**COMP 206 – Assignment 1**

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Q1.1)

The following are the four main services offered by a typical contemporary operating system and their basic purposes:

1. I/O operation (input-output) helps the user to run programs in an efficient way and does not show redundant details of hardware. It simply allows the user to give inputs to produce the respective outputs in a program.
2. The operating system enables communication between processes and reduces the worry for the user to pass messages between these processes within a computer. For a network of computers, user-defined programs can be created to pass messages to processes on other computers.
3. The operating system also detects the errors by constantly monitoring the system, hence reducing the burden on the user by constantly keeping track of the malfunctioning parts of the system.
4. File System Manipulation provides the user with some easy-to-access tools such as copying and writing the output of a program into new files or taking input from some other files. The users don’t have to deal with the secondary storage management which makes it easier for them to successfully carry out tasks.

Q1.2)

The following are the platforms on which Linux/Unix can run:

1. OpenRISC
2. MIPS
3. SPARC
4. Xtensa
5. Microblaze
6. Blackfin

Q1.3)

The manifesto enlightens the Linux Documentation Project website’s free and high-quality knowledge of linux/GNU documentations. It also provides a platform to aggregate the issues surrounding this documentation to make it more reliable.

Q1.4)

Statistics:

* Number of Linux users worldwide- 67, 837, 950
* Number of Linux user countries- 225
* Top Linux user countries- United States, Germany, Italy

Q1.5)

1. **ls -la \*.exe**: lists all of files and folders in the current directory, and also shows hidden files, with the file extension .exe.
2. **lpr –Pwpr:** submits files for printing to a particular printer (defined by P; wpr for word processor)
3. **chmod g+rwx \*.\***: changes the permissions of groups to read, write, and execute all files in the current directory with any names and extensions.
4. **ls -l | pr | lpr**: list all files except for hidden files in long format, prepares the printing format(does not display on the screen), and then sends to the default system queue for offline printing