LAB 1

SUBJECT:

SECR2033-02 COMPUTER ORGANIZATION AND ARCHITECTURE

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Activity 1

Exercise 3.1:

What are the sequences of bytes (in hexadecimal) in storage.

```
MyData    DWORD   3740625, 2 DUP(2ABCD0Eh)
```

```
MyData    DWORD   3740625, 2 DUP(2ABCD0Eh)
```

Solution 3.1:

□ 3740625 is in decimal □ 003913D1h

Offset:	*Value:*
0000:	D1
0001:	13
0002:	39
0003:	00
0004:	0E
0005:	CD

Offset:	*Value:*
0006:	AB
0007:	02
0008:	0E
0009:	CD
000A:	AB
000B:	02

Activity 2

Exercise 3.2:

What are the sequences of bytes (in hexadecimal) in storage.

```
MyData2    WORD   2 DUP(4Fh),?,'B',25,500Dh
```

```
MyData2    WORD   2 DUP(4Fh),?,'B',25,500Dh
```

Solution 3.2:

- B = 42h
- 25_{10} = 19h

Offset:	*Value:*
0000:	4F
0001:	00
0002:	4F
0003:	00
0004:	
0005:	

Offset:	*Value:*
0006:	42
0007:	00
0008:	19
0009:	00
000A:	0D
000B:	50

Activity 3

Exercise 3.3:

You are given the following code snippets. Answer these questions (in Hex).

1. Duplicate template-lab as Lab1Ex3
2. Update main.asm with the code in the box and build project
3. Debug the code and display the 4 windows (registers, memory, watch, autos) to get the values below
4. Screenshot your VS2019 with the 4 windows while running debugging to put in lab report

- AH = 34H
- AX = 3400H
- BX = 9966H

```
.data
cth  BYTE 34H
cth2 BYTE 55H

val1 WORD 6677H
val2 WORD 8899H

.code
main PROC

MOV AX,0
MOV AH, cth
MOV BX,0
MOV BX, val1+1
exit
main ENDP
```

Screenshot for lab