



# Computer Architectures in 2021

What's Not:

- OS is not the Arch
- Brand / Company

What is

- Chipset

How 2 different OS can run on  
same Processor?

Android  
Windows

ARM

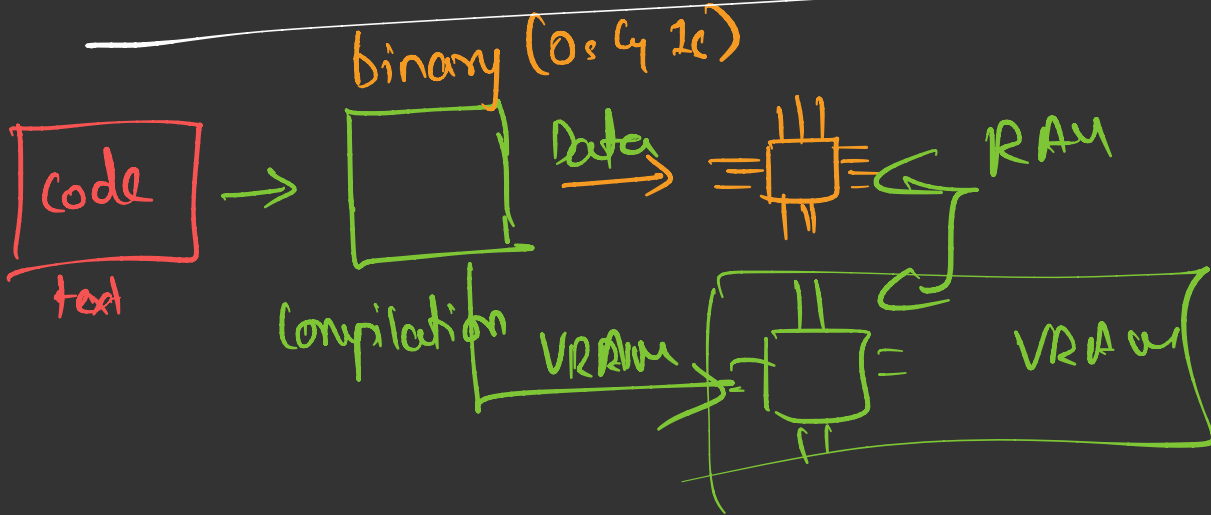
x64

Arch  
OS

ARM v7 ARM v8 amd64, x86, x64

Lang

C C++ Python JS Java Kotlin Swift  
PHP Go Dart Ruby



Research

→ Disassembly

→ Tool: objdump

# Anatomy of an Assembly Instruction:

opr dest, src

---

add ax, bx

---

$ax = ax + bx$

mov ax, bx

ax = 6  
bx = 10

Code → Compile



Binary

Exec



Disk



Hex



Map Instr

55

push rbp

48

2A

C9

mov a, b

Ing:

- 8 + GB Pendrive
- 5 GB + movie file
- | Format the pendrive to FAT32
- | copy the 5 GB file to the
- newly formatted pendrive

→ Observe the results.