Name: **Sahil Dattatray Mohite**

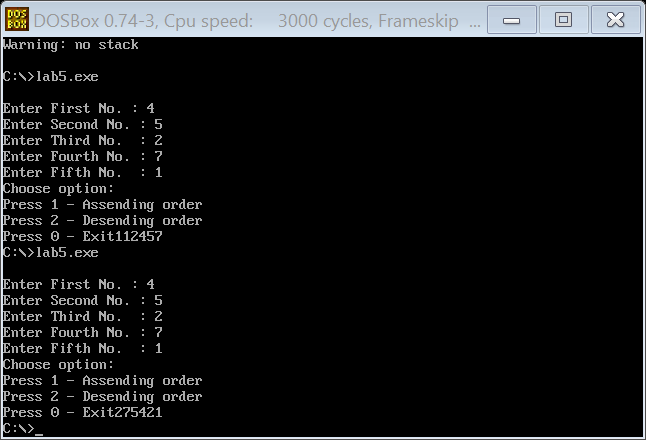
Roll No: **30** Batch: **B2**

PRN: 12010501

Lab Assignment 5

**Write an ALP program to sort in Ascending and Descending order(Menu driven: bubble sorting method)**

|  |
| --- |
| .model small  .data  msg1 db **10**, **13**, "Enter First No. : $"  msg2 db **10**, **13**, "Enter Second No. : $"  msg3 db **10**, **13**, "Enter Third No. : $"  msg4 db **10**, **13**, "Enter Fourth No. : $"  msg5 db **10**, **13**, "Enter Fifth No. : $"  msg6 db **10**, **13**, "Choose option: $"  msga db **10**, **13**, "Press 1 - Assending order$"  msgd db **10**, **13**, "Press 2 - Desending order$"  msge db **10**, **13**, "Press 0 - Exit$"  .code  MOV ax, **@data**  MOV ds, ax  MOV ah,**09**h  lea dx, msg1  int **21**h  MOV AH, **01**h  int **21**h  SUB AL, **30**h  MOV BL, AL  cmp bl,**09**h  JLE X1  sub bl, **07**h  X1: MOV AH, **09**H  lea dx, msg2  int **21**h  MOV AH, **01**h  int **21**h  SUB AL, **30**h  MOV BH, AL  cmp bh,**09**h  JLE X2  sub bh, **07**h  X2: MOV ah,**09**h  lea dx, msg3  int **21**h  MOV AH, **01**h  int **21**h  SUB AL, **30**h  MOV CL, AL  cmp cl,**09**h  JLE X3  sub cl, **07**h  X3: MOV ah,**09**h  lea dx, msg4  int **21**h  MOV AH, **01**h  int **21**h  SUB AL, **30**h  MOV CH, AL  cmp ch,**09**h  JLE X4  sub ch, **07**h  X4: MOV ah,**09**h  lea dx, msg5  int **21**h  MOV AH, **01**h  int **21**h  SUB AL, **30**h  MOV DH,Al  cmp dh,**09**h  JLE X5  sub dh, **07**h  mov al, dh  X5:MOV ah,**09**h  lea dx, msg6  int **21**h  MOV ah,**09**h  lea dx, msga  int **21**h  MOV ah,**09**h  lea dx, msgd  int **21**h  MOV ah,**09**h  lea dx, msge  int **21**h  mov dh, Al  MOV ah,**01**h  int **21**h  SUB AL, **30**h  MOV AH,AL  cmp ah,**00**h  Jnz c1  MOV ah,**4**ch  int **21**h  c1:cmp ah,**01**h  JLE c2  Y5:mov dl,**00**h  cmp bh,bl  jle Y6  xchg bl, bh  mov dl, **01**h  Y6:cmp cl,bh  jle Y7  xchg bh,cl  mov dl, **01**h  Y7:cmp ch,cl  jle Y8  xchg cl, ch  mov dl, **01**h  Y8:cmp dh,ch  jle Y9  xchg ch, dh  mov dl, **01**h  Y9:cmp dl,**00**h  jnz Y5  jmp c3  c2:  Y1:mov dl,**00**h  cmp bl,bh  jle Y2  xchg bl, bh  mov dl, **01**h  Y2:cmp bh, cl  jle Y3  xchg bh, cl  mov dl, **01**h  Y3:cmp cl, ch  jle Y4  xchg cl, ch  mov dl, **01**h  Y4:cmp ch, dh  jle z6  xchg ch, dh  mov dl, **01**h  z6:cmp dl, **00**h  jnz Y1  c3:mov dl, bl  add dl, **30**h  cmp dl, **39**h  jle z1  add dl, **07**h  z1:mov ah,**02**h  int **21**h  mov dl, bh  add dl, **30**h  cmp dl, **39**h  jle z2  add dl, **07**h  z2:mov ah,**02**h  int **21**h  mov dl, cl  add dl, **30**h  cmp dl, **39**h  jle z3  add dl, **07**h  z3:mov ah,**02**h  int **21**h  mov dl, ch  add dl, **30**h  cmp dl, **39**h  jle z4  add dl, **07**h  z4:mov ah,**02**h  int **21**h  mov dl, dh  add dl, **30**h  cmp dl, **39**h  jle z5  add dl, **07**h  z5:mov ah,**02**h  int **21**h  MOV ah,**4**ch  int **21**h  end |

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