

COAL Lab 06

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Section: BCS-3J

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Task 1:

```
1 ; Sufiyaan Usmani
2 ; 21K-3195
3 ; BCS-3J
4 ; Task 1
5
6 INCLUDE Irvine32.inc
7 .data
8     msg BYTE "Generating 20 numbers fron 0 to 990:",0
9 .code
10    main PROC
11        mov eax, black + (green * 16)
12        call SetTextColor
13        call Clrscr
14        mov edx, OFFSET msg
15        call WriteString
16        call Crlf
17        mov dh, 0
18        mov dl, 0
19        call Crlf
20        call Randomize
21        mov ecx, 20
22    L1:
23        add dh, 1
24        add dl, 1
25        mov eax, 5
26        call Delay
27        mov eax, +991
28        call RandomRange
29        call Gotoxy
30        call WriteDec
31        call Crlf
32    LOOP L1
33    exit
34 main ENDP
35 END main
```

```
C:\WINDOWS\system32\cmd.exe
Generating 20 numbers fron 0 to 990:
949
800
367
413
294
894
483
189
659
163
962
169
73
169
875
356
649
135
393
91
Press any key to continue . . .
```

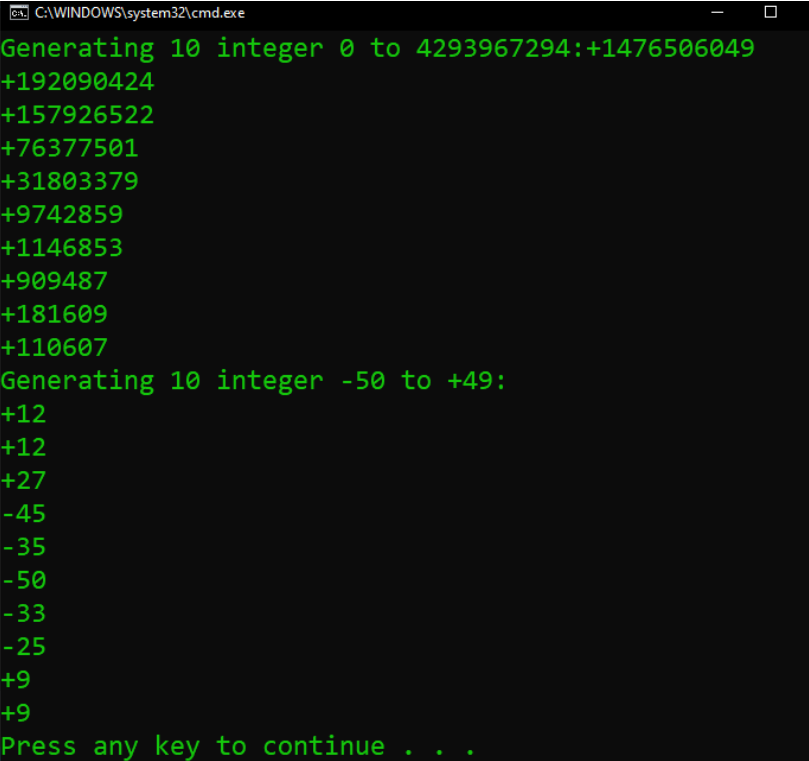
Task 2:

```
1 ; Sufiyaan Usmani
2 ; 21K-3195
3 ; BCS-3J
4 ; Task 2
5
6 INCLUDE Irvine32.inc
7
8 .data
9     val BYTE "!", 0
10 .code
11     main PROC
12         mov edx, OFFSET val
13         call Randomize
14         mov ecx, 100
15     L1:
16         call GetMaxXY
17         mov eax, GetMaxXY
18         call RandomRange
19         mov dl, al
20         call RandomRange
21         mov dh, al
22         call Gotoxy
23         mov edx, OFFSET val
24         call WriteString
25         mov eax, 100
26         call Delay
27         call Crlf
28     LOOP L1
29     call WriteString
30     exit
31 main ENDP
32 END main
```



Task 3:

```
1 INCLUDE Irvine32.inc
2
3 .data
4     val byte "Generating 10 integer 0 to 4293967294:",0
5     val2 byte "Generating 10 integer -50 to +49:",0
6 .code
7     main PROC
8         mov edx,OFFSET val
9         call WriteString
10        mov ecx,10
11        call Randomize
12        mov eax,+4294967294
13
14    L1:
15        call Randomrange
16        call WriteInt
17        call Crlf
18    LOOP L1
19    mov edx,OFFSET val2
20    call WriteString
21    call Crlf
22    mov ecx,10
23    mov eax,100
24    L2:
25        call RandomRange
26        sub eax,50
27        call WriteInt
28        call Crlf
29        mov eax,100
30    LOOP L2
31    exit
32 main ENDP
33 END main
```



Task 4:

```
1 ; Sufiyaan Usmani
2 ; 21K-3195
3 ; BCS-3J
4 ; Task 4
5
6 INCLUDE Irvine32.inc
7
8 BUFFER_SIZE = 501
9 .data
10 buffer BYTE BUFFER_SIZE DUP(?)
11 filename BYTE "mytask4.txt",0
12 fileHandle HANDLE ?
13 stringLength DWORD ?
14 bytesWritten DWORD ?
15 str2 BYTE "Bytes written to file [mytask4.txt]: ",0
16 str3 BYTE "Enter up to 500 characters and press"
17     BYTE "[Enter]: ", 0dh, 0ah, 0
18 .code
19 main PROC
20     mov edx, OFFSET filename
21     call CreateOutputFile
22     mov fileHandle, eax
23     mov edx, OFFSET str3 ; "Enter upto ... "
24     call WriteString
25     mov ecx, BUFFER_SIZE ; Input a string
26     mov edx, OFFSET buffer
27     call ReadString
28     mov stringLength, eax
29     mov eax, fileHandle
30     mov edx, OFFSET buffer
31     mov ecx, stringLength
32     call WriteToFile
33     mov bytesWritten, eax
34     call CloseFile
35     mov edx, OFFSET str2
36     call WriteString
37     mov eax, bytesWritten
38     call WriteDec
39     call Crlf
40     exit
41 main ENDP
42 END main
```

C:\WINDOWS\system32\cmd.exe

```
Enter up to 500 characters and press[Enter]:
Sufiyaan Usmani (21K-3195). COAL Lab 6
Bytes written to file [mytask4.txt]: 38
Press any key to continue . . .
```

mytask4.txt - Notepad

File Edit Format View Help

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Ln 1, Col 1

100%

Windows (CRLF)

UTF-8