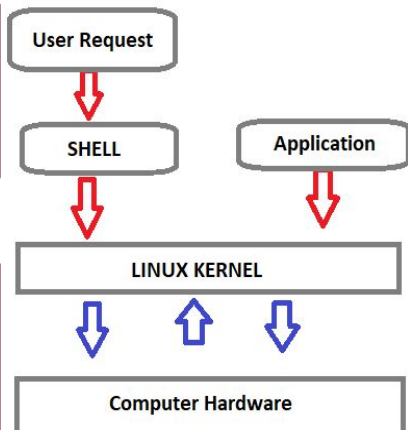
What is SHELL?

The standard Linux shell is both a command-line interpreter and a programming language.

The command prompt for Linux generally shows the current **user**, the current **host**, and the appropriate **directory**.

At the end of the prompt list, the $(dollar sign) signifies the current user being unprivileged, and the device is ready to receive feedback.

The input is sent for parsing and execution to the interpreter.

```
>_
```

```
File  Edit  View  Search  Terminal  Help
clarusway@linux-desktop:~$ 
```

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1 Files and Directories

Files and Directories
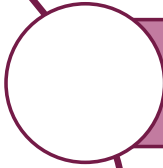
The file system hierarchy standard (FHS) defines the structure of the file systems on Linux.
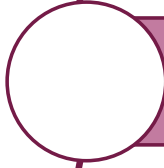
In the FHS, all files and directories appear under the root directory /, even if they are stored on different physical or virtual devices.
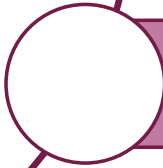
Most of these directories exist in all UNIX, however, they are not considered authoritative for platforms other than Linux.

File System Hierarchy Standard (FHS)
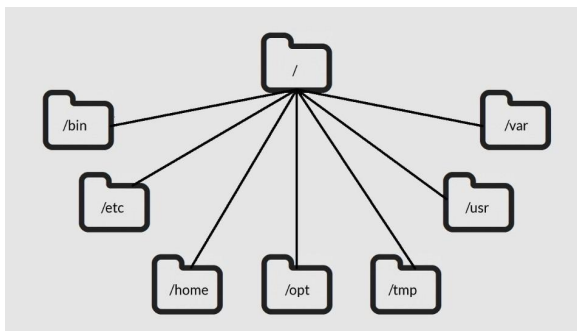
2 Basic SHELL Commands
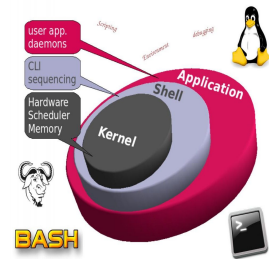
Basic Shell Commands

pwd   show current path


```
user@clarusway-linux: ~
File  Edit  View  Search  Terminal  Help
user@clarusway-linux:~$ pwd
/home/user
user@clarusway-linux:~$
```

Basic Shell Commands

ls   lists directory contents
ls -l lists directory contents with details

Basic Shell Commands

cd [dir] change (current) directory
cd ..   change current directory to one level up
cd /   change current directory to the root directory
cd ~   change current directory to the home directory

Basic Shell Commands

mkdir [dir]   create a new directory

Basic Shell Commands

rmdir [dir]   delete an empty directory

Basic Shell Commands

touch   create a file

Basic Shell Commands

rm   delete a file

Basic Shell Commands

cp copy a file to another location

Basic Shell Commands

mv move a file to another location

Basic Shell Commands

echo   print message to screen
echo > [file] print message into a file

Basic Shell Commands

cat show file contents

Multiple File/Directory Operations

? used for a single character
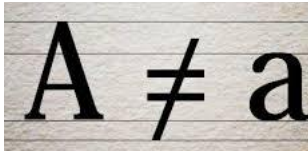***** used for multiple characters.

Basic SHELL Commands

Case Sensitivity

Most of the common Linux file systems are case sensitive; this is something to keep in mind when creating files or directories and moving through directories.

A ≠ a

Lower-case and upper-case letters have different ASCII representation.

touch newfile
touch Newfile
Will create two different files.

Task

📁 **clarusway**

📁 **lessons**

📄 **linux.txt**

"I love linux"
"Sometimes"

📄 **html.txt**

"I can create a website"

📁 **materials**

📄 **lms.txt**

"pre-class"
"material"

📄 **try-it.txt**

"post-class"
"material"

Solution

```
136  ls
137  mkdir clarusway
138  cd clarusway
139  mkdir lessons
140  cd lessons
141  touch linux.txt
142  echo "I love linux" > linux.txt
143  touch html.txt
144  echo "I can create a web site" > html.txt
145  cd ..
146  mkdir materials
147  cd materials
148  mkdir pre-class
149  cd pre-class
150  touch lms.txt
151  cd ..
152  mkdir post-class
153  cd post-class
154  toouch try-it.txt
```

THANKS !

Any questions?