SAAD UR REHMAN
19k-0218
SEC C

LAB TASK 9

MUL EXAMPLES:

```
TITLE ASSEMBLYCODE(please.asm)
INCLUDE Irvine32.inc
.data
val1 WORD 2000h
val2 WORD 0100h  ;Saad ur Rehman(19k-0218)
.code
main PROC
mov ax,val1 ; AX = 2000h
mul val2
call DumpRegs
main ENDP
END main
```

```
C:\Windows\system32\cmd.exe

 EAX=00AF0000  EBX=00846000  ECX=00541005  EDX=00540020
 ESI=00541005  EDI=00541005  EBP=00AFFC2C  ESP=00AFFC20
 EIP=00541022  EFL=00000A07  CF=1  SF=0  ZF=0  OF=1  AF=0  PF=1

Press any key to continue . . .
```

please.asm

```
TITLE ASSEMBLYCODE(please.asm)
INCLUDE Irvine32.inc
.code
main PROC
mov eax,12345h ;SAAD UR REHMAN (19k-0218)
mov ebx,1000h
mul ebx
call DumpRegs
main ENDP
END main
```

```
C:\Windows\system32\cmd.exe

 EAX=12345000  EBX=00001000  ECX=007A1005  EDX=00000000
 ESI=007A1005  EDI=007A1005  EBP=005DFB48  ESP=005DFB3C
 EIP=007A1021  EFL=00000206  CF=0  SF=0  ZF=0  OF=0  AF=0  PF=1

Press any key to continue . . .
```

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IMUL EXAMPLES:

please.asm

```
TITLE ASSEMBLYCODE(please.asm)
INCLUDE Irvine32.inc
.data
word1 SWORD 4
dword1 SDWORD 4 ;Saad ur REhman(19k-0218)
.code
main PROC
mov ax,-16 ; AX = -16
mov bx,2 ; BX = 2
imul bx,ax ; BX = -32
imul bx,2 ; BX = -64
imul bx,word1 ; BX = -256
mov eax,-16 ; EAX = -16
mov ebx,2 ; EBX = 2
imul ebx,eax ; EBX = -32
imul ebx,2 ; EBX = -64
imul ebx,dword1 ; EBX = -256
call DumpRegs
main ENDP
END main
```

```
C:\Windows\system32\cmd.exe

EAX=FFFFFFF0  EBX=FFFFFF00  ECX=00731005  EDX=00731005
ESI=00731005  EDI=00731005  EBP=0083FB0C  ESP=0083FB00
EIP=00731044  EFL=00000286  CF=0  SF=1  ZF=0  OF=0  AF=0  PF=1

Press any key to continue . . .
```

DIV EXAMPLES:

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ease.asm

```
TITLE ASSEMBLYCODE(please.asm)
INCLUDE Irvine32.inc
.data
word1 SWORD 4
dword1 SDWORD 4 ;Saad ur Rehman(19k-0218)
.code
main PROC
imul bx,word1,-16 ; BX = -64
imul ebx,dword1,-16 ; EBX = -64
imul ebx,dword1,-2000000000 ; OF
call DumpRegs
main ENDP
END main
```

C:\Windows\system32\cmd.exe

```
EAX=0133F9A0  EBX=2329B000  ECX=00A41005  EDX=00A41005
ESI=00A41005  EDI=00A41005  EBP=0133F954  ESP=0133F948
EIP=00A4102E  EFL=00000A07  CF=1  SF=0  ZF=0  OF=1  AF=0  PF=1
```

```
TITLE ASSEMBLYCODE(please.asm)
INCLUDE Irvine32.inc
.data
byteVal SBYTE -101 ; 9Bh
.code
main PROC ;Saad ur Rehman(19k-0218)
mov al,byteVal ; AL = 9Bh
Cbw
call DumpRegs
main ENDP
END main
```

C:\Windows\system32\cmd.exe

```
EAX=004FFF9B  EBX=0038D000  ECX=007D1005  EDX=007D1005
ESI=007D1005  EDI=007D1005  EBP=004FF95C  ESP=004FF950
EIP=007D101C  EFL=00000246  CF=0  SF=0  ZF=1  OF=0  AF=0  PF=1
```

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```
TITLE ASSEMBLYCODE(please.asm)
INCLUDE Irvine32.inc
.data
wordVal SWORD -101 ; FF9Bh
.code  ;Saad ur Rehman(19k-0218)
main PROC
mov ax,wordVal ; AX = FF9Bh
cwd
call DumpRegs
main ENDP
END main
```

```
C:\Windows\system32\cmd.exe

EAX=010FFF9B  EBX=00E20000  ECX=00101005  EDX=0010FFFF
ESI=00101005  EDI=00101005  EBP=010FFDDC  ESP=010FFDD0
EIP=0010101D  EFL=00000246  CF=0  SF=0  ZF=1  OF=0  AF=0  PF=1
```

```
Output
Show output from: Build
1>------ Build started:
```

```
TITLE ASSEMBLYCODE(please.asm)
INCLUDE Irvine32.inc
.data
dwordVal SDWORD -101 ; FF9Bh
.code  ;    Mohammad Anus(19k-1499)
main PROC
mov eax,dwordVal ; AX = FF9Bh
cdq
call DumpRegs
main ENDP
END main
```

```
C:\Windows\system32\cmd.exe

EAX=FFFFFF9B  EBX=0071D000  ECX=00EE1005  EDX=FFFFFFFF
ESI=00EE1005  EDI=00EE1005  EBP=008FFE7C  ESP=008FFE70
EIP=00EE101B  EFL=00000246  CF=0  SF=0  ZF=1  OF=0  AF=0  PF=1
```

IDIV EXAMPLES:

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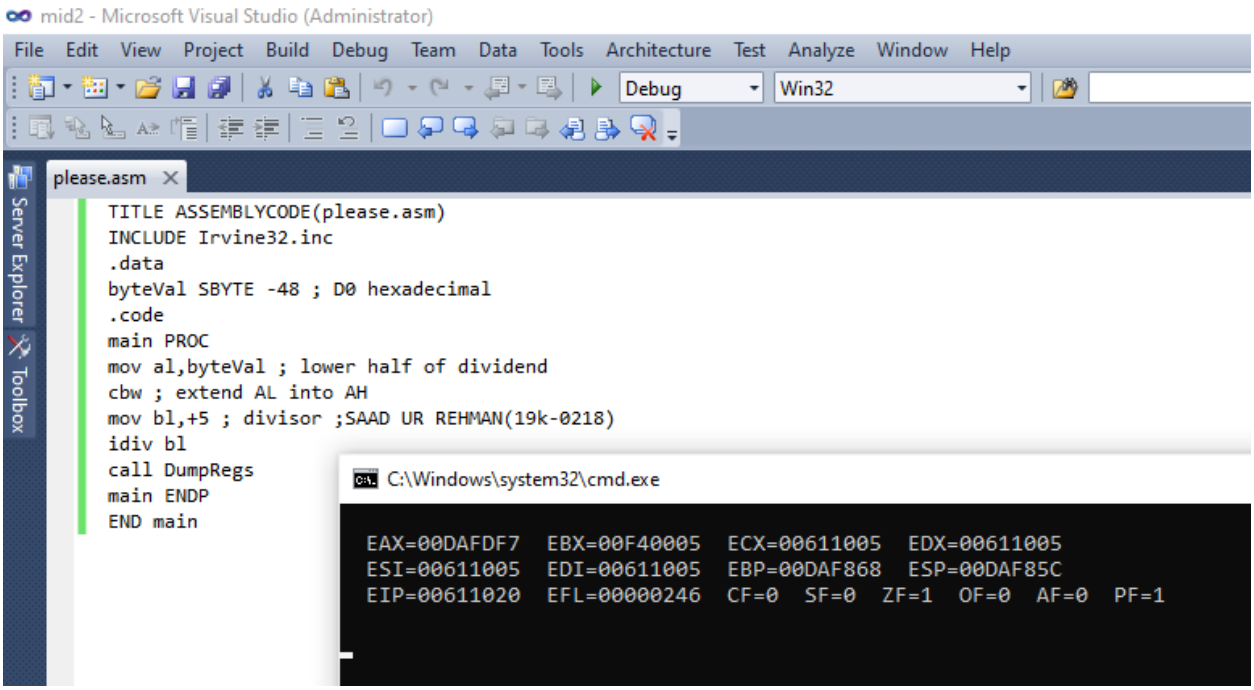

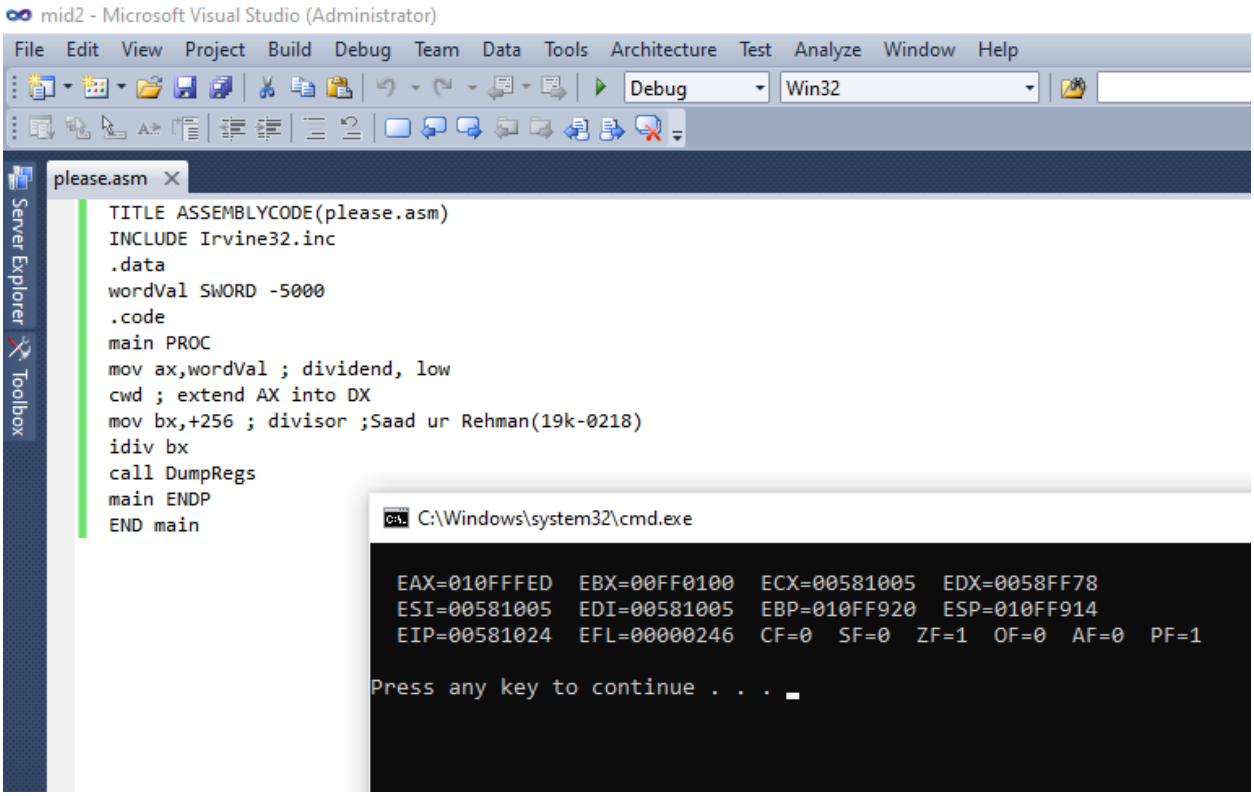

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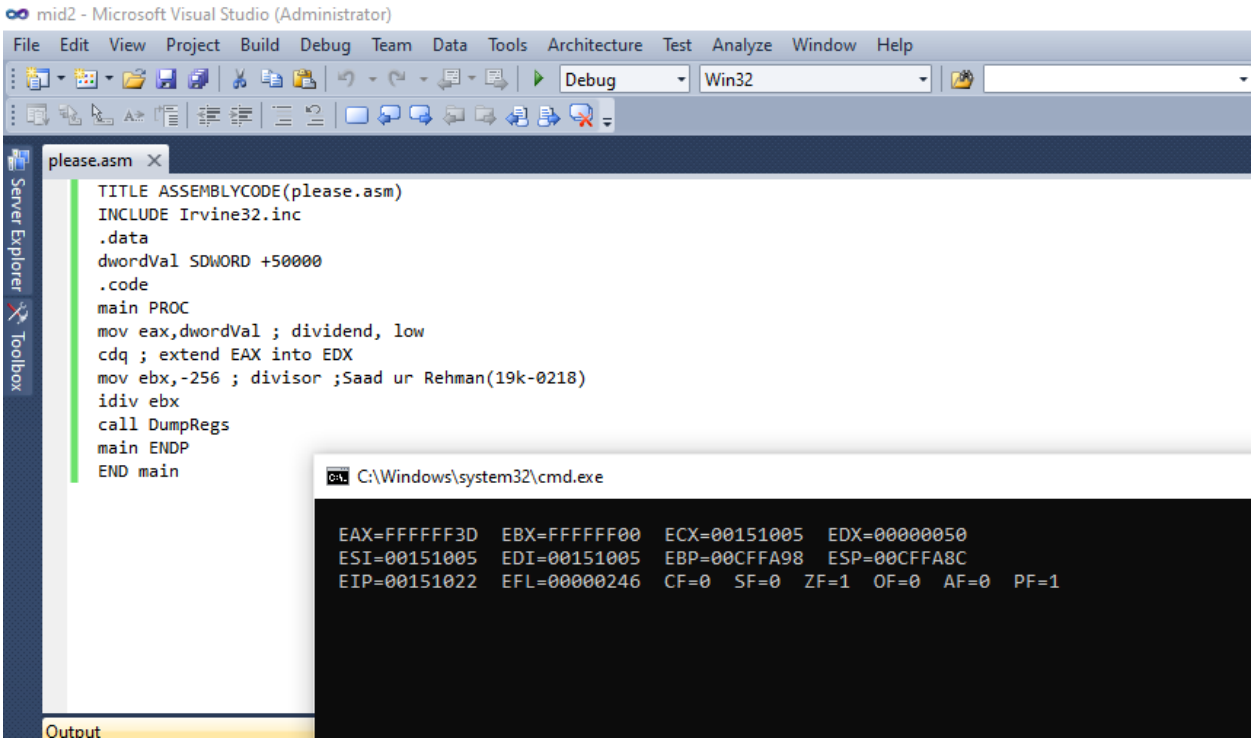

ADC AND SBB EXAMPLES:

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```
TITLE ASSEMBLYCODE(please.asm)
INCLUDE Irvine32.inc
.code
main PROC
mov dl,0   ;Saad ur Rehman(19k-0218)
mov al,0FFh
add al,0FFh ; AL = FEh
adc dl,0
call DumpRegs
main ENDP
END main
```

```
C:\Windows\system32\cmd.exe

EAX=00CFFAFE  EBX=00A4B000  ECX=00FF1005  EDX=00FF1001
ESI=00FF1005  EDI=00FF1005  EBP=00CFFA24  ESP=00CFFA18
EIP=00FF101E  EFL=00000202  CF=0  SF=0  ZF=0  OF=0  AF=0  PF=0
```