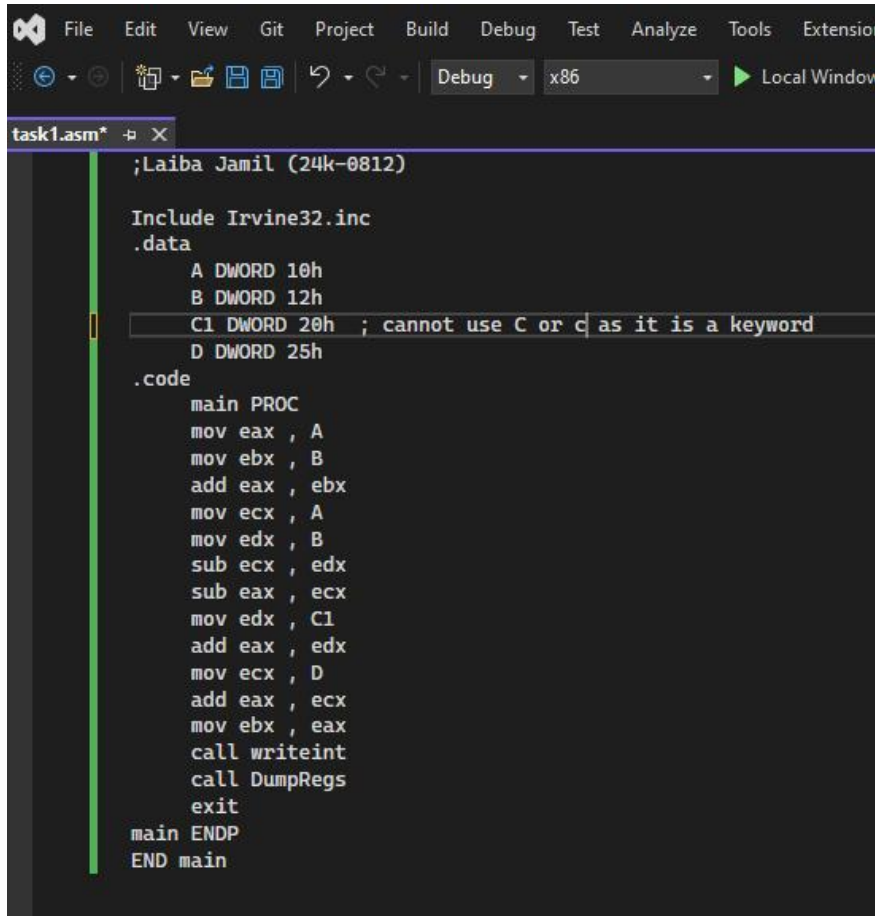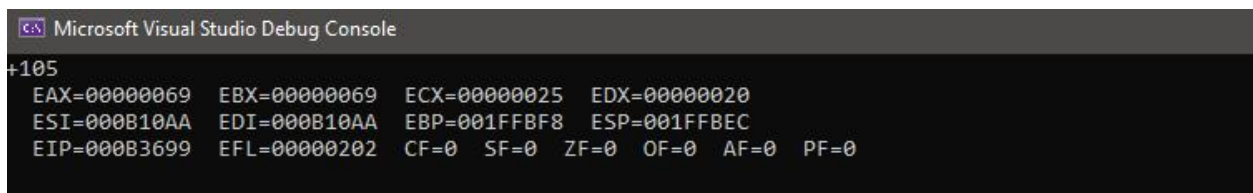# COAL HOME TASK 3A:

Question 1:


```
;Laiba Jamil (24k-0812)

Include Irvine32.inc
.data
    A DWORD 10h
    B DWORD 12h
    C1 DWORD 20h   ; cannot use C or c as it is a keyword
    D DWORD 25h
.code
    main PROC
    mov eax , A
    mov ebx , B
    add eax , ebx
    mov ecx , A
    mov edx , B
    sub ecx , edx
    sub eax , ecx
    mov edx , C1
    add eax , edx
    mov ecx , D
    add eax , ecx
    mov ebx , eax
    call writeint
    call DumpRegs
    exit
main ENDP
END main
```
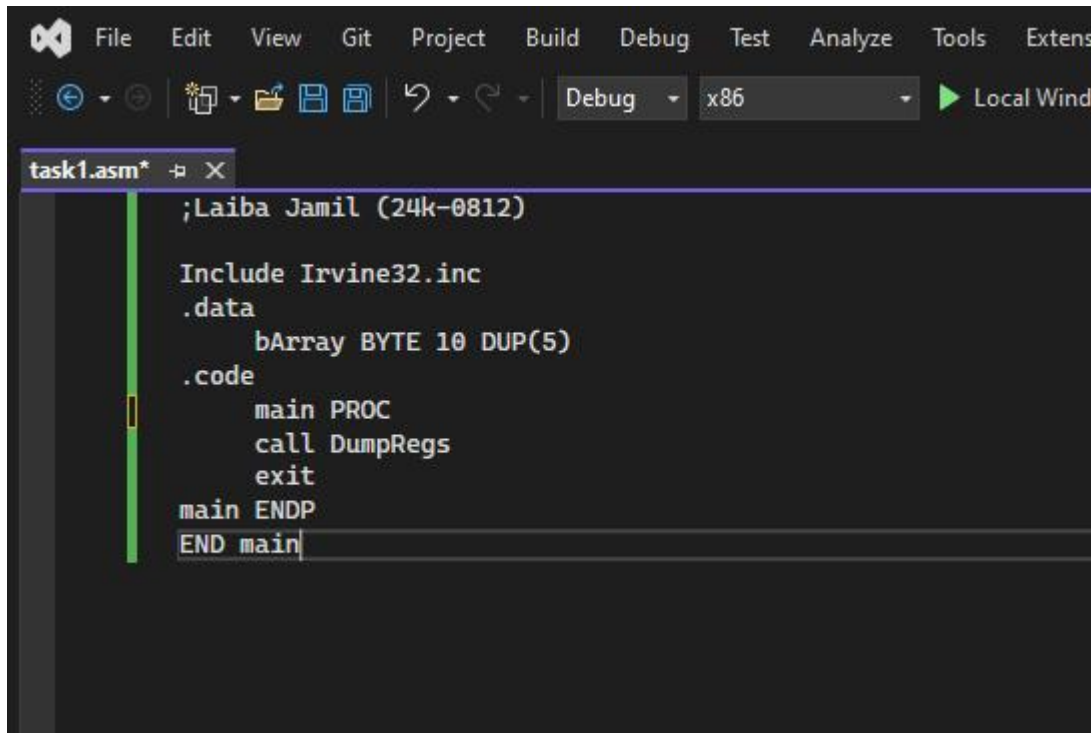


```
Microsoft Visual Studio Debug Console
+105
 EAX=00000069   EBX=00000069   ECX=00000025   EDX=00000020
 ESI=000B10AA   EDI=000B10AA   EBP=001FFBF8   ESP=001FFBEC
 EIP=000B3699   EFL=00000202   CF=0   SF=0   ZF=0   OF=0   AF=0   PF=0
```
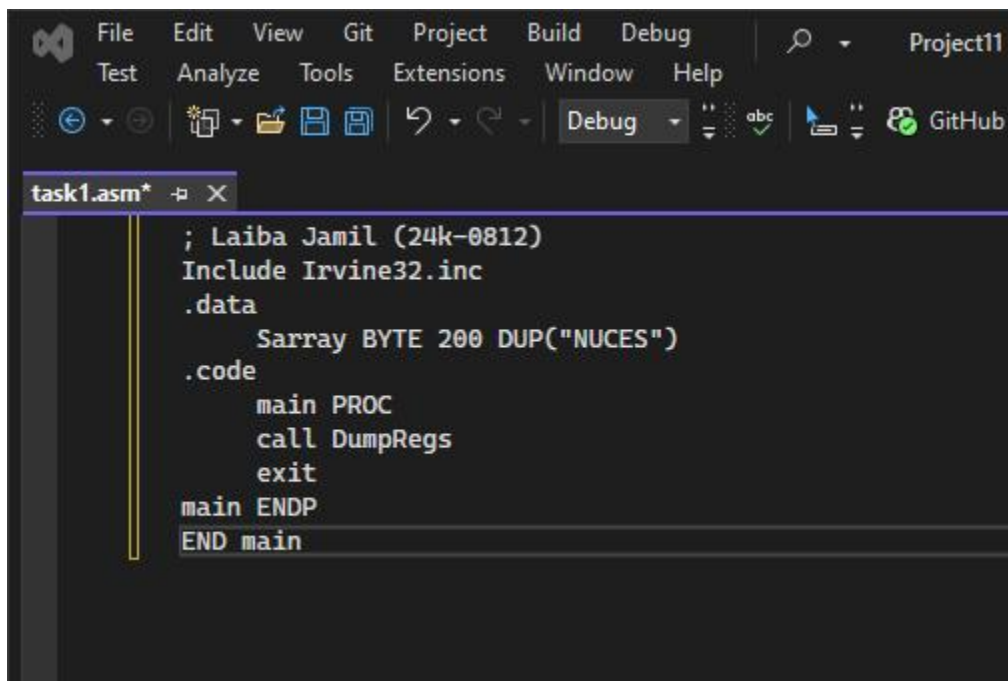
Question 2:

```asm
;Laiba Jamil (24k-0812)

Include Irvine32.inc
.data
    bArray BYTE 10 DUP(5)
.code
    main PROC
    call DumpRegs
    exit
main ENDP
END main
```
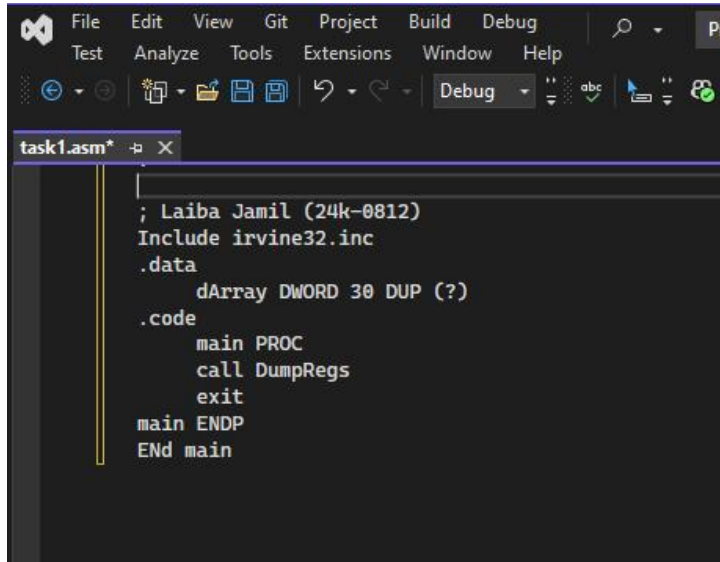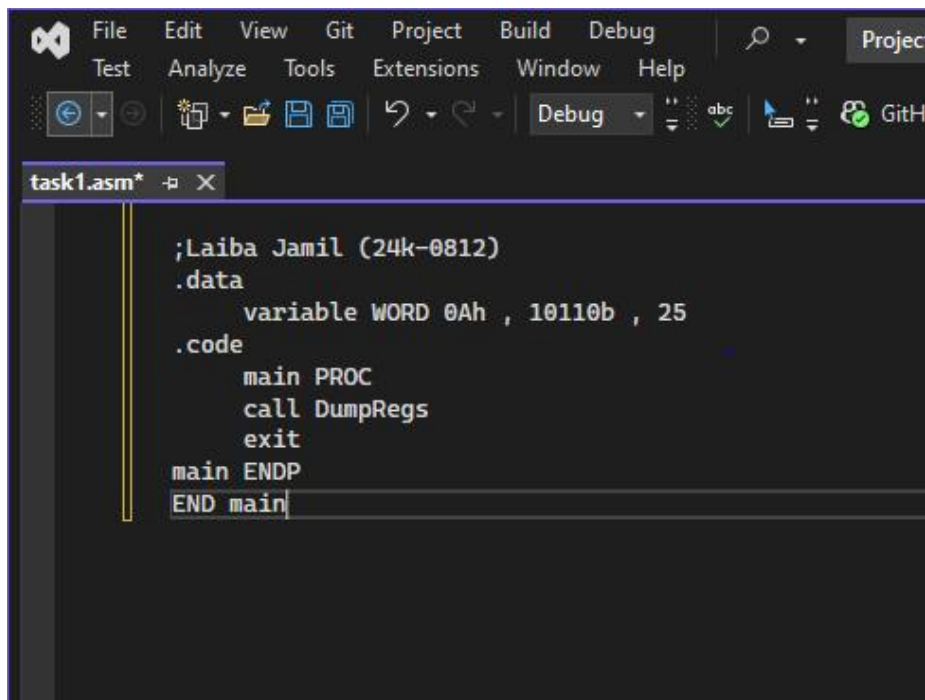
Question 3:

```asm
; Laiba Jamil (24k-0812)
Include Irvine32.inc
.data
    Sarray BYTE 200 DUP("NUCES")
.code
    main PROC
    call DumpRegs
    exit
main ENDP
END main
```
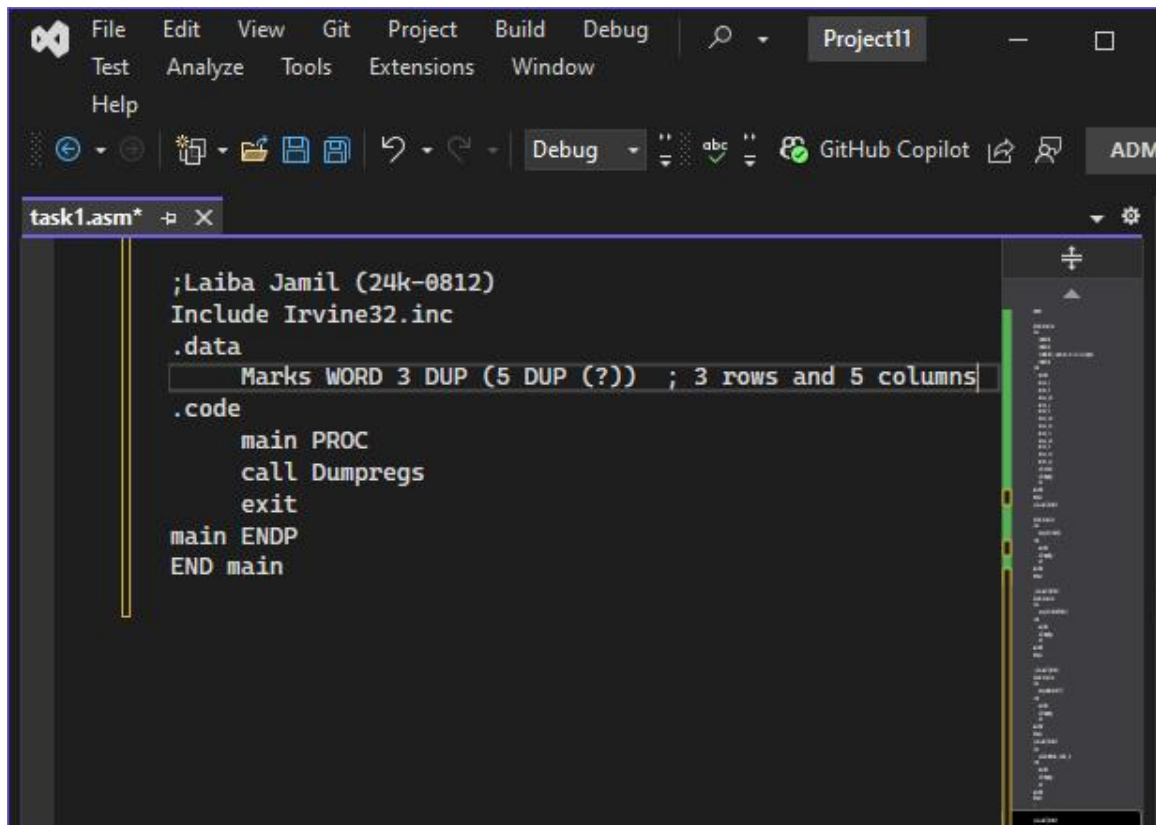
Question 4:

```asm
; Laiba Jamil (24k-0812)
Include irvine32.inc
.data
    dArray DWORD 30 DUP (?)
.code
    main PROC
    call DumpRegs
    exit
main ENDP
ENd main
```
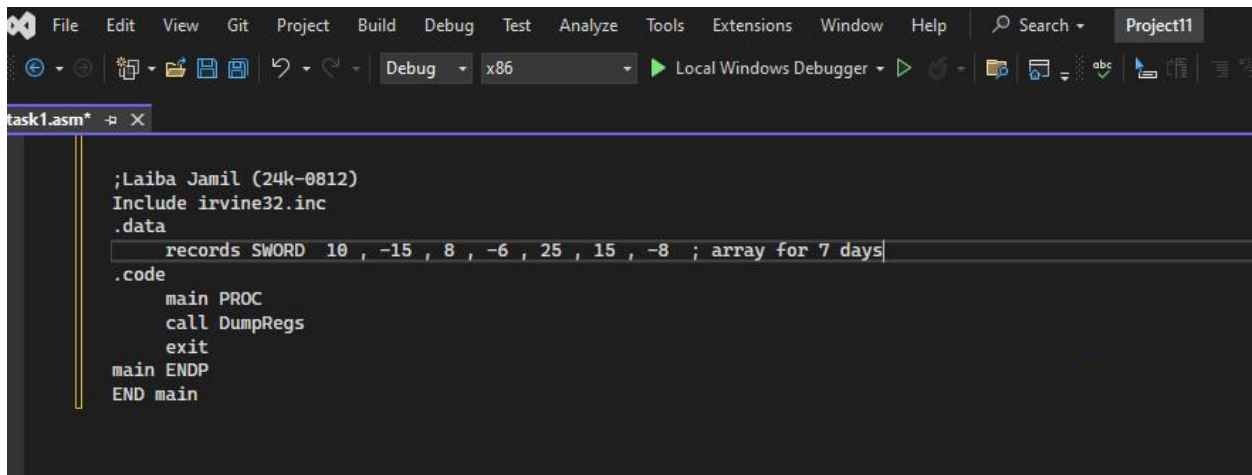
Question 5:

```asm
;Laiba Jamil (24k-0812)
.data
    variable WORD 0Ah , 10110b , 25
.code
    main PROC
    call DumpRegs
    exit
main ENDP
END main
```

Question 6:

```asm
;Laiba Jamil (24k-0812)
Include Irvine32.inc
.data
    Marks WORD 3 DUP (5 DUP (?))   ; 3 rows and 5 columns
.code
    main PROC
    call Dumpregs
    exit
main ENDP
END main
```
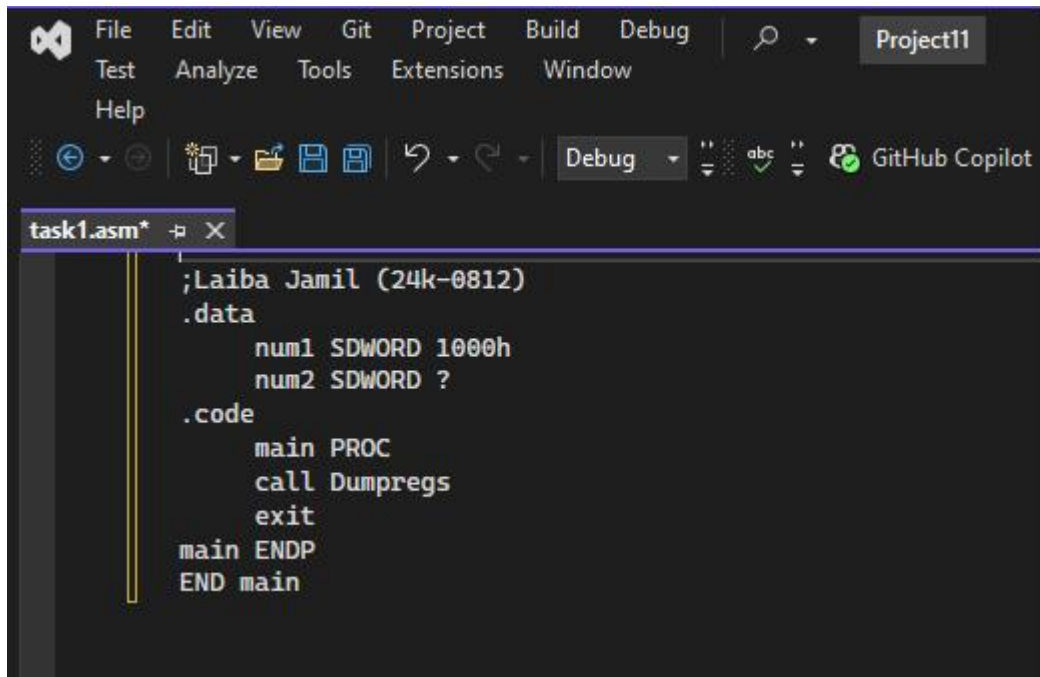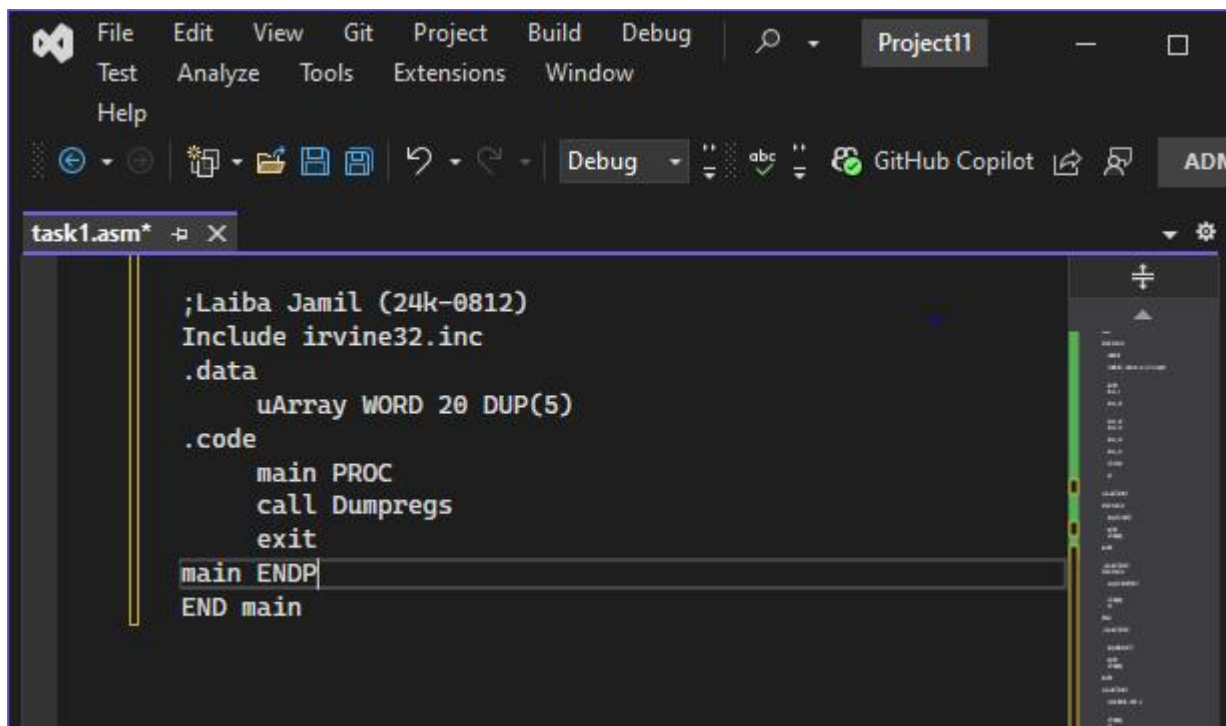
Question 7:

```asm
;Laiba Jamil (24k-0812)
Include irvine32.inc
.data
    records SWORD  10 , -15 , 8 , -6 , 25 , 15 , -8  ; array for 7 days
.code
    main PROC
    call DumpRegs
    exit
main ENDP
END main
```

Question 8:

```
;Laiba Jamil (24k-0812)
.data
    num1 SDWORD 1000h
    num2 SDWORD ?
.code
    main PROC
    call Dumpregs
    exit
main ENDP
END main
```

Question 9:

```
;Laiba Jamil (24k-0812)
Include irvine32.inc
.data
    uArray WORD 20 DUP(5)
.code
    main PROC
    call Dumpregs
    exit
main ENDP
END main
```

Question 10:

```
;Laiba Jamil (24-0812)
Include irvine32.inc
.data
    msg BYTE ?
    var BYTE "COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE",0
.code
    main PROC
    call Dumpregs
    exit
main ENDP
END main
```