Expt.No. _____
Date 08/03/22
Page No. 1

Practical NO. 1

Aim

Aim : Introduction to operating system

Theory :

1. what is operating system

An operating system (OS) is an interface between computer user and computer hardware An operating system is software which perform all the basic tasks like file management, Memory management, process management, handling input and output, and controlling peripheral devices such as disk drives and printers.

2. functions of an operating system

- Memory Management
- Processor Management
- Device Management
- file management
- Security
- control over system performance
- Job accounting
- Error detcting aids,
- coordination between other software and user.

Expt.No.
Date
Page No. 2

3. Types of operating System

Some of the widely used operating system are follow:

1) Batch operating System

This type of operating system does not interact with the computer directly. There is an operator which takes similar jobs having same requirement and group them into batches. It is responsibility of operator to sort the jobs with similar needs.

(2) Time-Sharing operating System:

Each task has given sometime to execute, so that all the task work smoothly. Each user get time of CPU as they use single System. These system are also known as multitasking Systems. The task can be form single user or from 2 users also.

3) Distrubuted operating system :

These types of operating system is a recent advancement in the world of computer technology and are being widely accepted all over the world and, that too, with a great pace. various autonomous interconnected computer, communicate each other using a shared communication network. Independent System process and own memory unit and CPU. These are referred as loosely coupled system. These system processor differs in size and function. The major benifit of working with these types of operating system is that is always possible that one user can acess the files or software which are not actually present on his system but on some other system connected wtt with this network.

4) Network operating system

These system run on a server and provide the capability to manage data, users, group security, application, and others networking function. These types of operating system allows shared acess of files, printers, security, applications, and other networking function, over a small privale network.

One more important aspect of Network operating system is that all the user are well aware of the underlying configuration, of all others users within the network, their individual connection etc,

5) Realtime operating system

These type of OS serve the real-time systems. The time interval required to proces, and respond to input is very small. This Time interval is called response time.

Two types of Real time operating system which are follows

- Hard Real-Time systems: Three OS's are meant for the application where time constraint are very strict and even the shortest possible delay is not acceptable. These system are built for saving life like automatic parachutes of air bag which are required to be readily available in case of any accident.

Soft Real time systems :- The OS' are the for application where for time constraint is less strict.