History

Operating Systems

1945–1955

mechanical relays

vacuum tubes

no programming languages

no assembly language

plugboards

punched cards

1955–1965

transistors

assembly languages

programming languages

job

job control language,
batch systems

batch systems

Fortran Monitor System

IBSYS

1965–1980

integrated circuits

major OS development projects

IBM OS/360

CTSS

MULTICS

...

modern OS concepts

multiprogramming

timesharing

UNIX (1970)
Bell Labs

Ken Thompson
Dennis Ritchie et al.

CTSS — MULTICS — UNIX

source code available for universities

initially in Assembly for DEC PDP-7

from version 4 mostly in C

1980–1990…

LSI (Large Scale Integration) circuits

microcomputers

personal computers

CP/M, Apple DOS, Microsoft DOS…

Xerox PARC
research center

laser printing, ethernet, the modern personal computer, graphical user interface (GUI) and desktop paradigm, object-oriented programming

Classic Mac OS

NeXTSTEP

Mac OS X

Windows 1, 2, 3
Windows 9x
Windows NT

Free Software Movement

GNU, Hurd, GPL
Linux
GNU/Linux

BSD License (variants)

FreeBSD
NetBSD
OpenBSD

…1990–present

internet, WWW…
mobile world
internet of things
…

Windows CE

Psion EPOC

Palm OS

iOS

Android

...

virtualization
cloud computing
distributed systems
...

Reading

Operating Systems Design and Implementation,
Third Edition by Andrew S. Tanenbaum

Chapter 1

Supplemental Reading

A Technical History of Apple's Operating Systems
by Amit Singh

osxbook.com/book/bonus/chapter1