Hardware Overview

Input output devices – how the computer receives and sends information to the physical world. Screens, mouse, keyboard

CPU - Central Processing Unit: Runs the Program – always wonders “what to do next.” Doesn’t have intelligence, but is very fast

Input Devices- keyboard mouse touch screen

Output Devices: Screen, speakers, printer, dvd burner

RAM - Main Memory: fast small temporary storage, lost on reboot

Disk Drive/Memory stick – Secondary memory, slower large permanent storage, lasts until deleted

**Programming**

Command Prompt :

Dir- list folders and files

Cd (folder name): change to a new folder

**Reserved Words**

Graphical user interface, text

Description automatically generatedA picture containing text

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Python Scripts: interactive python is good for experiments and programs of 3-4 lines long, most programs are longer, so they are typed into a file and python is told to run the commands in the file, this is giving python a script, as a convention, we add .py as the suffix on the end of the file to indicate they contain python

**Interactive VS Script**

**Interactive** – you type directly into Python one line at a time and it responds

**Script –** you enter a sequence of statements/lines into a file using a text editor and tell python to execute the statements in the file;

**Program Steps/Flow –** a program is a sequence of steps that are conducted in order, some steps are conditional and can be skipped, sometimes a step or group of steps must be repeated, steps can be stored and used repeatedly as needed throughout various places in a program

Graphical user interface

Description automatically generatedGraphical user interface, application

Description automatically generated

Text

Description automatically generated**Variable –** named place in the memory where a programmer can store data and later retrieve the data using the given name of the variable, variable values can be changed in a later statement, the name must start with a letter or underscore, must consist of only letters numbers and underscores, is case sensitive,

**Assignment Statements –** We assign a value to a variable using the assignment statement (**=**), an assignment statement consists of a variable and an expression located on the right hand side

Graphical user interface, text

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