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Task1. Structure is a custom type which can hold different types of data, and multiple at one time.. Union is a type which can hold variety of different types, but only one at a time.

Task2. anonymous union is a union inside the structure. Each element of it has the same address, so there is no point to full more memory, and also there is no need to use different middle identifiers to access members of this union.

Task3.

The screenshot shows a Windows desktop with two windows open. The top window is Visual Studio Code, displaying a C++ program. The program defines a hexadecimal array and a loop that prints the address of each element. The bottom window is Windows Task Manager, showing the 'Processes' tab with a list of running applications. The application 'hexadecimal.exe' is highlighted in the list.

Visual Studio Code Window:

```

main.cpp - CodeBlocks 17.12
File Edit View Search Project Build Debug Settings Help
C:\Users\Student\Desktop\lab\main.exe
print_addresses(structure one, union1 two): void
global
Management
C:\Users\Student\Desktop\lab\main.exe
hexadecimal:
0x6dfcb0
0x6dfcb0
0x6dfcb4
0x6dfcb4
0x6dfcb8
0x6dfcb8
0x6dfcb8
0x6dfcb8
decimal
7288624
7288632
7288628
7288616
7288616
7288616
Process returned 0 (0x0)   execution time : 0.050 s
Press any key to continue.

```

Windows Task Manager Window:

Log & others

- Code:Blocks
- Search results
- Cccc
- Build log
- Build messages
- CppCheck/Ver++
- CppCheck/Ver++ messages
- Cscope
- Debugger
- DoxyBlocks
- Fortran

Checking for existence: C:\Users\Student\Desktop\lab\main.exe
 Executing: "C:\Program Files (x86)\CodeBlocks\cb_console_runner.exe" "C:\Users\Student\Desktop\lab\main.exe" (in "C:\Users\Student\Desktop\lab")
 Process terminated with status -1073741510 (0 minute(s) 5 second(s))

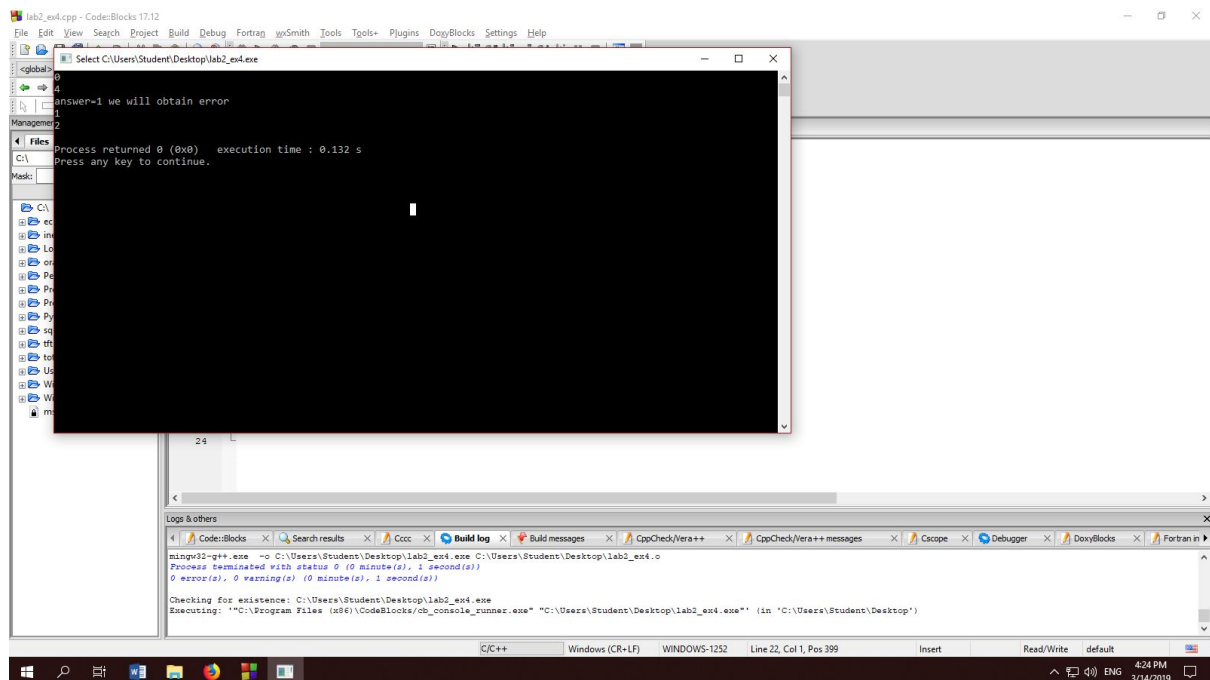
Checking for existence: C:\Users\Student\Desktop\lab\main.exe
 Executing: "C:\Program Files (x86)\CodeBlocks\cb_console_runner.exe" "C:\Users\Student\Desktop\lab\main.exe" (in "C:\Users\Student\Desktop\lab")

C/C++ Windows (CR-LF) WINDOWS-1252 Line 31, Col 35, Pos 842 Insert Read/Write default

4:39 PM 3/14/2019

In exercise 3 each element of union has one address because this is how unions work (all elements of union share one address which contains the highest value from all parameters.) each type of structure part has different address because they are all written in different places in memory.

Task4.



All assignments apart from answer=1; are possible. We cannot write that answer=1 because instances of type enum must be casted using the integral constants.

Task5.

