EE309 Assignment 1

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1. Outline:
   - Timer 0 interrupts are used to cause interrupts at every 25ms. After reloading the correct values in the timer, the interrupt jumps to FSM subroutine
   - In FSM subroutines we save ACC, PSW, DPH and DPL on stack, then perform the instructions
   - The instructions for each state are - checking the state, checking the action, moving to a new state and setting the new state as current state.
2. Tests for state:
   - This is done by Do_Test subroutine via Test_tab (Test table)
   - 0 corresponds to Any Key and 1 corresponds to The Key
3. Actions:
   - This is done by Do_action subroutine, using Yes_Actions or No_actions tables
   - Then the jump table Action_Jmp jumps to DoNothing, FindKey or ReportKey (0, 1, 2 respectively)
4. Next state test:
   - This is done by Set_next via Yes_next and No_next (Similar to previous section)
5. Test and Action subroutines:
   - AnyKey: F0 flag set if key pressed, cleared otherwise
   - TheyKey: F0 set if key corresponding to KeyPressed is pressed
   - DoNothing: Empty instruction
   - FindKey: Finds which key pressed and enters key code
   - ReportKey: Circular data buffer is used to store KeyCode