

Lab 2

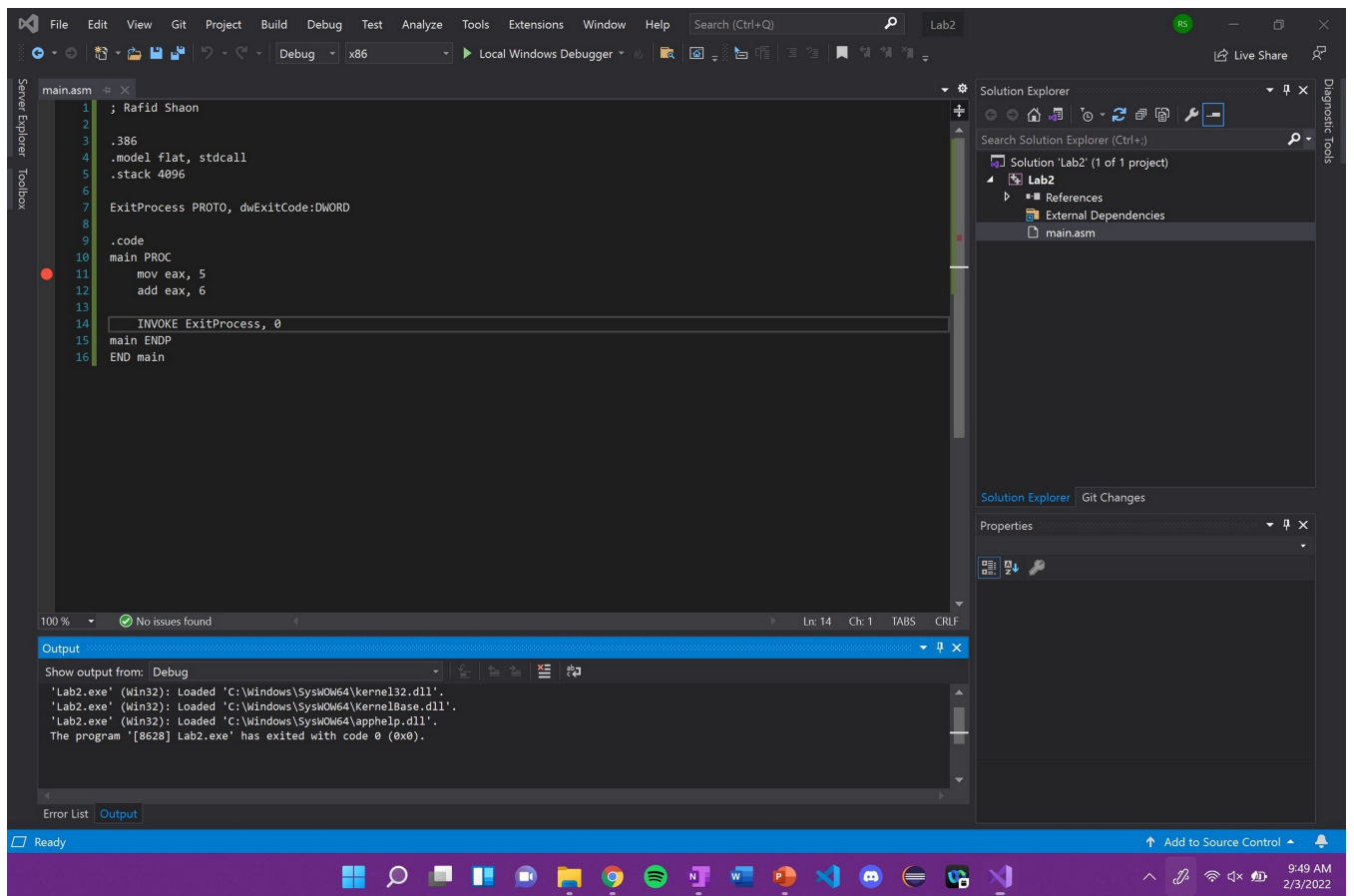
Friday, January 28, 2022 11:40 AM

Lab 2(a)

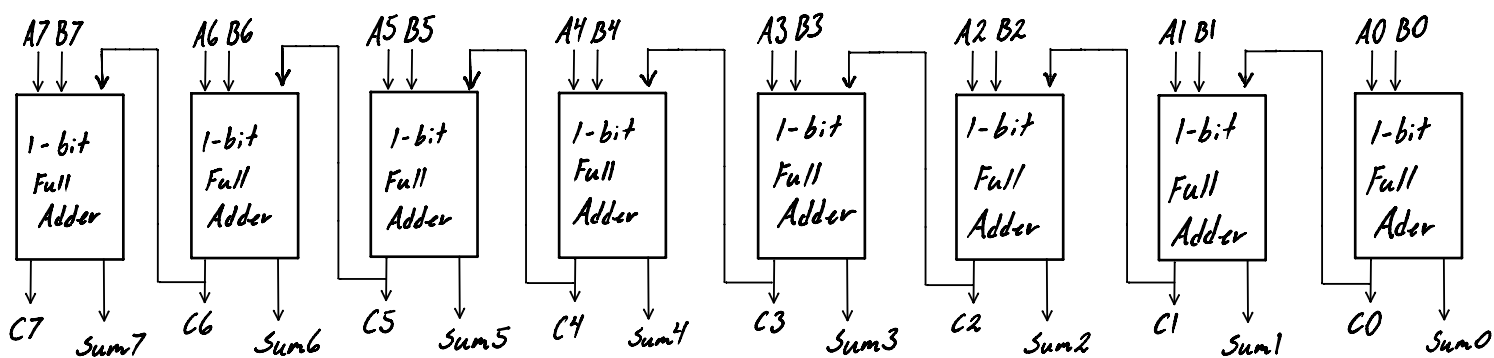
The screenshot shows the Visual Studio Code interface with the following components:

- Registers:** EAX = 00000008, EBX = 00EBA000, ECX = 002A1005, EDX = 002A1005, ESI = 002A1005, EDI = 002A1005, EIP = 002A1018, ESP = 010FFB04, EBP = 010FFB10, EFL = 00000202. OV = 0, UP = 0, EI = 1, PL = 0, ZR = 0, AC = 0, PE = 0, CY = 0.
- main.asm:**

```
1 ; Rafid Shaon
2
3 .386
4 .model flat, stdcall
5 .stack 4096
6
7 ExitProcess PROTO, dwExitCode:DWORD
8
9 .code
10 main PROC
11     mov eax, 5
12     add eax, 6
13
14     INVOKE ExitProcess, 0 ; 1ms elapsed
15 main ENDP
16 END main
```
- Diagnostic Tools:**
 - Events:** Diagnostics session: 0 seconds (163 ms selected). Timeline shows a single event at 162ms.
 - Process Memory (KB):** 471 KB. Timeline shows memory usage from 0 to 471 KB.
 - CPU Usage:** Summary, Events, Memory Usage, CPU Usage. Options: Take Snapshot, Enable heap profiling (affects performance), Record CPU Profile.
- Output:** Show output from: Debug.
 - 'Lab2.exe' (Win32): Loaded 'C:\Windows\System32\kernel32.dll'.
 - 'Lab2.exe' (Win32): Loaded 'C:\Windows\System32\KernelBase.dll'.
 - 'Lab2.exe' (Win32): Loaded 'C:\Windows\System32\apphelp.dll'.
- Autos:** Search (Ctrl+E), Search Depth: 3. Table with columns: Name, Value, Type.
- Bottom Bar:** Call Stack, Breakpoints, Exception Settings, Command Window, Immediate Window, Output. Status: Ready.

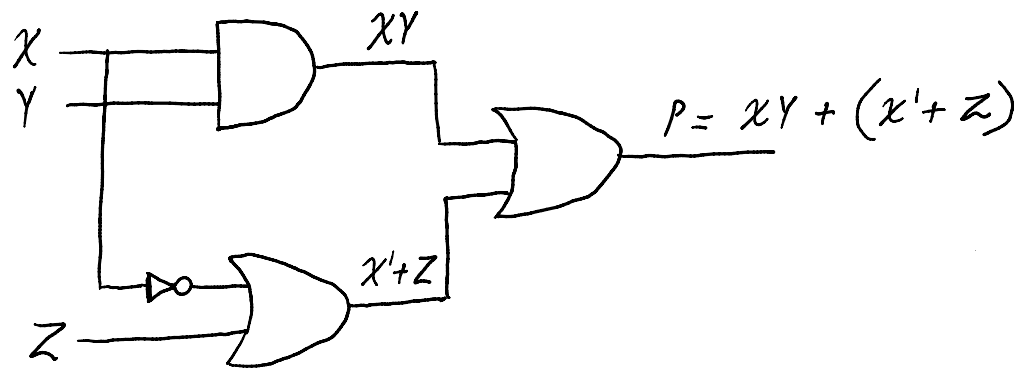


Lab 2(b) Problem 1



Lab 2(b) Problem 2





Lab 2 (c)

EAX register stores the value up to 32 bit long

Given value of EAX is 12784569 h

So we can see that this value is in **hexadecimal** format it's clear, thus it also contains 32 bit (8×4).

Now, the given number is stored as ---->

The four parts of EAX are separating using " | " .

So, Each part is 8 bit long and h denotes the number is in hexadecimal

12 h= 00001100 (**Binary**)

Ans ----> | 12 h | 78 h | 45 h | 69 h |

31				0
	12 h	78 h	45 h	69 h

4 bytes