STRING INSTRUCTIONS:

① Used for moving large blocks of data.

② For all string instructions, the memory source is DS:SI & memory destination is ES:DI.

③ The offset memory pointers, SI & DI, are automatically incremented or decremented on the state of DF → by 1 for bytes or by 2 for words.

STOSB → ES:[DI] ← AL

           If DF = 0, DI ← DI + 1
           If DF = 1, DI ← DI − 1

STOSW → ES:[DI] ← AL
             ES:[DI+1] ← AH

           If DF = 0, DI ← DI + 2
           If DF = 1, DI ← DI − 2

Explanation: Transfer a byte (STOSB) or word (STOSW) from register AL or AX to the string element addressed by DI in the extra segment. If Direction flag (DF=0) → increment DI, else decrement DI. Flags are not affected.