

### 1940s-1950s: Early Beginnings



- Computers operated without operating systems (OS).  
Programs were manually loaded and run, one at a time

### • 1960s: Multiprogramming and Timesharing

- Introduction of multiprogramming to utilize CPU efficiently.



### • 1970s: Unix and Personal Computers

- Unix (1971) revolutionized OS design with simplicity, portability, ← and multitasking.



### • 1980s: GUI and Networking

- Graphical User Interfaces (GUIs) gained popularity with systems like Apple Macintosh (1984) and Microsoft Windows (1985).



### • 1990s: Linux and Advanced GUIs

- Linux (1991) introduced open-source development.



### Heading

- 2000s-Present: Mobility and Cloud
  - Mobile OSs like iOS (2007) and Android (2008) dominate.



### 8. AI Integration – (2010s to ongoing)

With the growth of time, Artificial intelligence came into picture



### AI-Assisted Operating Systems (2020s-Present)

Resource management

Security monitoring

Performance optimization