Q3 Write a program to take samples of input analog signal at an interval of 2 seconds Convert it into digital and save it at memory location 9000H onwards.

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MOV SI, 9000H  : Initialise memory pointer
MOV AL, 99H
OUT 9AH, AL  : Initialise 8255

UP: MOV AL, 01H
    OUT 9AH, AL  : Send SOC
LOOP: IN AL, 9CH  : Check for the EOC signal
    AND AL, 01H  : Mask other bits except PC0
    CMP AL, 01H  : Check PC0 bit
    JNZ LOOP  : Is PC0=1, if not go to loop.
    MOV AL, 02H
    OUT 9AH, AL  : Send OE signal
    IN AL, 98H  : Input digital data
    MOV [SI], AL  : Store the result in memory
    INC SI  : Increase the memory pointer by 1
    CALL Delay  : Introduce the 2s delay
    JMP UP
```