

**Project # 06**

* *Subject:* ***Programming Fundamentals***
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***Q1. How are keys pressed on a keyboard interpreted correctly by the computer? (How does a keyboard communicate with the CPU?)***

*A keyboard’s function is to act as an input device.* A person can type a document, shortcuts, play games and perform a variety of other tasks. To identify the tasks, they use circuits to translate a person's input into a signal the computer can understand. A keyboard has its own processor that carries information to and from that processor. When you press a key, it presses a switch which then completes the circuit allowing a specific amount of current to flow through. When the computer finds a circuit that is closed, it compares the location of that circuit on the key matrix to the character map. When you start typing the processor in the keyboard detects the key matrix and decides what characters to send to the computer. It holds the input in the memory and then send the data to the computer. The signal is processed by the computer’s keyboard controller. The keyboard controller is an integrated circuit or IC that processes the data that comes from the keyboard and then gives it to the operating system to display it accordingly.

***Q2. Describe common keyboard shortcuts that you can use (using the keyboard modifier key, and function key) to ease every day computing operations?***