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CSC3320 System Level Programming

10/29/21

Lab Assignment#9: Post – Lab

**Part 1:**

Screenshot of code:

Text

Description automatically generated

Screenshot of output: Text

Description automatically generated

**Part 2:**

1. Screenshot of output:

Text

Description automatically generated

1. Screenshot of source code:

A screenshot of a computer

Description automatically generated with medium confidence

1. The address of intvar is incremented by 4 bytes rather than charvar which is incremented by one. The reason for intvar to be incremented by more bytes is because the memory address is being incremented to the next integer address. Since the data type is of integer type then the address is incremeneted accordingly to point to the next integer location. Because each integer value is 4 bytes, incrementing by 1 byte would move to the address location of part of that same value. For example incrementing 1 by one byte would not move to 2 but instead move to the partial address location of 1 mixed with other garbage values.

**Part 3:**

1. Screenshot of output:

A screenshot of a computer

Description automatically generated

Screenshot of source code:

Text

Description automatically generated

1. Yes, the address of the array numbers and the address of the first element of the array number is the same. This is because when the address of an array is printed, the address of where the array begins is printed, which is located at the first element.
2. The statement to print out the length of the array using the sizeOf operator is:

printf(“length of array = %d\n”, (sizeof(numbers)/sizeof(numbers[0]));