OS LAB ASSIGNMENT1

For each command mentioned above, give a brief description of what it does and how it can be used Command Description Syntax Sample Output Example: cat Displays the content of the file note1 $cat note1 Hello Java The screenshots should be pasted for sample output.

1) UNIX COMMANDS
   1. man: To display the manual page for a given command.

   Syntax: $man [OPTION]... [COMMAND NAME]...
   2. who: To display all the users who are currently using the system.

   Syntax: $who [options] [filename]
   3. whoami: Displays only your details.

   Syntax: whoami [OPTION]
   4. pwd: Shows current working directory.

   Syntax: pwd
   5. ls: Shows all the files in the current directory. ls can be used with several options.

   Syntax: ls
   6. cd: To change directory.

   Syntax: cd [directory]
   7. rm: Removes files.

   Syntax: rm [OPTION]... FILE...
   8. cp: Makes copies of files and directories.

   Syntax: cp [OPTION] Source Destination
   9. mv: Moves files to another directory.

   Syntax: mv [Option] source destination
   10. mkdir: Creates directory under the current working directory.

   Syntax: mkdir [options...] [directories ...]
   11. rmdir: Removes directory under the current working directory.

   Syntax : rmdir [-p] [-v | –verbose] [–ignore-fail-on-non-empty] directories …
   12. echo: Displays a text or message on the screen.

   Syntax: echo [option] [string]
   13. cat: Universal file viewer. Displays the content of a file.

   Syntax: $cat filename
   14. wc: Count lines, words and characters of a file.

   Syntax : wc [OPTION]... [FILE]...

2. Provide a short write-up (1 or 2 paragraphs) on the following:

History of Unix and Linux:

In 1969-1970, Kenneth Thompson, Dennis Ritchie, and others at AT&T Bell Labs began developing a small operating system on a little-used PDP-7. The operating system was soon christened Unix, a pun on an earlier operating system project called MULTICS. In 1972-1973 the system was rewritten in the programming language C, an unusual step that was visionary: due to this decision, Unix was the first widely-used operating system that could switch from and outlive its original hardware. Other innovations were added to Unix as well, in part due to synergies between Bell Labs and the academic community. In 1979, the ``seventh edition'' (V7) version of Unix was released, the grandfather of all extant Unix systems. After this point, the history of Unix becomes somewhat convoluted. The academic community, led by Berkeley, developed a variant called the Berkeley Software Distribution (BSD), while AT&T continued developing Unix under the names ``System III'' and later ``System V''. In the late 1980's through early 1990's the ``wars'' between these two major strains raged. After many years each variant adopted many of the key features of the other. Commercially, System V won the ``standards wars'' (getting most of its interfaces into the formal standards), and most hardware vendors switched to AT&T's System V. However, System V ended up incorporating many BSD innovations, so the resulting system was more a merger of the two branches. In 1991 Linus Torvalds began developing an operating system kernel, which he named ``Linux'' [Torvalds 1999]. This kernel could be combined with the FSF material and other components (in particular some of the BSD components and MIT's X-windows software) to produce a freely-modifiable and very useful operating system. This book will term the kernel itself the ``Linux kernel'' and an entire combination as ``Linux''. Note that many use the term ``GNU/Linux'' instead for this combination.

Kernel of an Operating System:

The kernel is the essential center of a computer operating system (OS). It is the core that provides basic services for all other parts of the OS. It is the main layer between the OS and hardware, and it helps with process and memory management, file systems, device control and networking.

Multi-Tasking OS:

A multitasking operating system (OS) is one that can work on more than one task at a time by switching between the tasks very rapidly. The tasks may all pertain to a single user or to multiple users. ... This allows the system to switch smoothly between tasks.

Multi-User OS:

A Multi-user operating system is a computer operating system which allows multiple users to access the single system with one operating system on it. ... Different users access the machine running the OS through networked terminals. The OS can handle requests from users by taking turns among connected users.