Rajshahi University of Engineering & Technology

Dept. of Computer Science & Engineering

Assingment on CSE 508

Submitted by :

Arnaf Aziz Torongo

Roll:103025

Dept. of CSE,RUET

Submitted to:

Md. Robiul Islam

Assistant Professor

Dept. of CSE,RUET

Chapter 4

Exercise 8: Write a program to (a)display a "?" (b) read two decimal digits whose sum is less than 10 (c) display them and their sum on the next line with appropriate message.

Sample execution:

?27

THE SUM OF 2 AND 7 IS 9

SOURCE CODE

```
.MODEL SMALL
.STACK 100H
.DATA
MSG1 DB 0DH,0AH,'THE SUM OF $'
MSG2 DB ' AND $'
MSG3 DB ' IS $'
.CODE
MAIN PROC

MOV AX,@DATA
MOV DS,AX

MOV AH,2
MOV DL,'?'
INT 21H

MOV AH,1
INT 21H
MOV BL,AL

MOV AH,1
INT 21H
MOV BH,AL
```

```asm
LEA DX,MSG1
MOV AH,9
INT 21H

MOV AH,2
MOV DL,BL
INT 21H

LEA DX,MSG2
MOV AH,9
INT 21H

MOV AH,2
MOV DL,BH
INT 21H

LEA DX,MSG3
MOV AH,9
INT 21H

SUB BL,30H
SUB BH,30H

ADD BL,BH
ADD BL,30H

MOV AH,2
MOV DL,BL
INT 21H

MOV AH,4CH
INT 21H
MAIN ENDP
END MAIN
```

Exercise 9: A Program to (a) prompt the user (b) read first, middle, and last initials of a person's name and (c) display them down the left margin

Sample execution:

ENTER THREE INITIALS: JFK

J

F

K

SOURCE CODE:

```
.MODEL SMALL
.STACK 100H
.DATA
MSG DB "ENTER THREE INITIALS: $"
LINE DB 0DH,0AH,'$'
.CODE
MAIN PROC

 MOV AX,@DATA
 MOV DS,AX

 LEA DX,MSG
 MOV AH,9
 INT 21H

 MOV AH,1
 INT 21H
 MOV BH,AL

 MOV AH,1
 INT 21H
 MOV BL,AL
```

```
MOV AH,1
INT 21H
MOV CL,AL

LEA DX,LINE
MOV AH,9
INT 21H

MOV AH,2
MOV DL,BH
INT 21H


LEA DX,LINE
MOV AH,9
INT 21H

MOV AH,2
MOV DL,BL
INT 21H

LEA DX,LINE
MOV AH,9
INT 21H

MOV AH,2
MOV DL,CL
INT 21H

MOV AH,4CH
INT 21H
MAIN ENDP
END MAIN
```

Exercise 10: A Program to read one of the hex digits A-F, and display it on the next line in decimal.

SOURCE CODE:
```
.MODEL SMALL
.STACK 100H
.DATA
MSG1 DB "ENTER A HEX DIGIT: $"
MSG2 DB "IN DECIMAL IT IS $"
.CODE
MAIN PROC

MOV AX,@DATA
MOV DS ,AX

LEA DX,MSG1
MOV AH,9
INT 21H

MOV AH,1
INT 21H
MOV BH,AL

LEA DX,MSG2
MOV AH,9
INT 21H

MOV AH,2
MOV DL,'1'
INT 21H

SUB BH,11H
MOV AH,2
```

```
MOV DL,BH
INT 21H
MOV AH,4CH
INT 21H
MAIN ENDP
END MAIN
```

Exercise 11: A Program to display a 10*10 solid box of asterisk.
SOURCE CODE:
```
 .MODEL SMALL
 .STACK 100H
 .DATA
  AST DB  '**********',0DH,0AH,'$'
 .CODE
  MAIN PROC
  MOV AX, @DATA
  MOV DS, AX
    LEA DX, AST
    MOV AH, 9
    INT 21H
    INT 21H
    INT 21H
    INT 21H
    INT 21H
    INT 21H
    INT 21H
    INT 21H
    INT 21H
    INT 21H
    MOV AH, 4CH
    INT 21H
  MAIN ENDP
 END MAIN
```

Chapter 6

EXERCISE 8: Write a program to display a "?" , read two capital letters and display them on the next line in alphabetic order.

SOURCE CODE:
```
.MODEL SMALL
.STACK 100H
.DATA
MSG DB 0DH,0AH,'$'
.CODE
MAIN PROC

MOV AX,@DATA
MOV DS,AX

MOV AH,2
MOV DL,'?'
INT 21H

MOV AH,1
INT 21H
MOV BL,AL

MOV AH,1
INT 21H
MOV BH,AL

LEA DX,MSG
MOV AH,9
INT 21H

MOV AH,2
```

```
CMP BL,BH
JA BIG

MOV DL,BL
INT 21H

MOV DL,BH
INT 21H
JMP EXIT

BIG:
MOV DL,BH
INT 21H

MOV DL,BL
INT 21H
EXIT:
MOV AH,4CH
INT 21H
MAIN ENDP
END MAIN
```

Chapter-11

Exercise 8: Write a program (a)user input string (b) prints it forward and backword (c) decide it palindrome or not

Source Code:
```
.MODEL SMALL
.STACK 100H
.DATA
ST1 DB 'MADAMIAMADAM$'
ST2 DB 15 DUP(?),'$'
ST3 DB 0DH,0AH,'$'
ST4 DB 'PALINDROME$'
ST5 DB 'NOT PALINDROME$'
.CODE
MAIN PROC

MOV AX,@DATA
MOV DS,AX
MOV ES,AX

MOV BL,ST1

LEA DX,ST1
MOV AH,9
INT 21H

LEA DX,ST3
MOV AH,9
INT 21H

LEA SI,ST1+11
LEA DI,ST2
```

```
STD

MOV CX,12

FOR_LOOP:
MOVSB
ADD DI,2
LOOP FOR_LOOP

LEA DX,ST2
MOV AH,9
INT 21H

LEA DX,ST3
MOV AH,9
INT 21H

CMP BL,ST2
JE DISP

LEA DX,ST5
MOV AH,9
INT 21H
JMP EXIT
DISP:
LEA DX,ST4
MOV AH,9
INT 21H
EXIT:
MOV AH,4CH
INT 21H

MAIN ENDP
END MAIN
```