

CHAPTER 4 NOTES

Decimal Number System

Called base 10 because 10 symbols are available

Binary Number System

Computers function in base 2, or the binary number system, where there are only two values

Bit

A combination of binary digit

The smallest possible unit of data a computer can recognize or use

Byte

A group of eight bits

Text Codes

ASCII

Unicode

Central Processing Unit

The computer's primary processing hardware, which interprets and executes program instructions and manages the functions of input, output, and storage devices

Millions of Instructions Per Second (MIPS)

The CPU performance measurement

Factors Affecting Processing Speed

Memory

System clock

The bus

Cache memory

Cache memory

Speeds processing by storing frequently used data or instructions in its high-speed memory

Microcomputer Processors

Intel

Advanced Micro Devices (AMD) processors

Others..

RISC

Parallel processing

Memory

Allows the CPU to store and retrieve data quickly

Two Kinds of Memory

Read-only memory (ROM): nonvolatile

Random-access memory (RAM): volatile

ROM

ROM always holds the same data, for example the computer's start-up instructions

RAM

RAM's job is to hold programs and data while they are in use

RAM can change instantly

Extending the Processor's Power to Other Devices

- Serial and parallel ports
- Specialized expansion ports

Examples of Specialized Expansion Ports

- USB
- IEEE 1394 (FireWire)
- Musical Instrument Digital Interface (MIDI)

Expansion Slots and Boards

- Allow users to adapt, or configure, the PC to their own needs

- AGP

- PCI

PC Card

- Another type of expansion card, the size of a credit card

LAB ASSIGNMENT:

- EXCEL Project 1

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