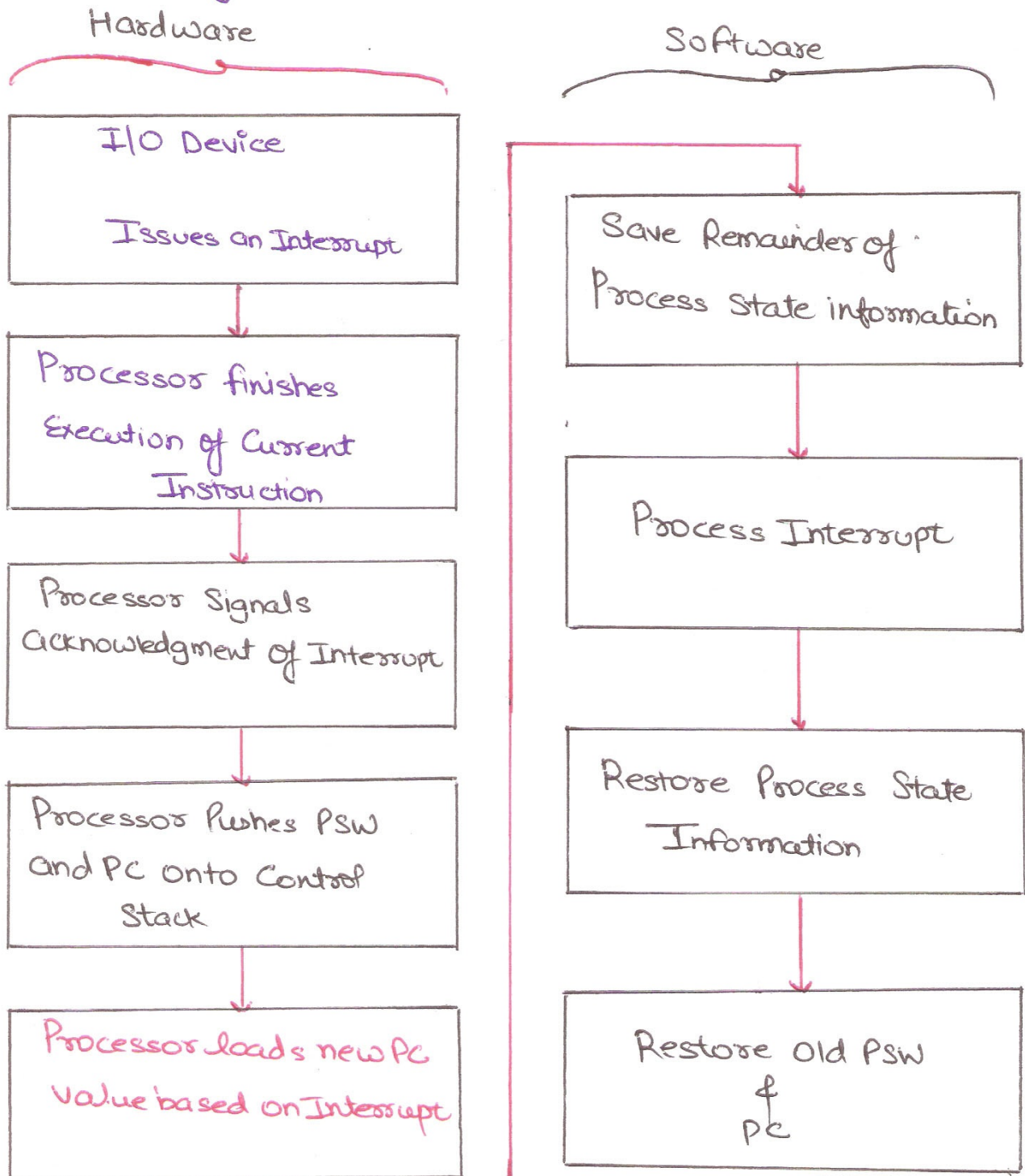


Interrupt Processing



Interrupt processing procedure

- I/O device issues the interrupts
- The processor finishes the execution of an instruction before responding to the interrupt.



- The processor checks for an interrupt. If there is one, it then sends an acknowledgement signal to the I/O device that issued the interrupt. The signal allows the device to remove its interrupt signal.
- To switch to run interrupt handler, information about the current program is stored, so that its execution may be resumed later including Program Status Word (PSW) and Program Counter (PC).
- The processor loads the program counter with the entry location of the interrupt handler. A typical case is there are a set of routines, each for one type of interrupt, or each for one device.
- The interrupt handler may continue to save other information that is considered as part of process state.
- The handler performs the interrupt processing.
- When handler finishes, the saved register values are stored into the registers that originally hold them when interrupt handler returns.
- Finally PSW and PC values of the interrupted program are restored, then the program may continue to execute.

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