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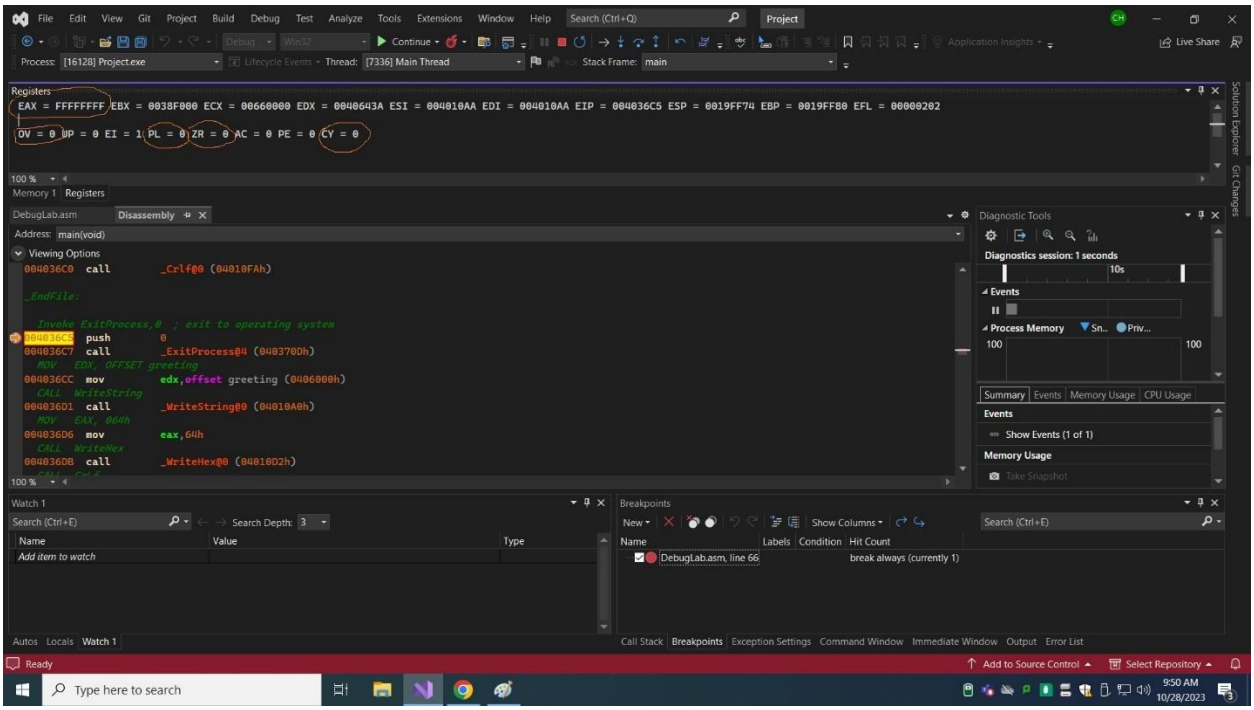
ONID ID:934554197

Date: 10/29/2023

Part 1 Questions



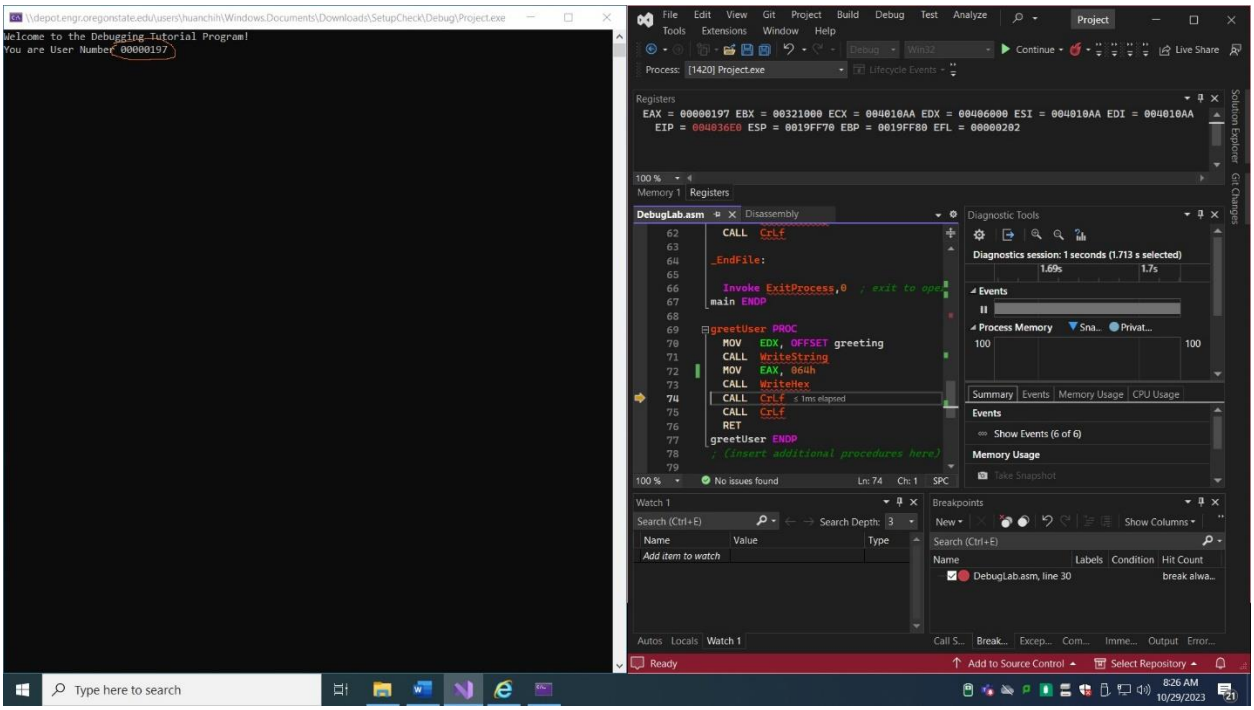
1.What is the current value (in Hex) of the EAX Register?

The current value in Hexadecimal of the EAX Register is FFFFFFFF.

2.What is the current state (Set/Clear) of the following flags: Carry, Overflow, Zero, Sign?

OV = 0 PL = 0 ZR = 0 CY = 0

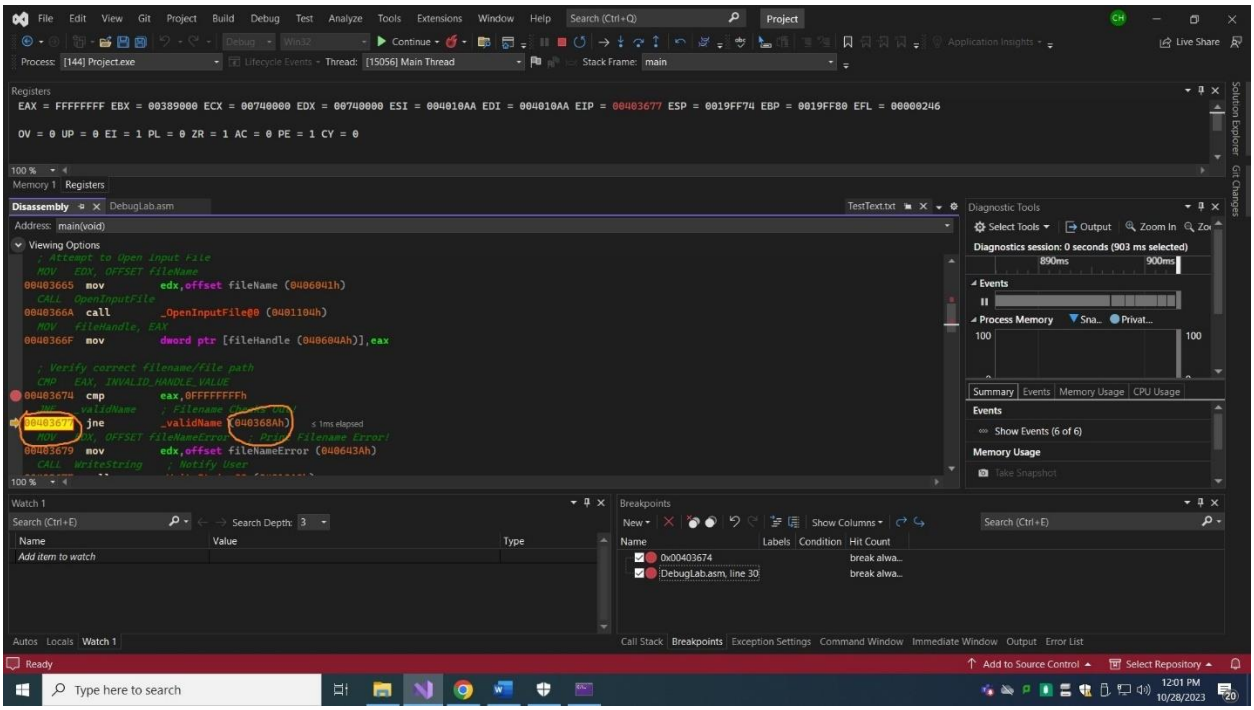
Part 2 Questions



1.(Screenshot of your User Number number in Terminal Window and Registers/Editor window in Visual Studio).

The user number is 00000197

Part 3 Questions



1.What instruction (with operands, if any) is located at the _validName code label? (Hint: The first instruction after a code label is considered to be "at" that label.)

The instructions located at the _validName code label are 040368Ah.

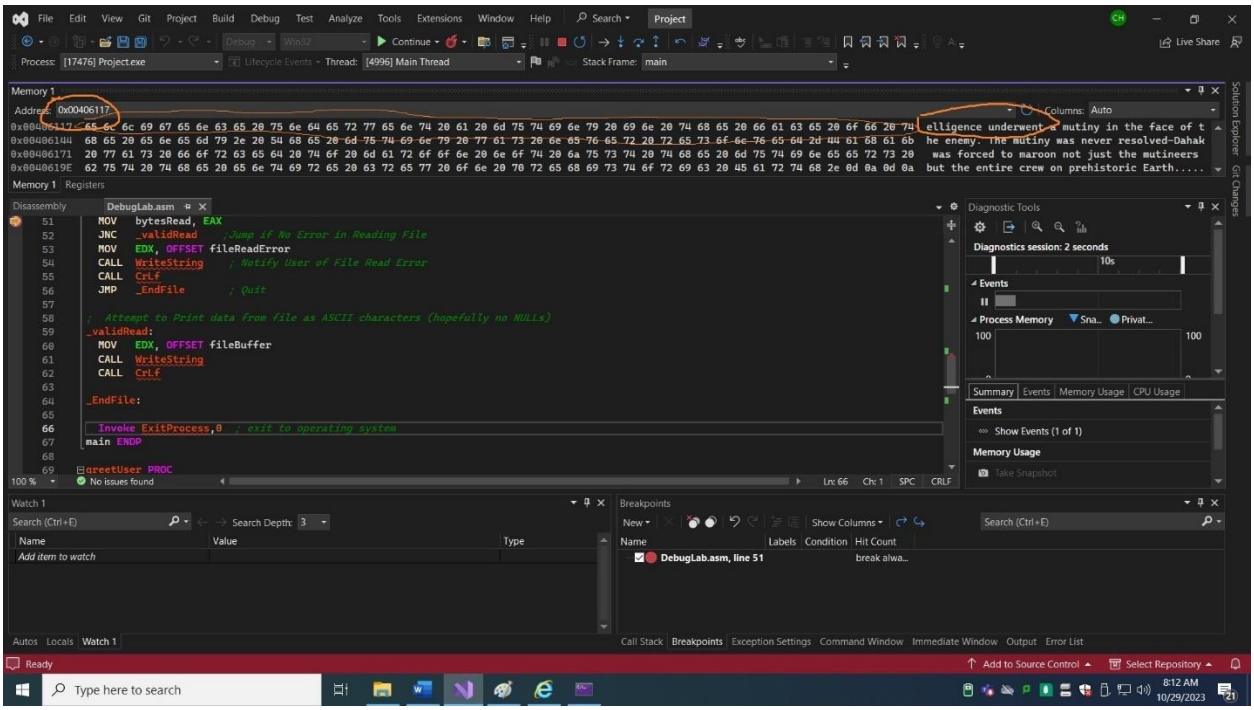
2.What is the memory address (in the code segment) of the instruction from Question 1 above? (Hint: It will be a hex value to the left of this instruction.) Please circle this line on the screenshot attached to this part in your report, including the instruction and operands from Question 1.

The memory address of the instruction is 00403677.

3.What is the significance of the relationship between the value in EIP (in the Registers window) and the leftmost value on any given line?

The memory address of the instruction in the code segment is represented by the leftmost value on each line. The EIP register retains the memory address of the next instruction to be executed. The microcode in the CPU restores the EIP every time a new value wants to execute by decoding itself As a result, for an instruction to be executed, the value in EIP must correspond to the memory address of the instruction at the leftmost position of the respective line.

Part 4 Questions

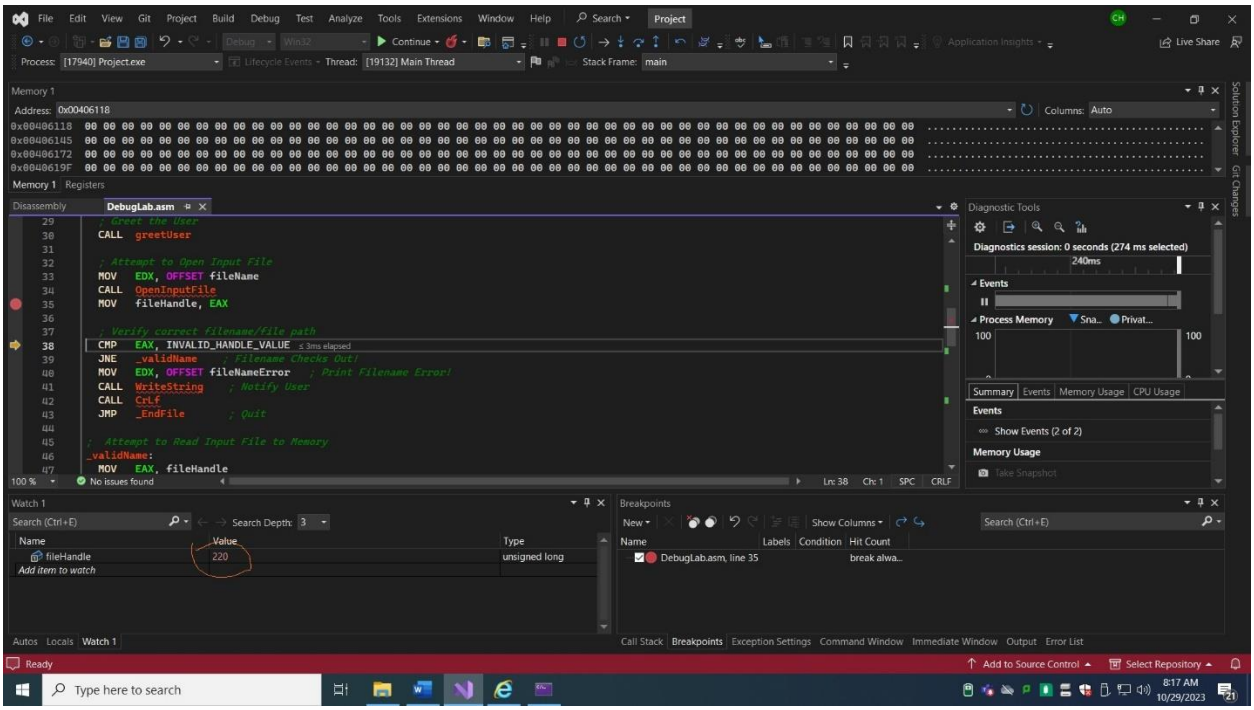


1.Let n = (the last three digits of your OSU ID number). What is the (n+1)st byte (index n) of TestText.txt, interpreted as an ASCII character?

(197 is the last 3 of my osu ID)&fileBuffer+197 we can say that the 'e' is the (n+1)st byte (index n) of TestText.txt

2.Remember to take a screenshot of the Memory window used to collect this information for inclusion in the lab report. Please circle the value in the address bar and the character in the ASCII portion of the Memory debug window.

Part 5 Questions



1.A file handle is reference number supplied by the operating system, and used by a running program to uniquely identify a file. The lab uses the fileHandle variable to store this value. What is the file handle of TestText.txt in your execution of the lab program? (This builds on the same watch you used in Step 6 above, but is a new question. There are multiple 'watches' which will can get you this value, depending on where you have paused execution.)

Please be aware that the handle for a particular file may be different each time you run your program (the operating system state may change between runs), so remember to include a screenshot that shows where you obtained this information, and please circle the value of the file handle on this screenshot.

The value of the file handle is 220