Advanced Micro Devices (AMD) Architecture

CSC 137 - 4
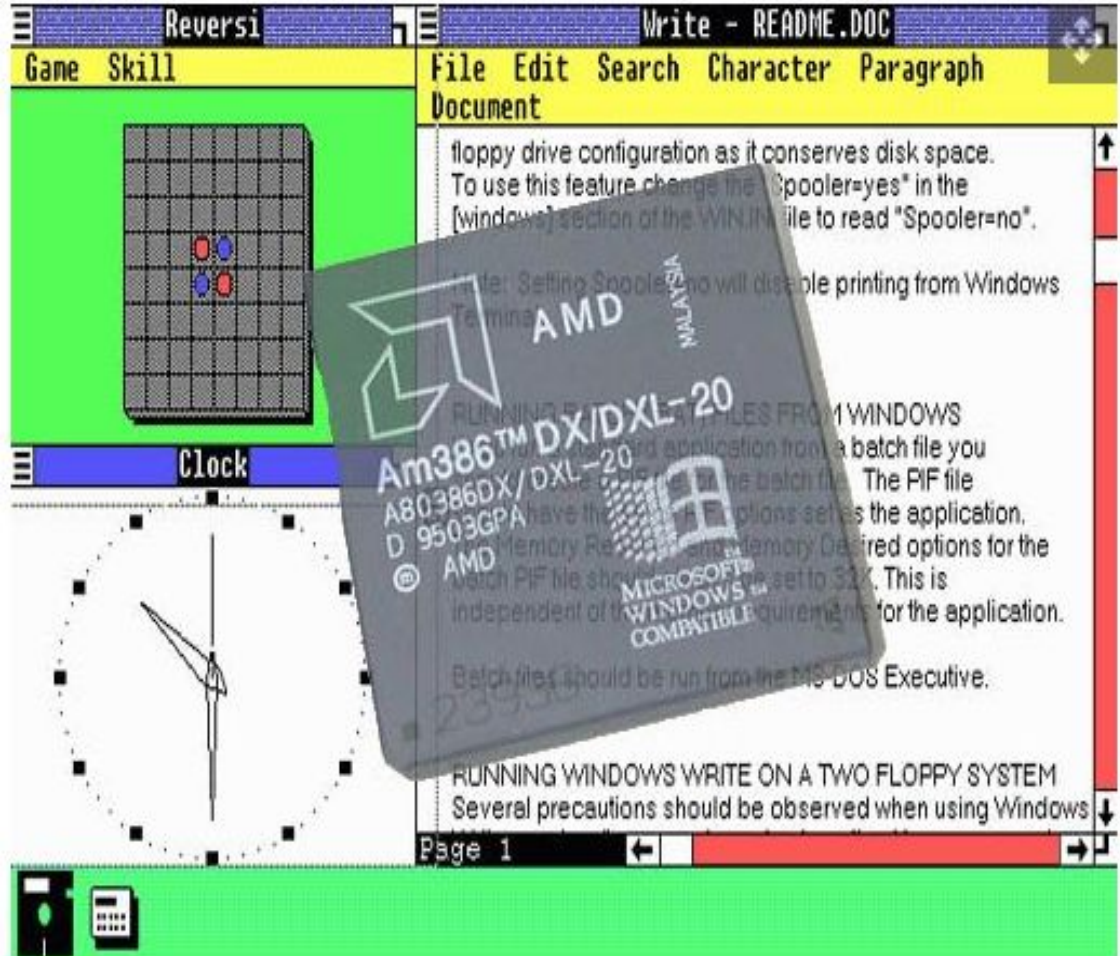By: Youser Alalusi & Daniel Beauchamp

What is AMD?

AMD is an American multinational semiconductor company based in Sunnyvale, California. It was incorporated on May 1969 by Jerry Sanders along with a few other colleagues. AMD develops computer processors, and related technologies for business and consumer markets.
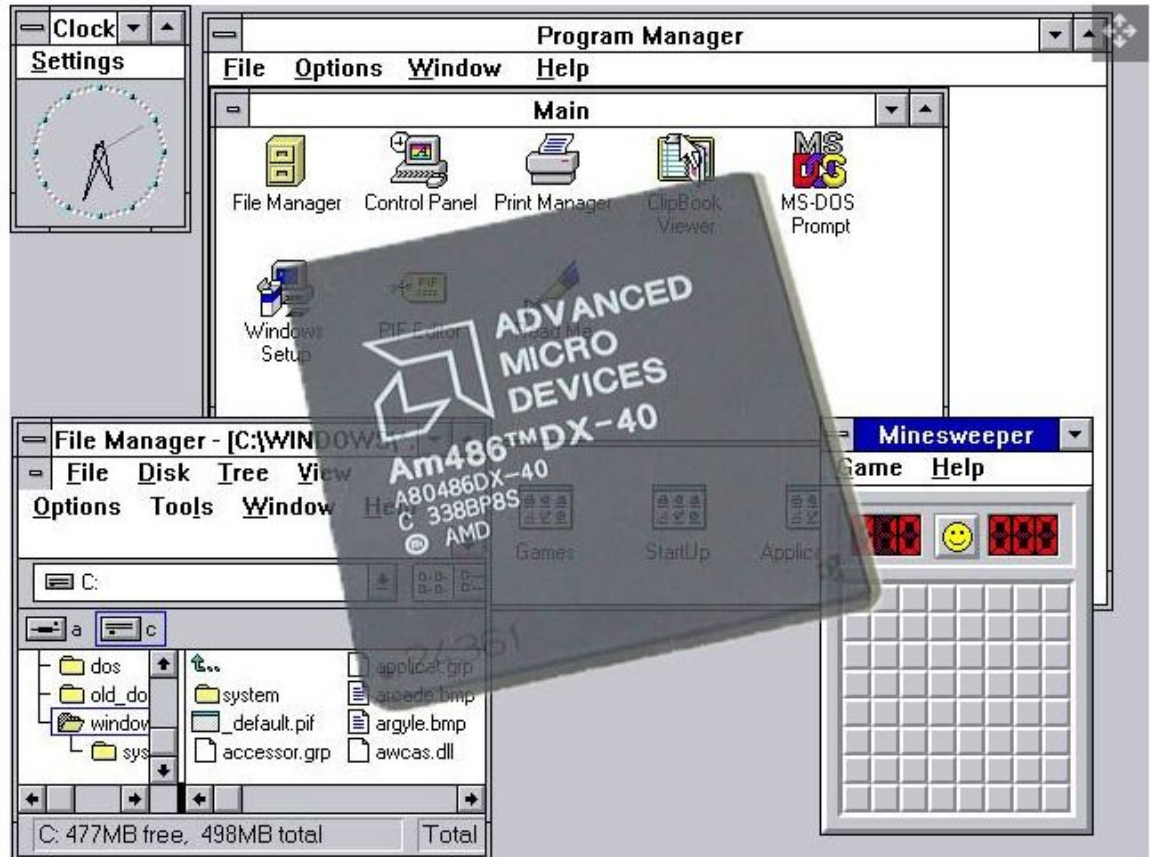
History of AMD CPUs

- Originally produced licensed copies of intel CPU's
- Led to legal battle when AMD produced AM386 shortly after Intel released their 80386
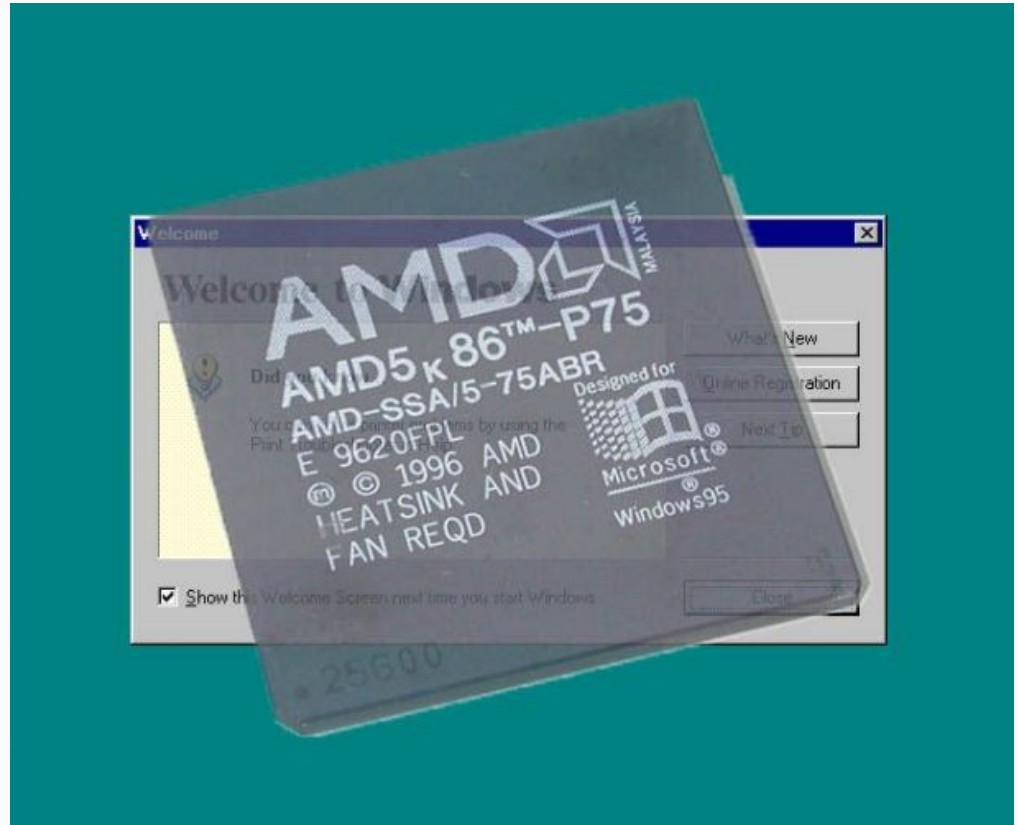
AM 486/ AMD5x86

- AM 486 : Final Intel Clone produced by AMD

- 5x86: Same Architecture as 486, higher clock speeds

AMD K5

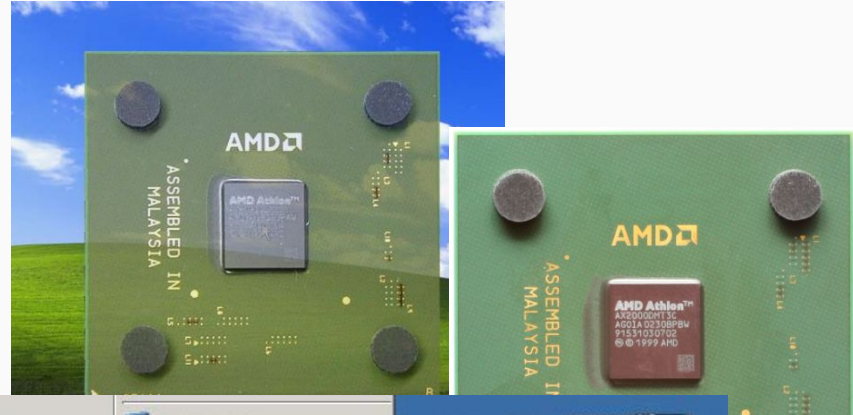- First x86 Processor designed fully in-house

AMD K6/K6 III

- K6: Created using design from purchased competitor, NexGen
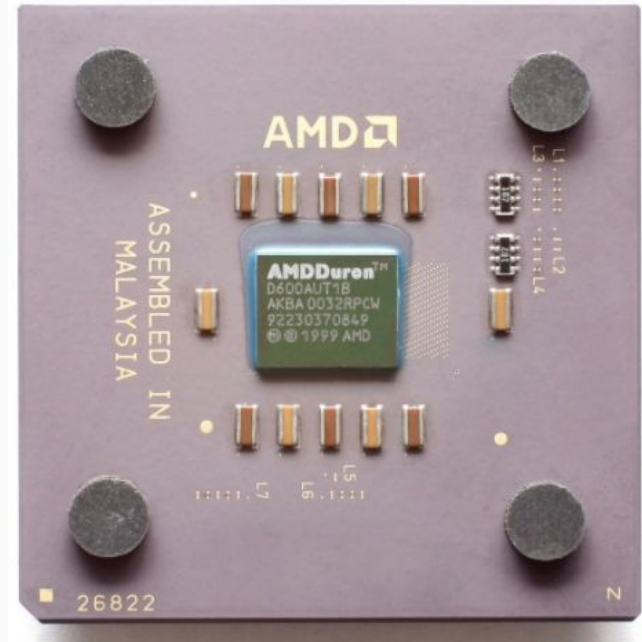
- K6 III: Integration of L2 Cache

Athlon Line

- Better clock speeds and Energy Efficiency
- 1999 - 2009
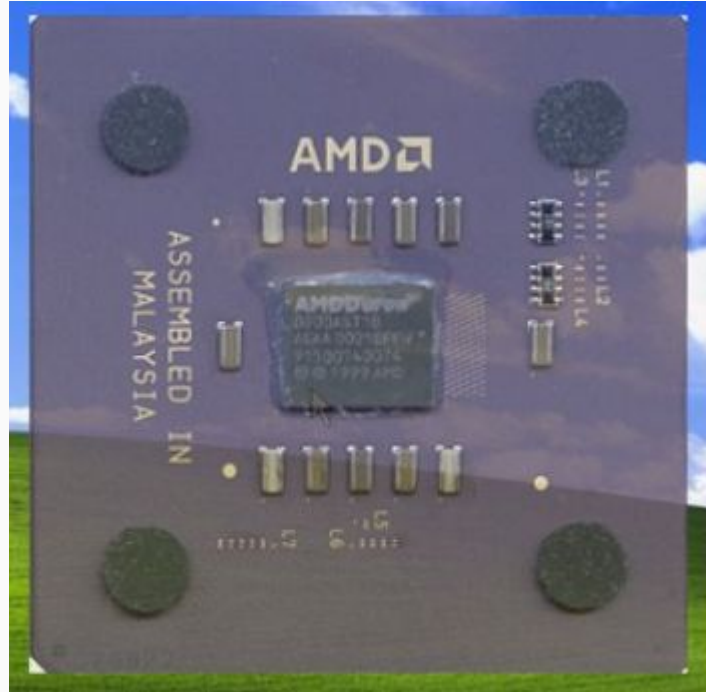
Duron Line

- Generally lower clock speeds
- 2000 - 2003

Sempron Line

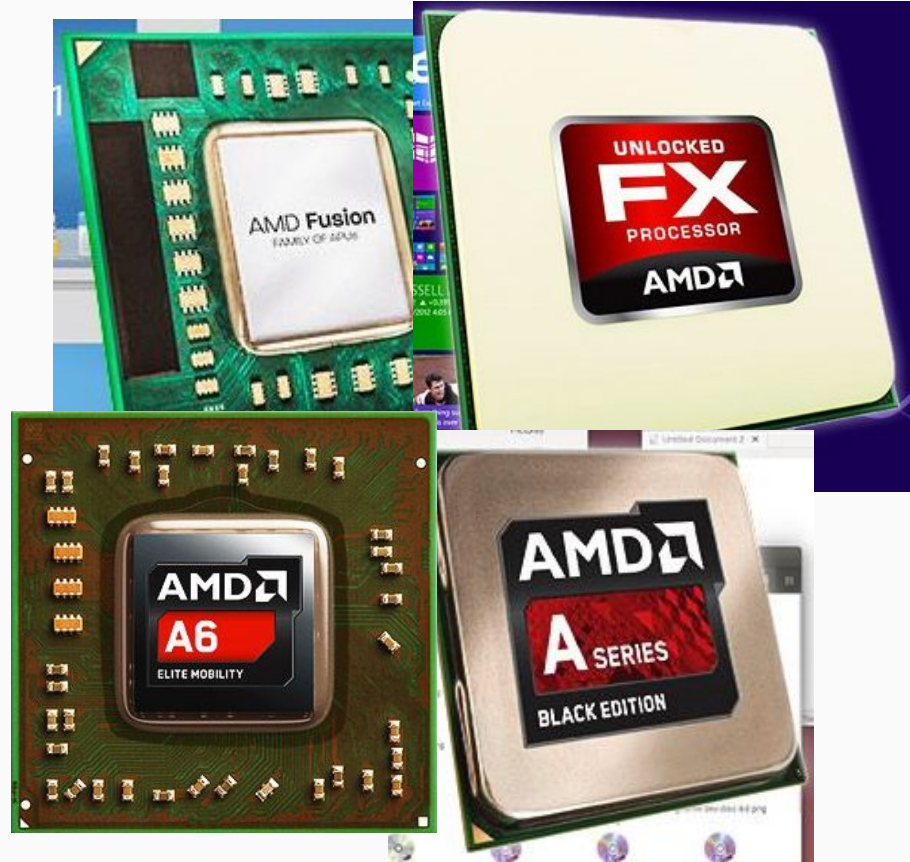- Mid-Line between Athlon & Duron
- 2004 - 2009

AMD Phenom/ Phenom II X4

- Phenom: First Quad Core, but ran into issues
- Phenom II: Overcame shortcomings of Phenom

Multiple Processor releases since 2010
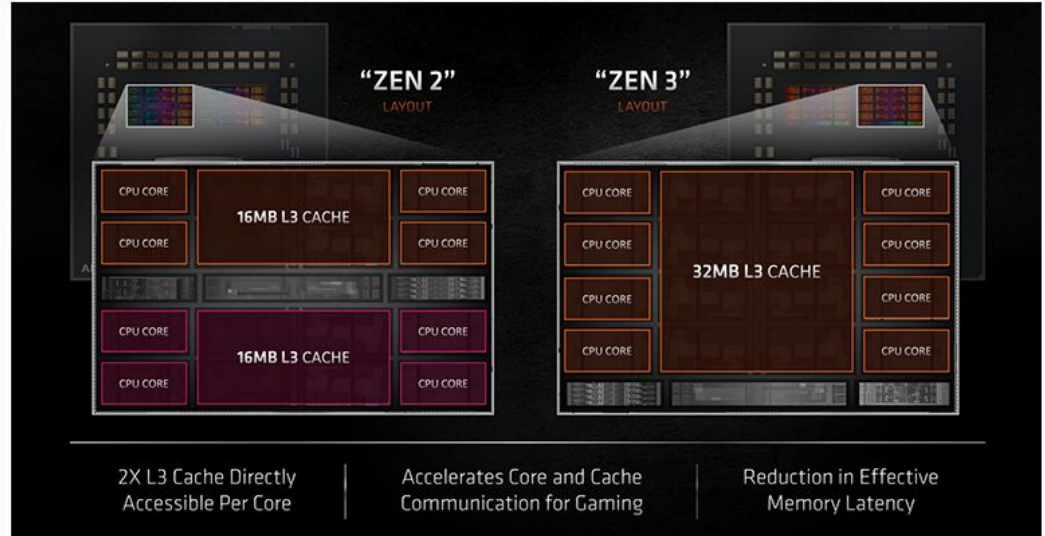
- Llano, Bobcat, Bulldozer, Piledriver, Steamroller, Jaguar, Excavator

AMD Ryzen

- Current Line of CPU's
- Zen 3 released just last year

AMD Statistic

As of January 5th, 2021 AMD's desktop CPU market share stands at 50.8%.

This is the first time in 15 years that AMD has edged out Intel due to the strength of its Ryzen series processors that was first released in 2017.

Advantages of AMD

- Have the ability to personalize your system by easy use interface, multiple user modes, automatic overclocking, system monitoring, system stability tests, etc.
- CPUs only use power when required which helps save energy.

- Compared to other brands like Intel, AMD is cheaper and a great choice especially for gamers because it has a great quality graphics processor.
- Includes EVP which stands for Enhanced Virus Protection, this detects virus and malwares and can help check whether there is a virus content.

Disadvantages of AMD

- The main reason why AMD is cheaper is due to its lack of popularity.

- It has fast heat generation because it doesn't use the heat sink as its main cooling component, instead it uses the fan as a cooling component.

"We design and integrate technology that powers millions of intelligent devices, including personal computers, tablets, game consoles and cloud servers that define the new era of surround computing."

-AMD

Thank You!

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