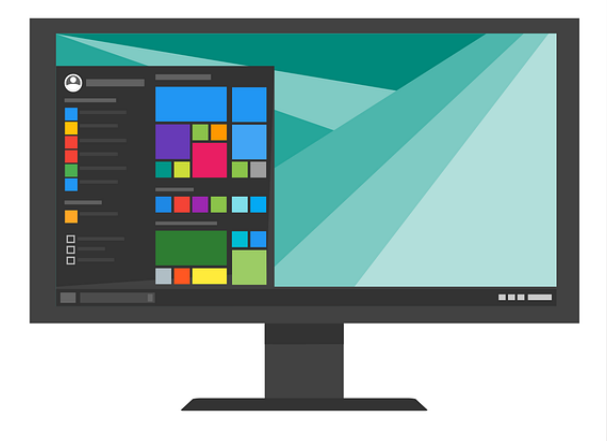
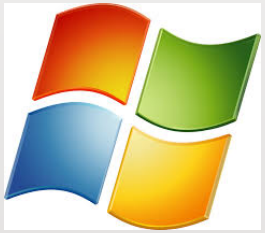
# INTRODUCTION TO OPERATING SYSTEM





# History Overview

**First Generation**

- 1940's - 1950's
- First electronic computer introduced without any operating systems
- Solve simple problem using mathematical model

**Second Generation**

- 1950's – 1960's
- First OS called GMOS – General Motors – IBM's machine – the 701
- Single system batch processing
- Mainframes – operated by professional operator

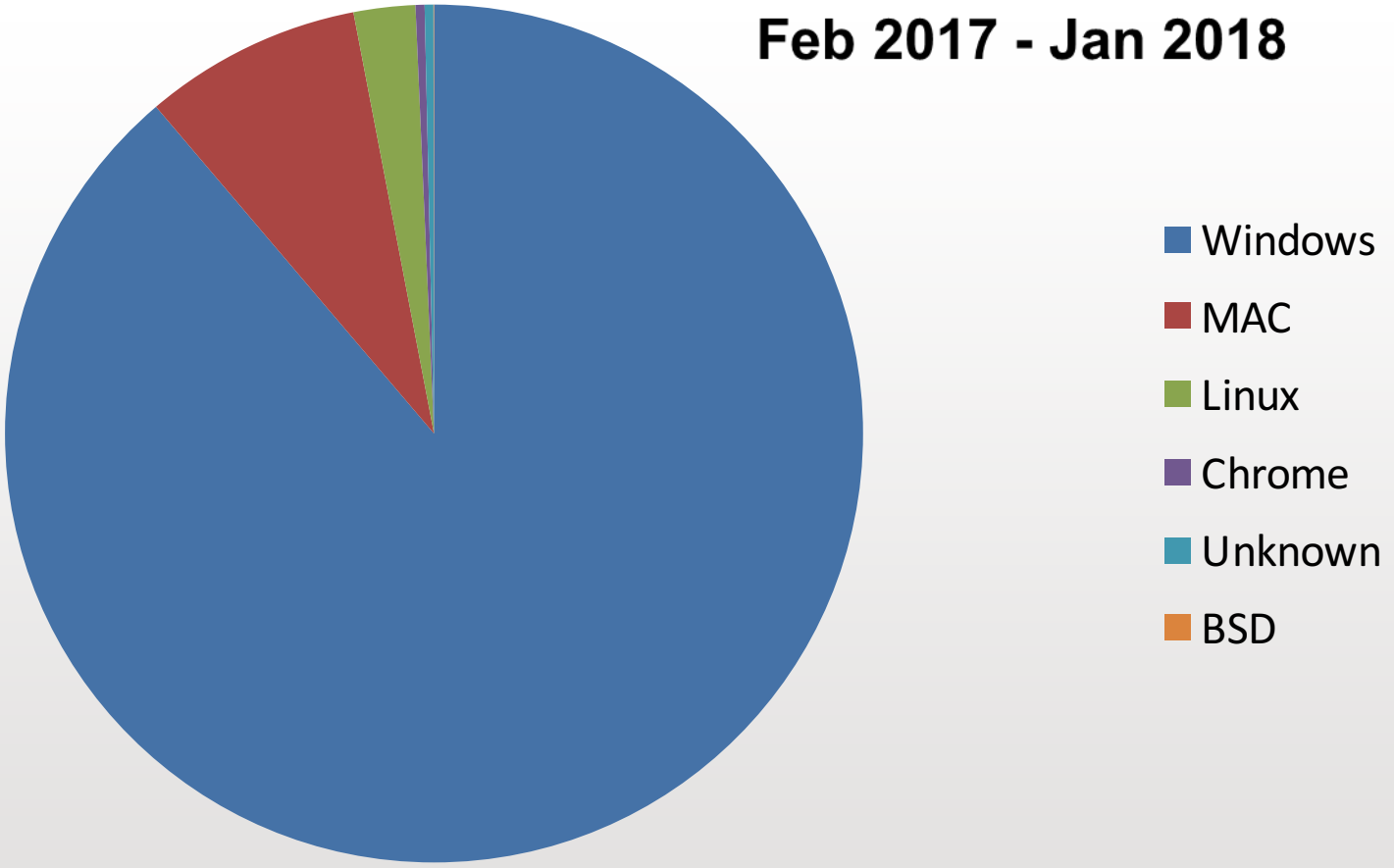
**Third Generation**

- 1960's – 1980'
- Multiprogramming system
- Growth of minicomputers (DEC PDP-1 in 1961)
- Help generation of personal computer

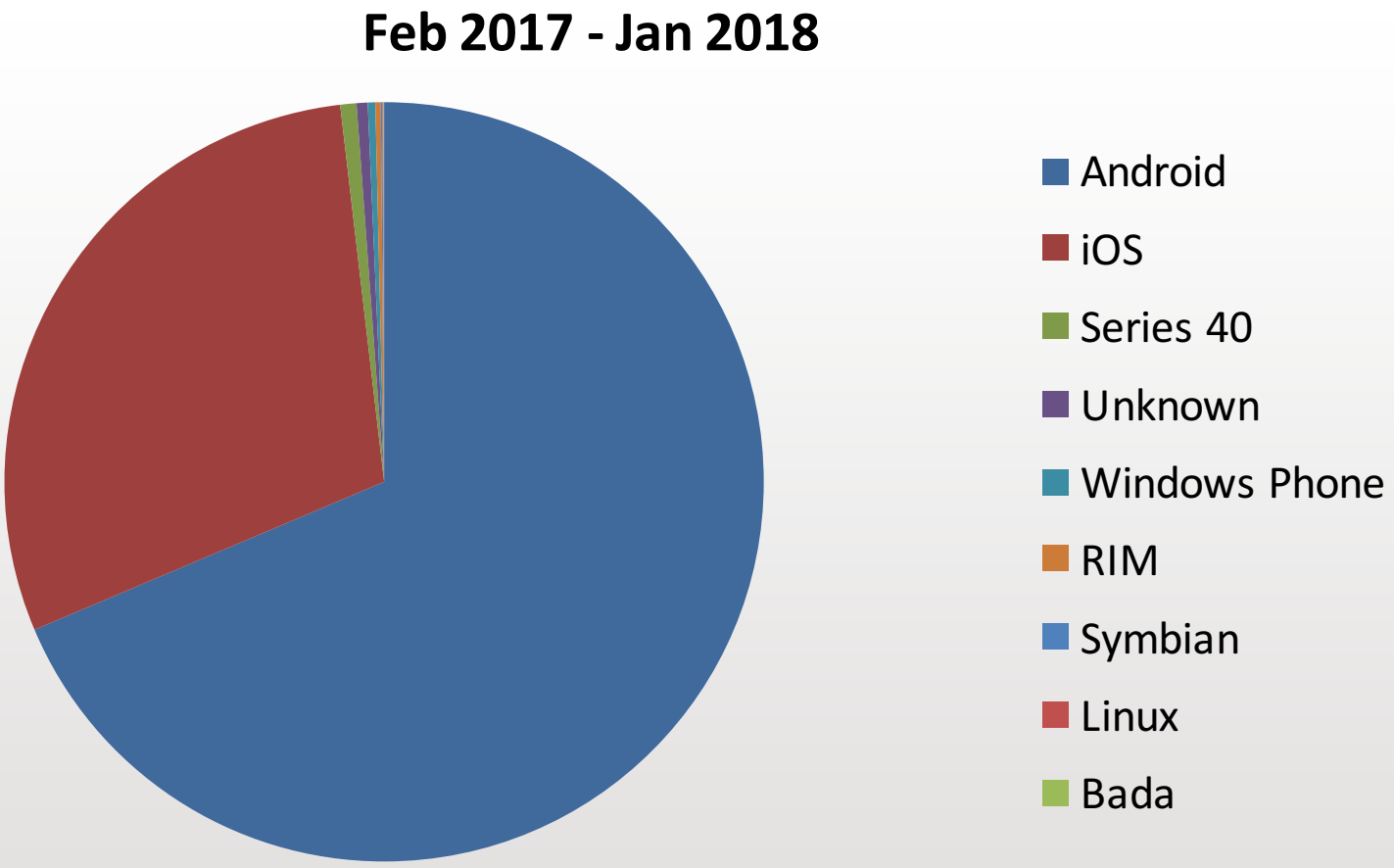
**Forth Generation**

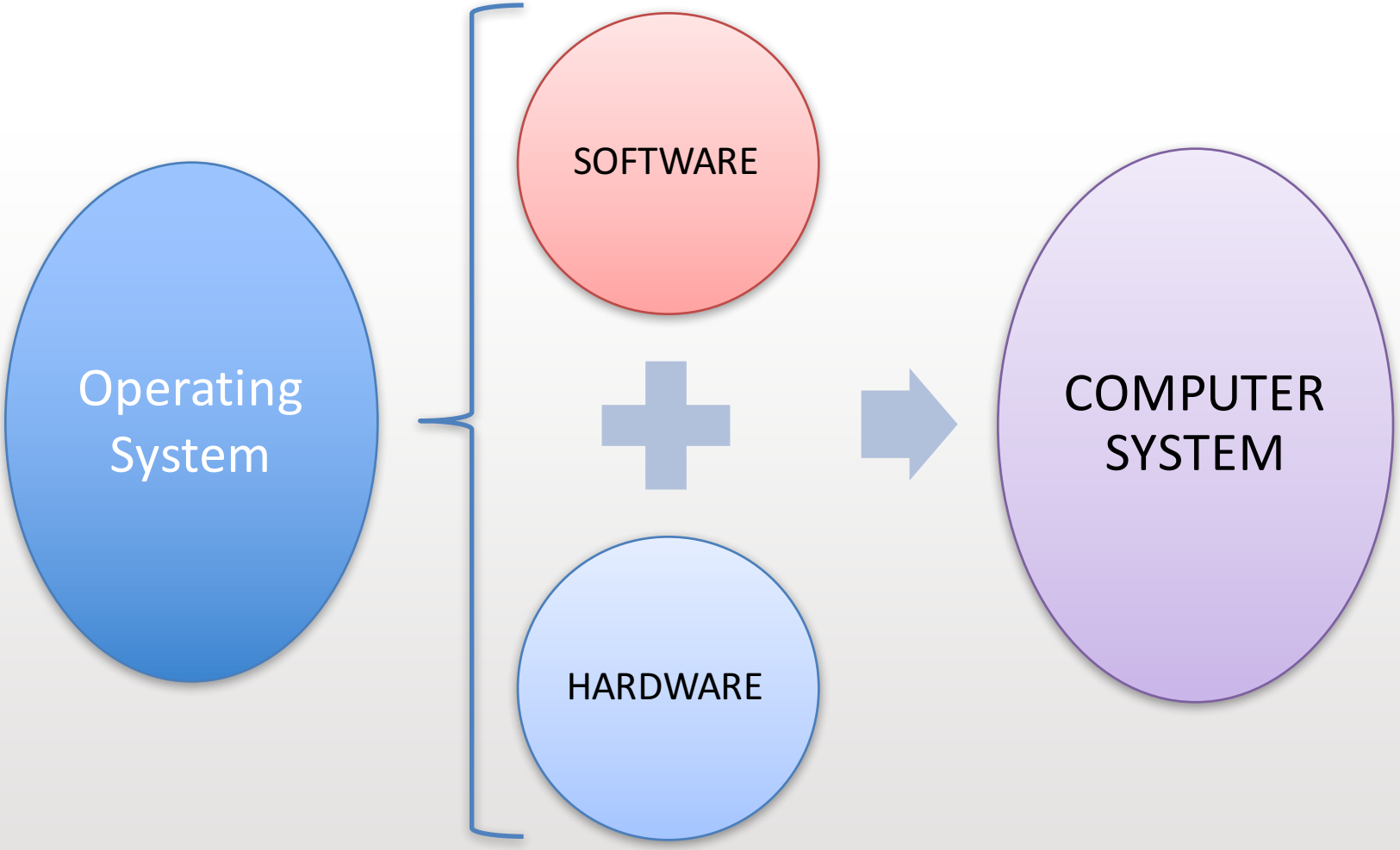
- Creation and development of personal computer
- Small fraction of minicomputers
- Windows OS - 1975 (Paul Allen and Bill)
- MS-DOS – 1981

# Desktop/ Laptop OS Market Share

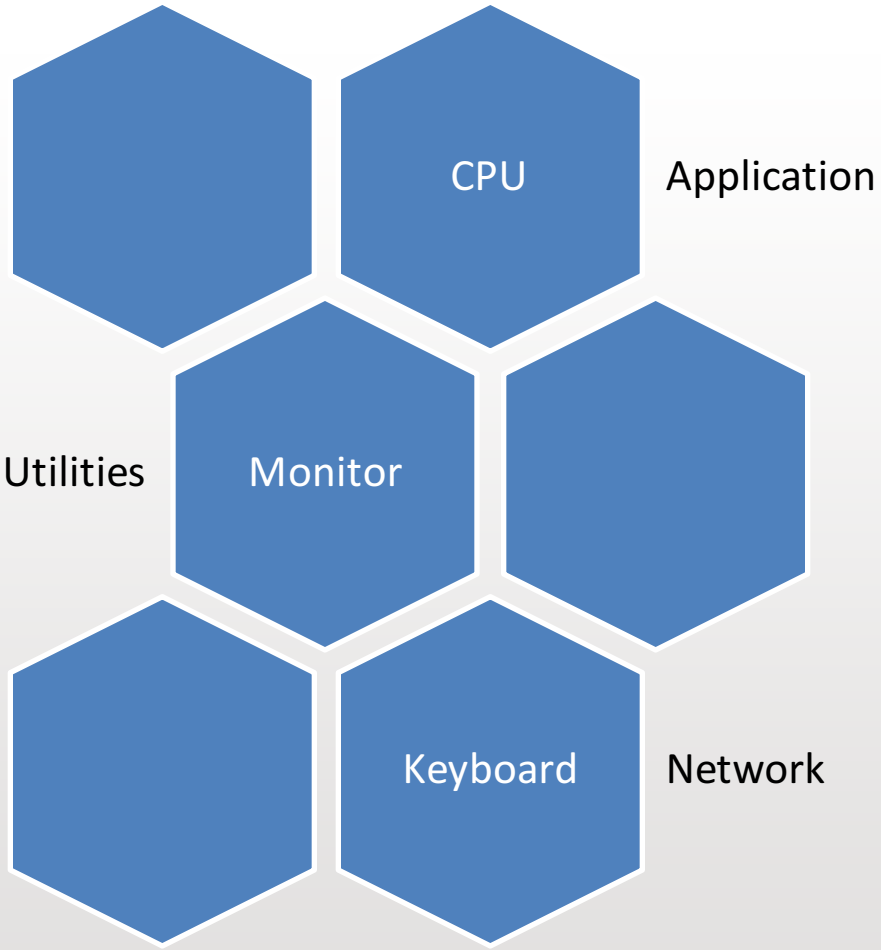


# Mobile OS Market Share




Operating System
SOFTWARE
HARDWARE
COMPUTER SYSTEM

# Part of OS Composition



# Operating System

- Part of computer system (software)
- Controls the execution of application programs
- In-between user and hardware.
- Controls hardware and software
  - file, device, section of main memory and nanosecond of processing time
  - who can use the system
  - how system is used

# Operating system goals

- Execute user programs
- User problems solving easier
- Computer system is suitable to use
- Hide difficulty of hardware
- Use computer hardware in well-organized