**PROGRAMS**

1. **Write an ALP to find the largest from given series of Numbers**

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| **ASSUME CS:CODE, DS:DATA**  **DATA SEGMENT**  **LIST DB 04H,0AH,01H,21H,09H**  **LARG DB 0H**  **DATA ENDS**  **CODE SEGMENT**  **START:**  **MOV AX, DATA**  **MOV DS, AX**  **MOV AX,0H**  **MOV CL,04**  **LEA SI,LIST**  **MOV AL,[SI]**  **L2:**  **CMP AL,[SI+1]**  **JNC L1**  **MOV AL,[SI+1]**  **L1:**  **INC SI**  **DEC CL**  **JNZ L2**  **MOV LARG,AL**  **INT 03H**  **CODE ENDS**  **END START** | **Result**  **Registers**    **Data Segment**    **Flag Register** |

1. **Write an ALP to find the smallest from given series of Numbers**

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| --- | --- |
| **ASSUME CS:CODE, DS:DATA**  **DATA SEGMENT**  **LIST DB 04H,0AH,01H,21H,09H**  **SMALL DB 0H**  **DATA ENDS**  **CODE SEGMENT**  **START:**  **MOV AX, DATA**  **MOV DS, AX**  **MOV AX,0H**  **MOV CL,04**  **LEA SI,LIST**  **MOV AL,[SI]**  **L2:**  **CMP AL,[SI+1]**  **JC L1**  **MOV AL,[SI+1]**  **L1:**  **INC SI**  **DEC CL**  **JNZ L2**  **MOV SMALL,AL**  **INT 03H**  **CODE ENDS**  **END START** | **Result**  **Registers**    **Data Segment**    **Flag Register** |

1. **Write an ALP to sort the given series of Numbers in ascending order**

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| **ASSUME CS:CODE, DS:DATA**  **DATA SEGMENT**  **LIST DB 02H,22H,45H,01H,32H**  **DATA ENDS**  **CODE SEGMENT**  **START:**  **MOV AX, DATA**  **MOV DS, AX**  **MOV AX,0H**  **MOV CL,04**  **GO3: LEA SI,LIST**  **MOV DL,04H**  **GO1: MOV AL,[SI]**  **CMP AL,[SI+1]**  **JC GO2**  **XCHG AL,[SI+1]**  **MOV [SI],AL**  **GO2: INC SI**  **DEC DL**  **JNZ GO1**  **DEC CL**  **JNZ GO3**  **INT 03H**  **CODE ENDS**  **END START** | **Result**  **Data Segment** |

1. **Write an ALP to sort the given series of Numbers in descending order**

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| --- | --- |
| **ASSUME CS:CODE, DS:DATA**  **DATA SEGMENT**  **LIST DB 02H,22H,45H,01H,32H**  **DATA ENDS**  **CODE SEGMENT**  **START:**  **MOV AX, DATA**  **MOV DS, AX**  **MOV AX,0H**  **MOV CL,04**  **GO3: LEA SI,LIST**  **MOV DL,04H**  **GO1: MOV AL,[SI]**  **CMP AL,[SI+1]**  **JNC GO2**  **XCHG AL,[SI+1]**  **MOV [SI],AL**  **GO2: INC SI**  **DEC DL**  **JNZ GO1**  **DEC CL**  **JNZ GO3**  **INT 03H**  **CODE ENDS**  **END START** | **Result**  **Data Segment** |