

## COAL LAB TASKS (LAB#08)

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**Section: H**

### **TASK#01:**

TITLE My Program(test.)

INCLUDE Irvine32.inc

.code

main PROC

mov ecx,18

mov eax, black+(green\*16)

call SetTextColor

mov dx,0

L1:

call gotoxy

call Random32

call writeint

mov eax, 5

call delay

inc dh

add dl,2

LOOP L1

main ENDP

END main

```

1  TITLE My Program(test.)
2  INCLUDE Irvine32.inc
3
4  .code
5  main PROC
6  mov ecx,18
7  mov eax, black+(green*16)
8  call SetTextColor
9  mov dx,0
10 L1:
11 call gotoxy
12 call Random32
13 call writeint
14 mov eax, 5
15 call delay
16 inc dh
17 add dl,2
18 LOOP L1
19 main ENDP
20 END main

```

Microsoft Visual Studio Debug Console

```

-1073731102
-2084035594
+974700167
+367494257
-2067078689
+926772240
+506254858
+1769123448
-2006363623
+736071794
+1108756916
-43126519
-858066508
+1606532016
-1499010615
-780014759
+1342944021
-743528802
C:\Users\Saman Khan\Documents\Desktop\test\Project1coal\Debug\Project1
45.
Press any key to close this window . . .

```

## **TASK#02:**

```

TITLE My Program(test)
INCLUDE Irvine32.inc

```

```

.data
str1 BYTE "Enter an integer : ",0
str2 BYTE "Decimal : ",0
str3 BYTE "Binary : ",0
str4 BYTE "Hexadecimal : ",0

```

```

.code
main PROC
mov edx, OFFSET str1
call WriteString
call readint
mov edx, OFFSET str2
call WriteString
call writdec
call crlf
mov edx, OFFSET str3
call WriteString
call writehex
call crlf
mov edx, OFFSET str4
call WriteString

```

```

call writebin
call crlf
call DumpRegs
main ENDP
END main

```

```

1  TITLE My Program(test)
2  INCLUDE Irvine32.inc
3
4  .data
5  str1 BYTE "Enter an integer : ",0
6  str2 BYTE "Decimal : ",0
7  str3 BYTE "Binary : ",0
8  str4 BYTE "Hexadecimal : ",0
9
10 .code
11 main PROC
12 mov edx, OFFSET str1
13 call WriteString
14 call readint
15 mov edx, OFFSET str2
16 call WriteString
17 call writedec
18 call crlf
19 mov edx, OFFSET str3
20 call WriteString
21 call writehex
22 call crlf
23 mov edx, OFFSET str4
24 call WriteString
25 call writebin
26 call crlf
27 call DumpRegs
28 main ENDP
29 END main

```

Microsoft Visual Studio Debug Console

```

Enter an integer : 66
Decimal : 66
Binary : 00000042
Hexadecimal : 0000 0000 0000 0000 0000 0000 0100 0010

EAX=00000042 EBX=00ABE000 ECX=0005100A EDX=00056029
ESI=0005100A EDI=0005100A EBP=00CFFCDC ESP=00CFFCD0
EIP=000536B0 EFL=00000202 CF=0 SF=0 ZF=0 OF=0 AF=0 PF=0

C:\Users\Saman Khan\Documents\Desktop\test\Project1coal\Debug\Project1coal.exe:645.
Press any key to close this window . . .

```

### **TASK#03:**

```

TITLE My Program(test)
INCLUDE Irvine32.inc

```

```

.data
empName DWORD 20 dup(?)
empID DWORD 10 dup(?)
empDOB DWORD 10 dup(?)
salary DWORD ?
MSalary DWORD ?
tax DWORD ?
str1 BYTE "Enter employee ID : ",0
str2 BYTE "Enter employee name : ",0
str3 BYTE "Enter employee date of birth : ",0
str4 BYTE "Enter employee annual salary : ",0
str5 BYTE "Employee monthly salary is : Rs.",0
str6 BYTE "The tax on monthly salary is : Rs.",0

```

```
.code
main PROC
mov edx, OFFSET str1
call WriteString
mov edx, OFFSET empID
mov ecx, SIZEOF empID
call ReadString
mov empID, eax
call crlf
mov edx, OFFSET str2
call WriteString
mov edx, OFFSET empName
mov ecx, SIZEOF empName
call ReadString
mov empName, eax
call crlf
mov edx, OFFSET str3
call WriteString
mov edx, OFFSET empDOB
mov ecx, SIZEOF empDOB
call readstring
mov empDOB, eax
call crlf
mov edx, OFFSET str4
call WriteString
call readint
mov salary, eax
call crlf
mov edx, 0
mov ebx, 12d
div ebx
mov MSalary, eax
mov ebx, 2
div ebx
mov tax, eax
mov edx, OFFSET str6
call WriteString
call writedec
call crlf
call crlf
mov edx, OFFSET str5
call WriteString
mov eax, MSalary
call writedec
main ENDP
END main
```

```

empID DWORD 10 dup(?)
empDOB DWORD 10 dup(?)
salary DWORD ?
MSalary DWORD ?
tax DWORD ?
str1 BYTE "Enter employee ID : ",0
str2 BYTE "Enter employee name : ",0
str3 BYTE "Enter employee date of birth : ",0
str4 BYTE "Enter employee annual salary : ",0
str5 BYTE "Employee monthly salary is : Rs.",0
str6 BYTE "The tax on monthly salary is : Rs.",0

.code
main PROC
mov edx, OFFSET str1
call WriteString
mov edx, OFFSET empID
mov ecx, SIZEOF empID
call ReadString
mov empID, eax
call crlf
mov edx, OFFSET str2
call WriteString
mov edx, OFFSET empName
mov ecx, SIZEOF empName
call ReadString
mov empName, eax
call crlf
mov edx, OFFSET str3
call WriteString
mov edx, OFFSET empDOB
mov ecx, SIZEOF empDOB
call ReadString

```

```

Microsoft Visual Studio Debug Console

Enter employee ID : 19K-0354

Enter employee name : Saman Khan

Enter employee date of birth : 22-07-2000

Enter employee annual salary : 120000

The tax on monthly salary is : Rs.5000

Employee monthly salary is : Rs.10000
C:\Users\Saman Khan\Documents\Desktop\test\Project1coal\Debug\Project1coal.exe
645.
Press any key to close this window . . .

```

#### **TASK#04:**

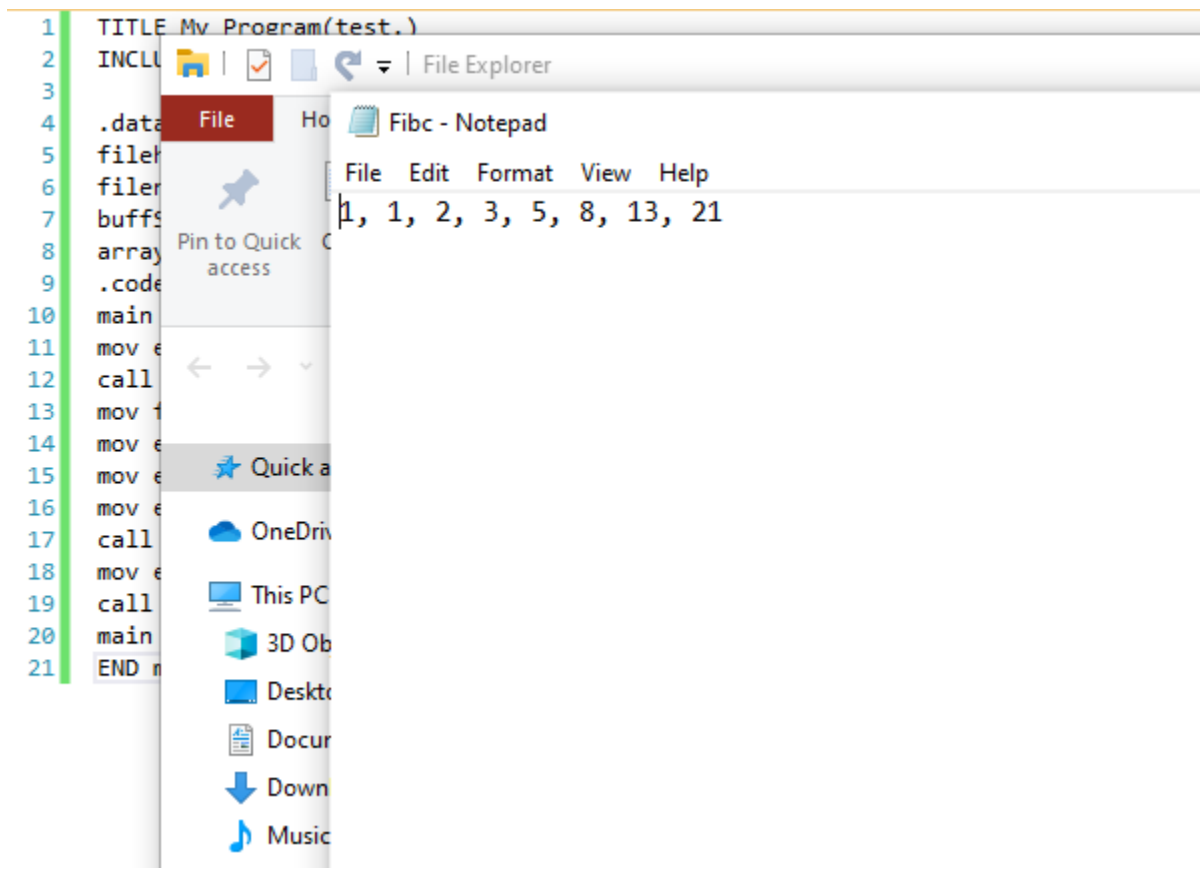
TITLE My Program(test.)

INCLUDE Irvine32.inc

```

.data
filehandle DWORD ?
filename BYTE "Fibc.txt", 0
buffSize = 30
array BYTE '1','1','2','3','5','8','13','21',0
.code
main PROC
mov edx, offset filename
call CreateOutputFile
mov filehandle, eax
mov eax, filehandle
mov ecx, buffSize
mov edx, OFFSET array
call WriteToFile
mov eax, filehandle
call CloseFile
main ENDP
END main

```



### **TASK#05:**

TITLE My Program(test.)  
INCLUDE Irvine32.inc

```
.data  
var BYTE '*'  
var2 DWORD 1  
.code  
main PROC  
mov ecx,5  
mov dh,0  
mov dl,5  
mov ebx, 0  
L1:  
push ecx  
inc ebx  
mov ecx, ebx  
call gotoxy  
L2:  
movzx eax, var  
call writechar  
LOOP L2
```

```
dec dl
inc dh
pop ecx
LOOP L1
```

```
main ENDP
END main
```

```
1  TITLE My Program(test.)
2  INCLUDE Irvine32.inc
3
4  .data
5  var BYTE '*'
6  var2 DWORD 1
7  .code
8  main PROC
9  mov ecx,5
10 mov dh,0
11 mov dl,5
12 mov ebx, 0
13 L1:
14 push ecx
15 inc ebx
16 mov ecx, ebx
17 call gotoxy
18 L2:
19 movzx eax, var
20 call writechar
21 LOOP L2
22 dec dl
23 inc dh
24 pop ecx
25 LOOP L1
26
27 main ENDP
28 END main
```

Microsoft Visual Studio Debug Console

```
*
**
***
****
*****
C:\Users\Saman Khan\Documents\Desktop\test\Project1coal\Debug\Project1coal.exe
645.
Press any key to close this window . . .
```