

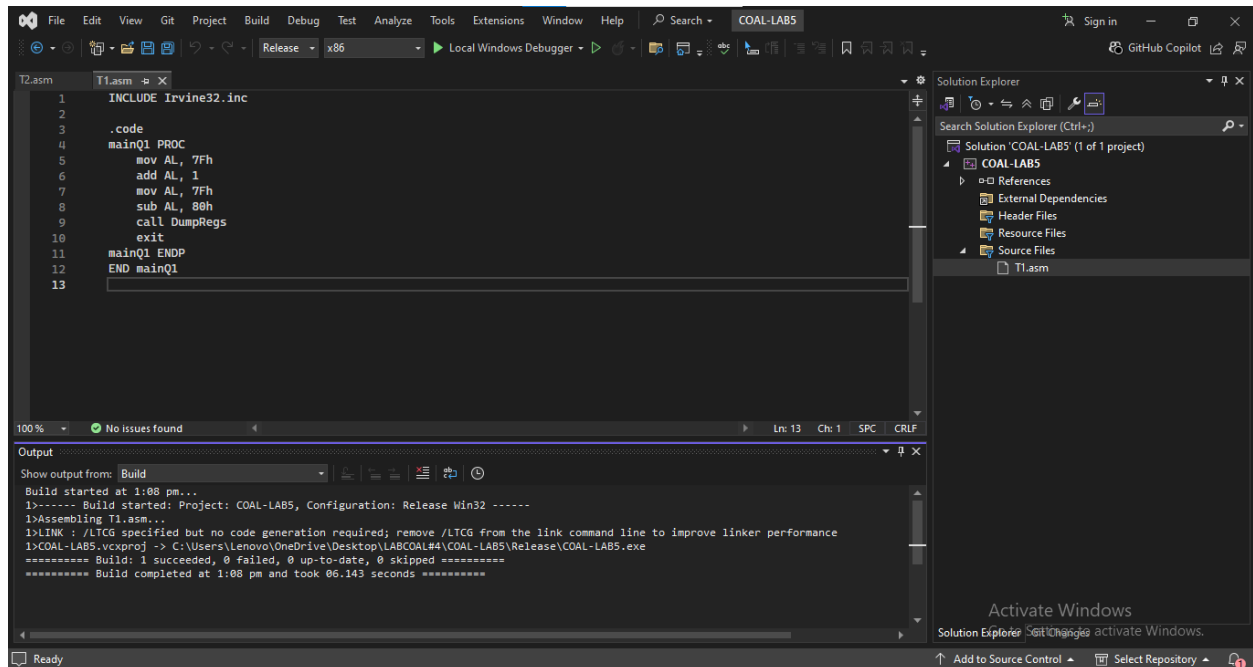
# COAL LAB# 5

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## **Task 1:**



The screenshot shows the Visual Studio IDE with the project 'COAL-LAB5'. The assembly code in `T1.asm` is as follows:

```
1  INCLUDE Irvine32.inc
2
3  .code
4  main01 PROC
5      mov AL, 7Fh
6      add AL, 1
7      mov AL, 7Fh
8      sub AL, 80h
9      call DumpRegs
10     exit
11  main01 ENDP
12  END main01
13
```

The Output window shows the build process:

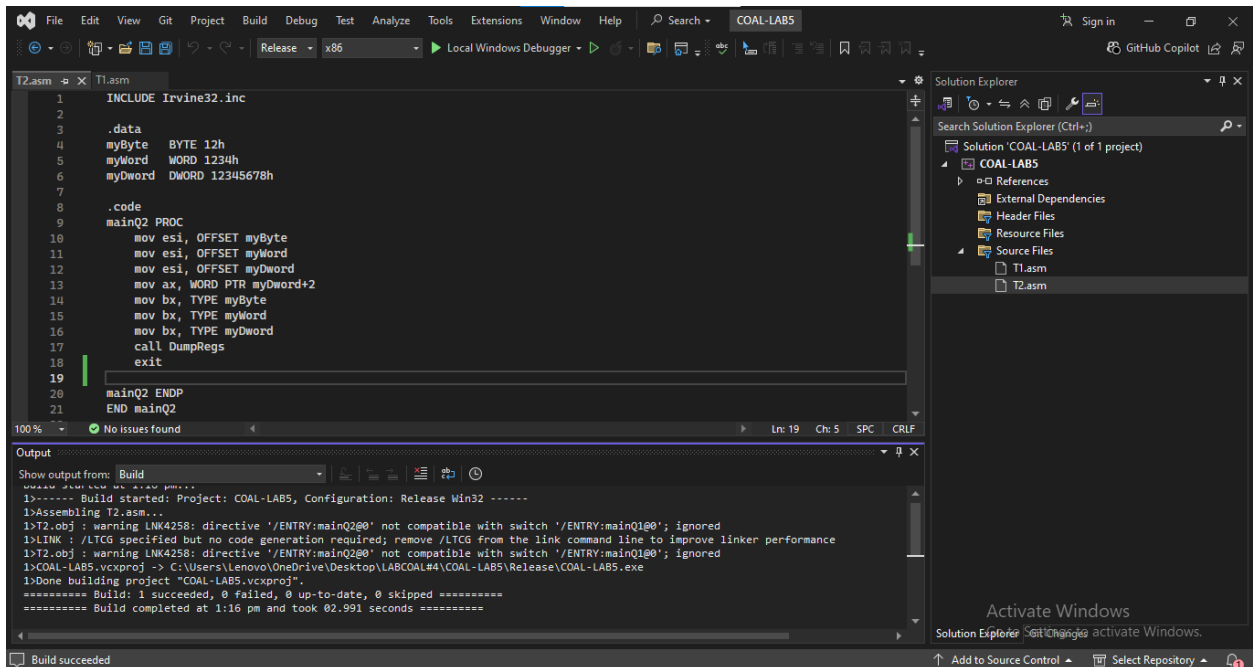
```
Build started at 1:08 pm...
1>----- Build started: Project: COAL-LAB5, Configuration: Release Win32 -----
1>Assembling T1.asm...
1>LINK : /LTCG specified but no code generation required; remove /LTCG from the link command line to improve linker performance
1>COAL-LAB5.vcxproj -> C:\Users\Lenovo\OneDrive\Desktop\LABCOAL#4\COAL-LAB5\Release\COAL-LAB5.exe
1>----- Build: 1 succeeded, 0 failed, 0 up-to-date, 0 skipped -----
1>----- Build completed at 1:08 pm and took 06.143 seconds -----
```

## **Output:**

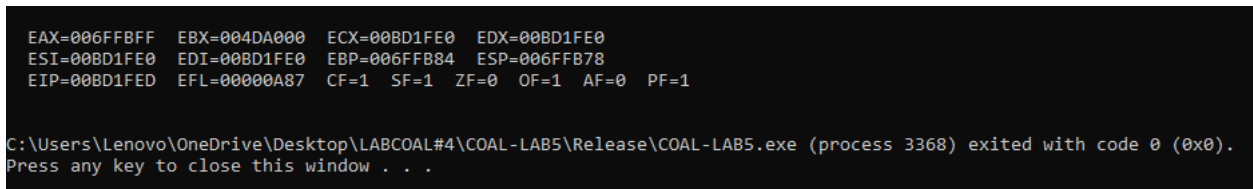
```
EAX=008FFEFF EBX=0079A000 ECX=00521FE0 EDX=00521FE0
ESI=00521FE0 EDI=00521FE0 EBP=008FFE08 ESP=008FFDFC
EIP=00521FED EFL=00000A87 CF=1 SF=1 ZF=0 OF=1 AF=0 PF=1
```

C:\Users\Lenovo\OneDrive\Desktop\LABCOAL#4\COAL-LAB5\Release\COAL-LAB5.exe (process 5876) exited with code 0 (0x0).  
Press any key to close this window . . .

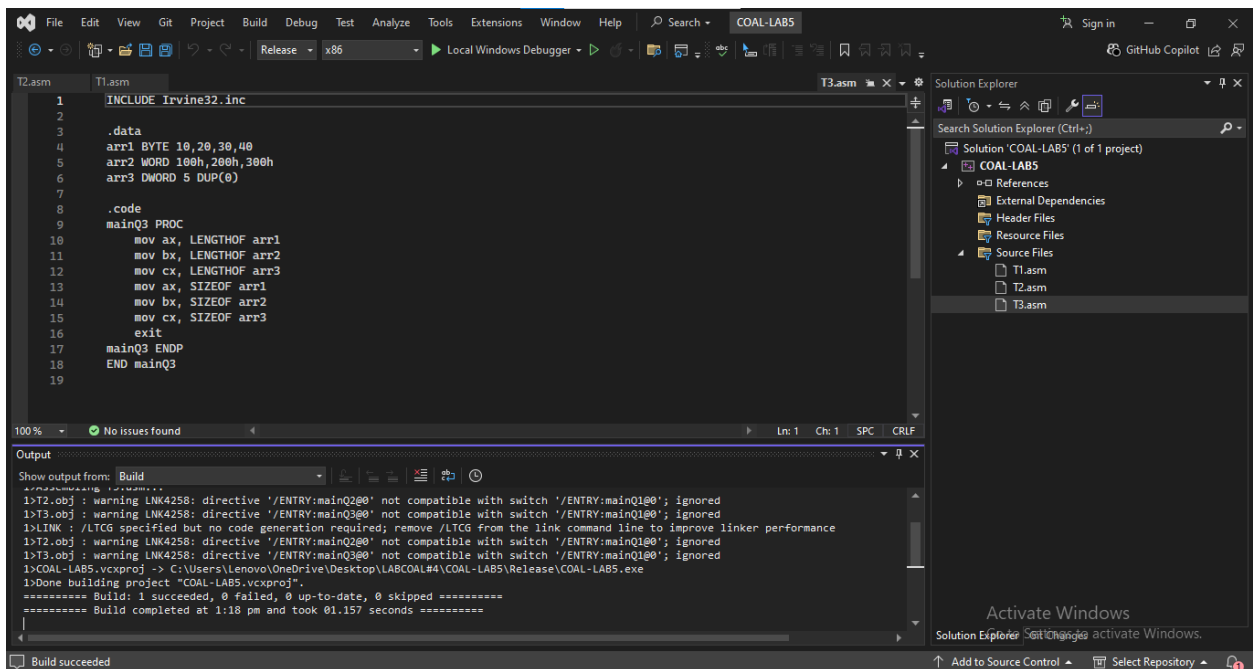
## **Task 2:**



## Output:



## Task 3:

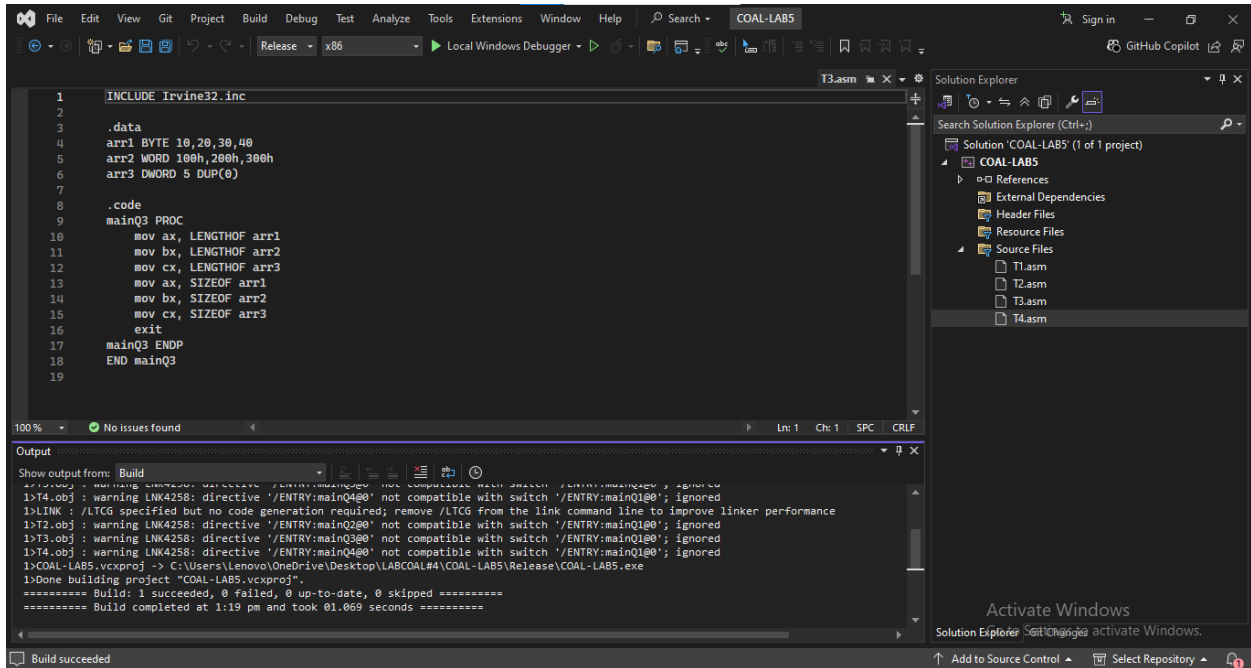


## Output:

```
EAX=00EFFFDF EBX=00C95000 ECX=000E1FE0 EDX=000E1FE0  
ESI=000E1FE0 EDI=000E1FE0 EBP=00EFFF8C ESP=00EFFF80  
EIP=000E1FED EFL=00000A87 CF=1 SF=1 ZF=0 OF=1 AF=0 PF=1
```

C:\Users\Lenovo\OneDrive\Desktop\LABCOAL#4\COAL-LAB5\Release\COAL-LAB5.exe (process 11060) exited with code 0 (0x0).  
Press any key to close this window . . .

#### Task 4:

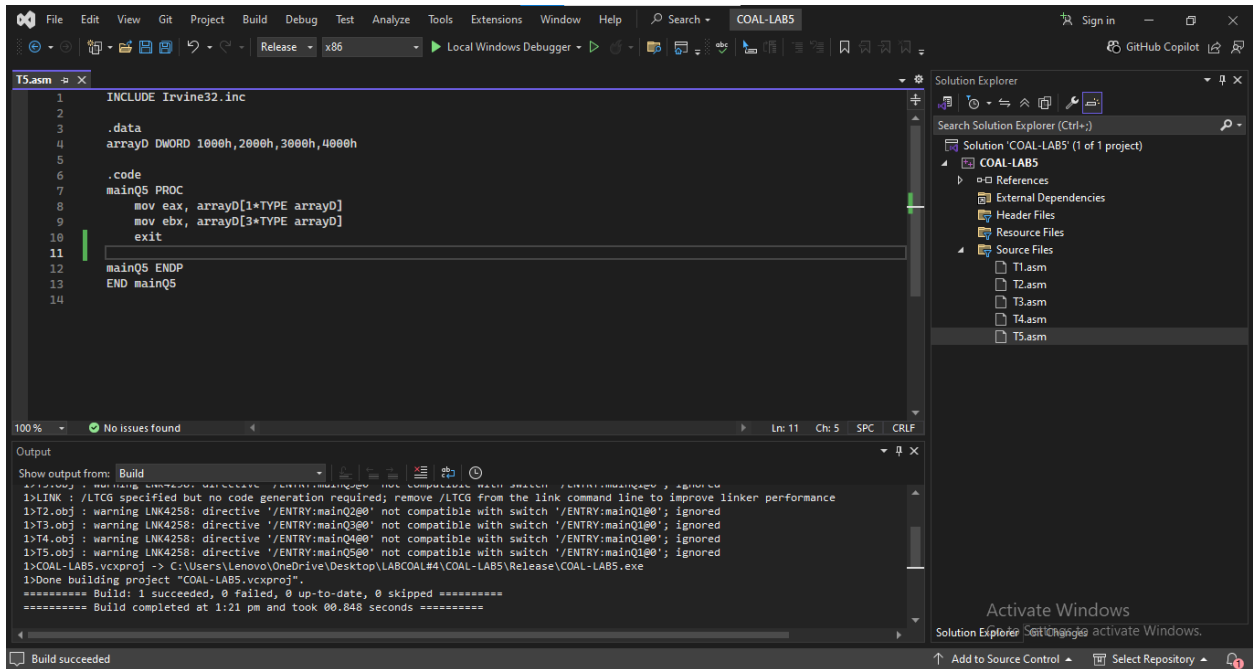


#### Output:

```
EAX=008FF9FF EBX=0068B000 ECX=009A1FE0 EDX=009A1FE0  
ESI=009A1FE0 EDI=009A1FE0 EBP=008FF94C ESP=008FF940  
EIP=009A1FED EFL=00000A87 CF=1 SF=1 ZF=0 OF=1 AF=0 PF=1
```

C:\Users\Lenovo\OneDrive\Desktop\LABCOAL#4\COAL-LAB5\Release\COAL-LAB5.exe (process 11404) exited with code 0 (0x0).  
Press any key to close this window . . .

#### Task 5:



## Output:

```
EAX=0093FEFF  EBX=007CC000  ECX=004E1FE0  EDX=004E1FE0
ESI=004E1FE0  EDI=004E1FE0  EBP=0093FE04  ESP=0093FDF8
EIP=004E1FED  EFL=00000A87  CF=1  SF=1  ZF=0  OF=1  AF=0  PF=1
```

C:\Users\Lenovo\OneDrive\Desktop\LABCOAL#4\COAL-LAB5\Release\COAL-LAB5.exe (process 6924) exited with code 0 (0x0).  
Press any key to close this window . . .