

Department of Information Technology, Faculty of Computing

Unix directory structure

- 1) Log in to the system and type **pwd** to *print working directory*. Note down the *absolute path*, i.e. Pathname starting from /, i.e. root directory.

Absolute path name:

- 2) Now use **cd** command to change your directory to /. Type **ls -l** and observe the different fields that can be seen in the output.

How can you recognize file/directory by looking at this output? Do you have the read, write, or execute permission to these files/directories? What do these fields mean?

- 3) Visit following directories.

/bin, /home, /dev, /etc, /lib

Type **ls -l** under each directory. Can you interpret the output of **ls -l** command? Check the very first letter of the each line when you type **ls -l** under /dev directory.

- 4) Use following methods to go back to your home directory.

cd

cd ~

cd \$HOME

Can you distinguish the difference among cd, cd ., cd .. commands?

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Create **cricketers.txt** file using **vi cricketers.txt** and enter the following names and countries. (Ignore typing mistakes; type as fast as you can)

Mathew Hayden Australia

Muttaiyah Muralidaran Sri Lanka

Grant Flower South Africa

Mahela Jayawardhane Sri Lanka

Kapil Dev India

Mark Waugh Australia

Sachin Tendulkar India

Tim Flower South Africa

Rahul Dravid India

Chaminda Vas Sri Lanka

Saheed Alahi Pakistan

Andy Flower South Africa

Tom Robinson England

Save and quit the file.

Command Redirection and Pipe Mechanism

1) Run the command **head -5 cricketers.txt > headtail**. Run **cat < headtail** to see the contents of **headtail**. Run the **tail -5 cricketers.txt > headtail** and see the contents of **headtail**. Is it the same **headtail** that you have observed early? Yes/No

2) Run the command sequence,
head -5 cricketers.txt > headtail
cat < headtail
tail -5 cricketers.txt >> headtail
cat < headtail

What does this **>>** do ?
.....

3) Run the command **cat < cricketers.txt | cut -f3,4 -d “ “** and observe the output.

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4) Run the command **cat < cricketers.txt | cut -f3,4 -d “ “ | sort** and observe the output. Now run this command again and write the output to **countries.txt** file.

5) By observing the previous command write the names of the cricket players (after sorting them) to the file **names.txt**.

6) Run **cat < cricketers.txt | grep -n “Sri Lanka”** and see the output. Repeat the command without **-n** and see the difference.

What is the purpose of argument **-n**?

.....

7) Write the names of Sri Lankan cricketers to a file **slcricnames**. Write the names of Australian cricketers to **auscricnames** file.

8) Add the following two names to the locations given with them. (Hints: In Command Mode, ‘o’ and ‘O’ are used to open a line above and below a particular line)

Steve Waugh Australia below the line consisting **Grant Flower South Africa**

Imran Khan Pakistan below the line consisting **Sachin Tendulkar India**

9) Delete **Mark Waugh Australia** and paste it below the line consisting **Andy Flower South Africa** (Hints: In Command Mode, ‘dd’ and ‘p’ can be used for deleting a whole line and paste what you deleted last) Save and quit the file.

10) Open the file **cricketers.txt** and move the cursor so that it is on top of the character ‘i’ in the line **Tim Flower South Africa**. Make sure that you are in *Command Mode*, type ‘r’ and then the character ‘o’. Come back to *Command Mode*. Now repeat the same to change the name **Tom** to **Tim** at the last line.

11) In *Command Mode*, place the cursor on l in **Saheed Alahi Pakistan**. Type ‘cw’ and correct the word to **Answer** (by typing ‘nwer’).

12) Make a directory ‘**lab2**’ and move the file **cricketers.txt** to directory ‘**lab2**’. Now change your Directory to ‘**lab2**’