



Fig 3.8 Main (Solution)



Main program

```
START:  Move
        Store
        Clear
        Store
        Move
        StoreByte
        MoveControl
        Or
        MoveControl
        MoveControl
        Or
        MoveControl
        next instruction
```

```
R2, #LINE
R2, PNTR
R2
R2, EOL
R2, #2
R2, KBD_CONT
R2, IENABLE
R2, R2, #2
IENABLE, R2
R2, PS
R2, R2, #1
PS, R2
```

Initialize buffer pointer.

1. What is the purpose of EOL?

Clear end-of-line indicator.

1. Indicate to other programs EOL

2. Why these EIs use different instructions?

Enable interrupts in the keyboard interface.

Enable keyboard interrupts in the processor control register.

2. a) KBD local using memory mapped I/O:
b) Or the other bits so as not to lose them in control R;
c) Or the other bits so other interrupts remain EI/DI

3. Why these two Writes to Control Registers use different instructions?

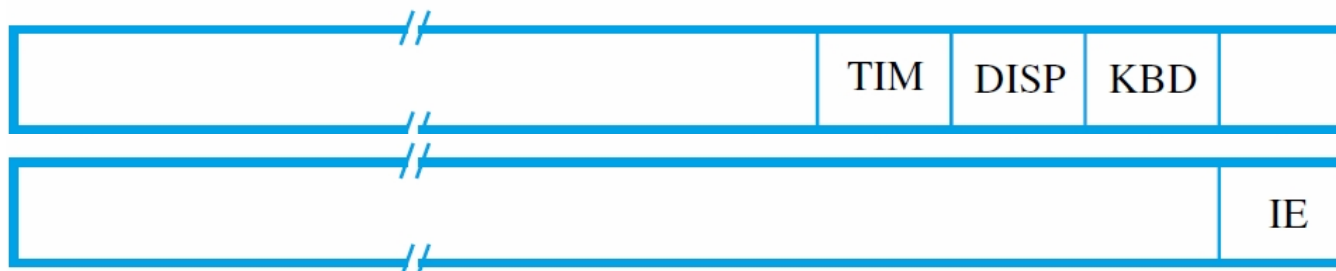
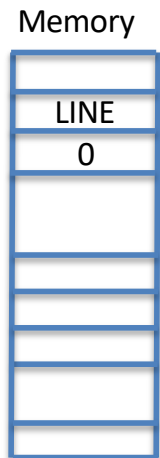
3. Local KBD is memory mapped so using Store while PS is a control register in CPU

0x4008



KBD_CONT

LINE: 1st Char



IENABLE

PS