Assignment No: 1

Title: Brief History of Mobile Operating Systems

The development of operating systems can be summarized as follows:

1. Because there were no operating systems on early computer systems, programmes had to manage all relevant hardware components directly.
   The original operating systems were rudimentary batch systems that required users to submit their work on punched cards or tape. All of the operations were divided into batches and piled on the main input device, which was a fast card reader or tape reader.

2. Automatic job sequencing was a critical feature for these systems. The CPU idle time, which affected CPU utilize, was an essential performance parameter for these systems. The turnaround time, which is the time between the submission of a job and the generation of output, was the most critical performance statistic from the user's perspective.

3. Batch systems with multiprogramming were the next sorts of operating systems to emerge. These systems could handle multiple programmes running in memory at the same time and required more advanced memory management. When a programme in these systems paused to wait for I/O, the operating system could quickly move from the currently executing programme to the next. The brief interval was referred to as context switch time. Multiprogramming, in general, increases CPU and device utilization.

4. 4. The next significant generation of systems produced was time-sharing operating systems. The capacity to deliver interactive computing to people connected to the system was the most major advantage of these systems. The main strategy used on these systems was for the user programmes to share the processor's time uniformly. The operating system gave CPU service to a programme for a short and fixed period of time before switching to the next programme.

5. More advanced techniques were used to create variants of multiprogramming operating systems. These included greater hardware support for interrupt mechanisms and the ability to build better priority-based scheduling approaches. Real-time operating systems have been created.
6. Advances in hardware and memory management techniques enabled the development of newer and more powerful operating systems with features such as paging and virtual memory, multi-level cache, and others.

Most of the development of modern operating systems has focused on networking, distribution, reliability, protection, and security. Several widely used operating systems are available today:

- Microsoft Windows, a family of systems that includes 98, Me, CE, 2000, XP, Vista, Windows 7, and others
- Linux (Linus Torvalds, FSF GNU)
- OSF-1 (OSF, DEC)
- Solaris (Sun Microsystems)
- IRIX (Silicon Graphics)
- OS2 (IBM)
- OS/390 (IBM)
- VMS (Dec/Compaq/HP)

A brief history of mobile operating systems:

1. ***Palm OS(1996-2009):-*** Developed by Palm, Inc., Palm OS was one of the earliest mobile operating systems. It gained popularity in the late 1990s and early 2000s, especially with personal digital assistants (PDAs) like the Palm Pilot. It featured a stylus-driven interface and supported basic applications.
2. ***Windows Mobile(2000-2010):-***Developed by Microsoft, Windows Mobile was used in various smartphones and PDAs. It offered a wide range of applications, but its interface was considered less user-friendly compared to later systems.
3. ***Symbian OS (1998-2013):*** Developed by a consortium of companies, including Nokia, Symbian was one of the most widely used mobile OS in the early 2000s. It powered many Nokia smartphones and featured customizable user interfaces.
4. ***iOS (2007-present):-*** Developed by Apple, iOS revolutionized the smartphone industry with the launch of the iPhone in 2007. It introduced the concept of the App Store and offered a highly intuitive and user-friendly interface.
5. ***Android OS (2008-present):*** Developed by Google, Android is the most widely used mobile operating system today. It's an open-source platform that allows various manufacturers to create their own devices running on Android. Android has evolved through various versions, offering improved performance, features, and app compatibility.
6. ***Windows Phone (2010-2017):*** A successor to Windows Mobile, Windows Phone introduced a new, tile-based interface. While it received praise for its unique design, it struggled to gain significant market share and was eventually phased out.