

Lab: 2

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COAL

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Task1:

Code:

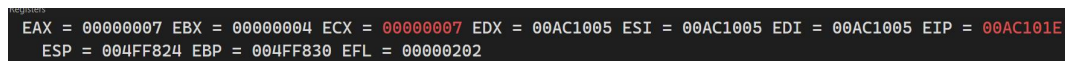
```
.386
.model flat, stdcall
.stack 4096

.code

main PROC

    mov eax , 3
    mov ebx , 4
    add eax , ebx
    mov ecx , eax
main endp
END main
```

Output:



Registers

EAX	=	00000007	EBX	=	00000004	ECX	=	00000007	EDX	=	00AC1005	ESI	=	00AC1005	EDI	=	00AC1005	EIP	=	00AC101E
ESP	=	004FF824	EBP	=	004FF830	EFL	=	00000202												

Task2:

Code:

```
.386
.model flat, stdcall
.stack 4096

.code

main PROC

    mov eax , 15
    mov ebx , 6
    sub eax , ebx
    mov ecx , eax
main endp
END main
```

Output:

```
EAX = 00000009 EBX = 00000006 ECX = 00000009 EDX = 00E81005 ESI = 00E81005 EDI = 00E81005 EIP = 00E8102C
ESP = 00F8FF5C EBP = 00F8FF68 EFL = 00000206
```

Task3:

Code:

```
.386
.model flat, stdcall
.stack 4096

.code

main PROC

    mov eax , 5
    mov ecx , 3
    MUL ecx
    mov ecx , eax

main endp
END main
```

Output:

```
Registers
EAX = 0000000F EBX = 00000006 ECX = 0000000F EDX = 00000000 ESI = 00E11005 EDI = 00E11005 EIP = 00E1103A
ESP = 0137F96C EBP = 0137F978 EFL = 00000206
```

Task4:

Code:

```
.386
.model flat, stdcall
.stack 4096

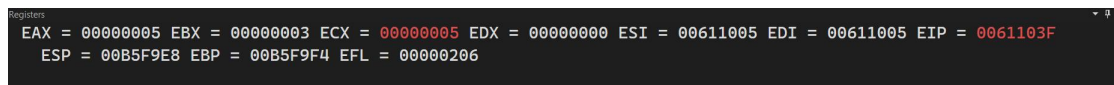
.code

main PROC
```

```
mov eax , 15
mov ebx , 3
mov edx, 0
div ebx
mov ecx , eax
```

```
main endp
END main
```

Output:



Registers
EAX = 00000005 EBX = 00000003 ECX = 00000005 EDX = 00000000 ESI = 00611005 EDI = 00611005 EIP = 0061103F
ESP = 00B5F9E8 EBP = 00B5F9F4 EFL = 00000206

Note:

In case of Multiplication:

First move values in EAX.

Value in EAX will considered as left operand in case of multiplication.

Result of multiplication is always stored in EAX.

In case of Division:

First move values in EAX.

Value in EAX will considered as left operand in case of division.

Result of division is always stored in EAX.

Remainder of division is always stored in EDX.

