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Roll No**: 20P-0648**

Lab-10

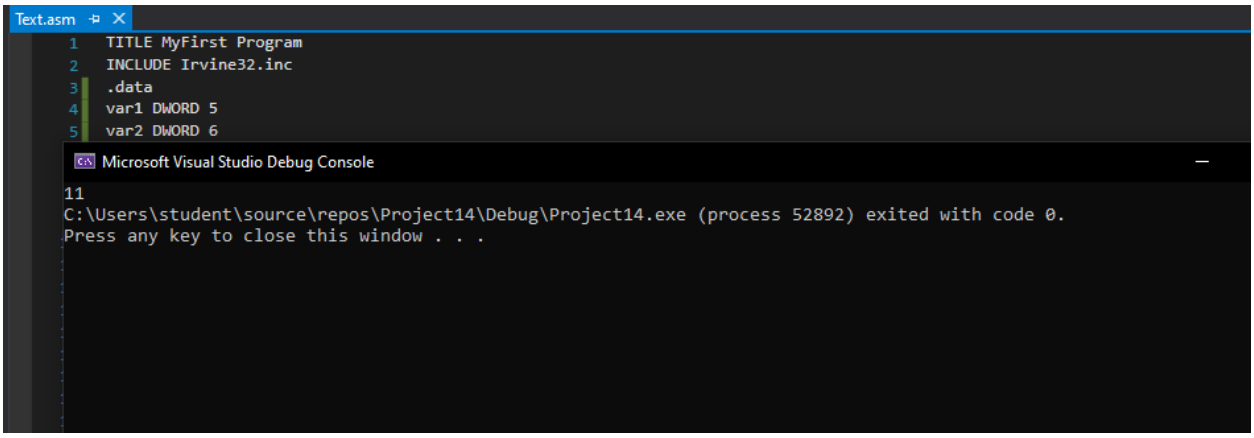
Examples

Example 1 Code

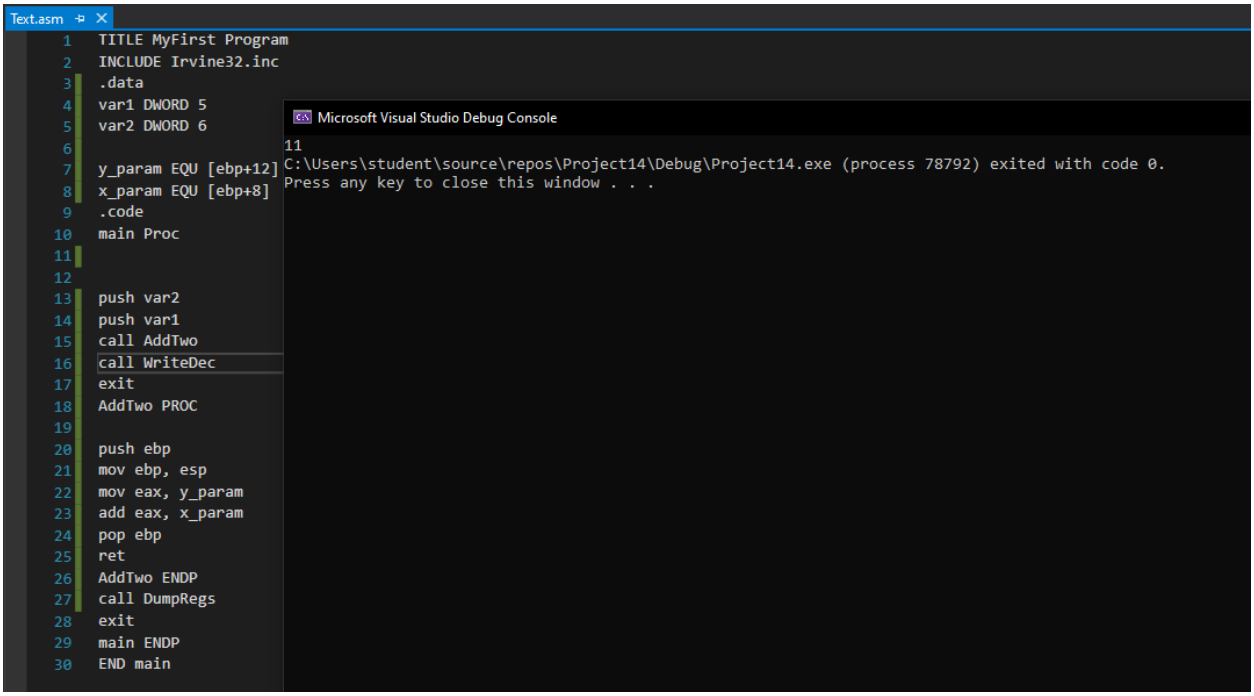
Text.asm

```
1   TITLE MyFirst Program
2   INCLUDE Irvine32.inc
3   .data
4   var1 DWORD 5
5   var2 DWORD 6
6
7   .code
8   main Proc
9
10
11  push var2
12  push var1
13  call AddTwo
14  exit
15  AddTwo PROC
16
17  push ebp
18  mov ebp, esp
19  mov eax, [ebp+12]
20  add eax, [ebp+8]
21  pop ebp
22  ret
23  AddTwo ENDP
24  call DumpRegs
25  exit
26  main ENDP
27  END main
```

Output



Example 2 with output



Example 3 code

Text.asm

```
1  TITLE MyFirst Program
2  INCLUDE Irvine32.inc
3  .data
4  count = 10
5  arr WORD  count DUP (?)
6  .code
7  main Proc
8
9  push OFFSET arr
10 push count
11 call ArrayFill
12 exit
13
14 ArrayFill PROC
15 push ebp
16 mov ebp, esp
17 pushad
18 mov esi, [ebp+12]
19 mov ecx, [ebp+8]
20 cmp ecx, 0
21 je L2
22
23 L1:
24     mov eax, 100h
25     call RandomRange
26     mov [esi], ax
27     add esi, TYPE WORD
28     loop L1
29
30 L2:
31     popad
32     pop ebp
33     ret 8
34 ArrayFill ENDP
35 call DumpRegs
36 exit
37 main ENDP
38 END main
```

Example 3 output

Text.asm

```
1  TITLE MyFirst Program
2  INCLUDE Irvine32.inc
3  .data
4  count = 10
5  arr WORD  count DUP (?)
6  .code
7  main Proc
8
9  push OFFSET arr
10 push count
11 call ArrayFill
12 mov edx, OFFSET arr
13 mov ecx, count
14 mov esi, 0
15 L3:
16     movsx eax, arr[esi]
17     call writeDec
18     call crlf
19     add esi, 2
20     Loop L3
21 exit
22
23 ArrayFill PROC
24 push ebp
25 mov ebp, esp
26 pushad
27 mov esi, [ebp+12]
28 mov ecx, [ebp+8]
29 cmp ecx, 0
30 je L2
31
32 L1:
33     mov eax, 100h
34     call RandomRange
35     mov [esi], ax
36     add esi, TYPE WORD
37     loop L1
38
```

Microsoft Visual Studio Debug Console

```
226
246
135
113
223
16
10
120
25
114

C:\Users\student\source\repos\Project14\Debug\Project14.exe (process 67
Press any key to close this window . . .
```

Example 4

Text.asm

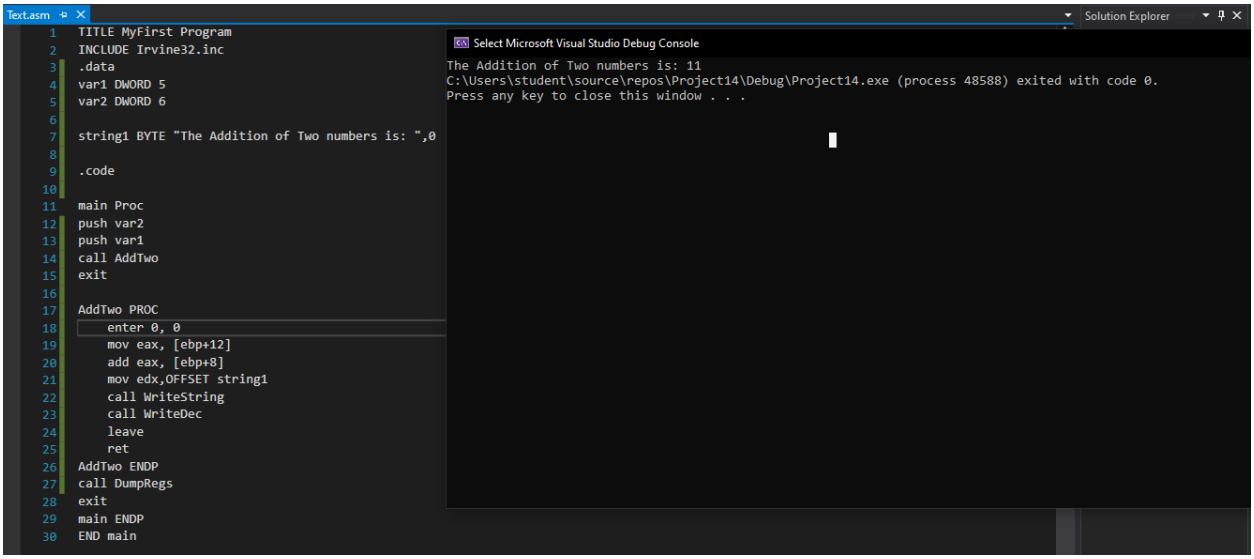
```
1   TITLE MyFirst Program
2   INCLUDE Irvine32.inc
3   .data
4
5   .code
6   main Proc
7   call makeArray
8
9   exit
10
11  makeArray PROC
12      push ebp
13      mov ebp, esp
14      sub esp, 32
15      lea esi, [ebp-30]
16      mov ecx, 30
17
18      L1:
19          mov BYTE PTR [esi],'*'
20          inc esi
21          loop L1
22          add esp, 32
23          pop ebp
24          ret
25      makeArray ENDP
26  call DumpRegs
27  exit
28  main ENDP
29  END main
```

Example 5

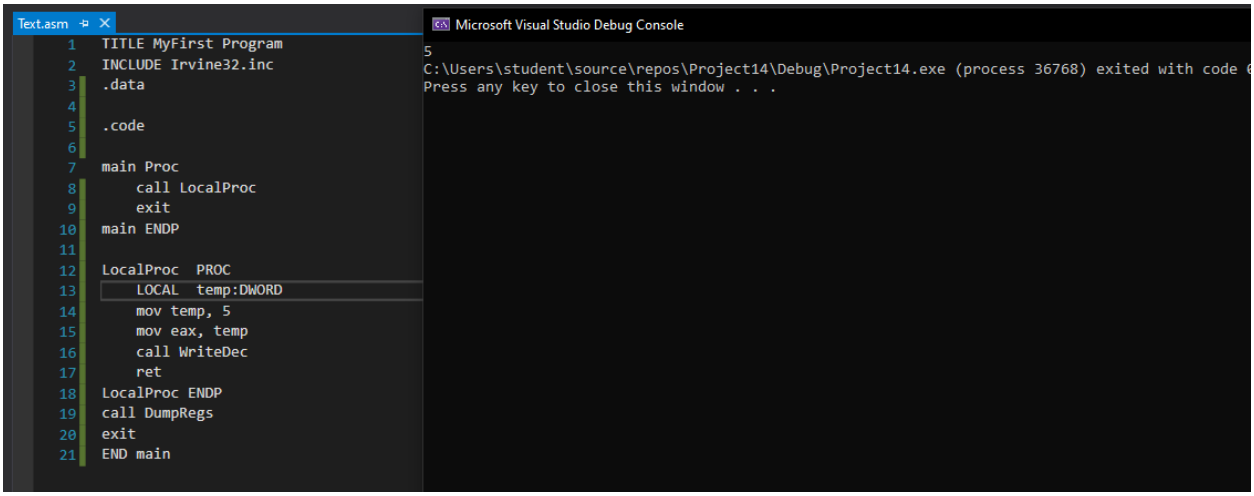
Text.asm

```
1   TITLE MyFirst Program
2   INCLUDE Irvine32.inc
3   .data
4
5   .code
6   main Proc
7   call MySub
8
9   exit
10
11  MySub PROC
12      push ebp
13      mov ebp, esp
14      sub esp, 8
15      mov DWORD   PTR [ebp-4], 10  ; first value
16      mov DWORD   PTR [ebp-8], 20 ; second value
17      mov esp, ebp
18      pop ebp
19      ret
20  MySub ENDP
21  call DumpRegs
22  exit
23  main ENDP
24  END main
```

Example 6 with output



Example 7 with output



Example 8 with output