Lab Activities:

1. Initialize 6 empty variable of mix type byte, word and double-word. Apply 3 align function having padding bits 2, 4, 2 in between the variables. Do this as a handwritten exercise and also verify answers using .masm.

2. Discuss the error and also correct the error.

```
.data
intArray WORD 0100h, 0200h, 0300h, 0400h, 0500h, 0600h
.code
main proc
mov esi,offset intArray
mov ax,[esi]
top:
inc esi
inc esi
mov ax,[esi]
loop top
```

3. Use following array declarations:

arrayB	BYTE	20h,40h,60h,80h
arrayW	WORD	200h, 300h, 400h
arrayD	DWORD	500h, 900h, 1100h

   For each array, add its 1st and last element using scale factors and display the result in a separate register.

4. Initialize an array:
   arr Word 100h, 200h, 400h, 600h

   Initialize four different pointer variables with each of the elements of this array. And display the values in register using these pointers.

5. Use loop instruction to display 100 number in decimal and display them in register.

6. Write a program that uses a loop to calculate the first ten numbers of Fibonacci sequence.

7. Use loop instruction to display hex values of alphabets ‘A-Z’ according to their respective ascii codes (use decimal code) and display them in register.

8. Use loop instruction to display decimal value till 15 and store this value in another array of size 15 and then display the stored array results in data register.