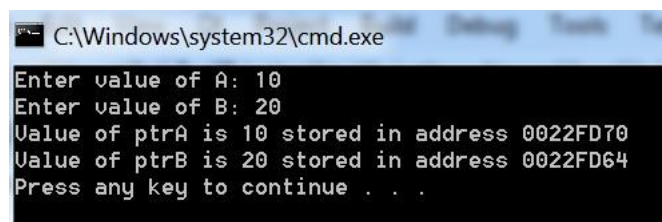


## Lab 11 Pointers and Call by Reference

NOTE: Q2 is available for testing on PASS.

Q-1. Write a program that asks the user to enter integers as inputs to be stored in the variables **A** and **B** respectively. There are also two integer pointers named **ptrA** and **ptrB**. Assign the addresses of **A** and **B** to **ptrA** and **ptrB** respectively, and display the values in **A** and **B** using **ptrA** and **ptrB**.

A sample output is shown below.



```
C:\Windows\system32\cmd.exe
Enter value of A: 10
Enter value of B: 20
Value of ptrA is 10 stored in address 0022FD70
Value of ptrB is 20 stored in address 0022FD64
Press any key to continue . . .
```

Q-2. Download **current.cpp**, and modify the program to compute the value of current(**I**), given the values of resistance (**R**) and voltage (**V**), where  $I=V/R$ . For example, when voltage=5.1 and resistance=2, the current is  $5.1/2=2.55$ .

The program should be made up of the following three functions:

1. **getInput()**: get the voltage and resistance from user using **call by reference**. The return type of this function is void.
2. **toCurrent()**: calculate the current **I** given **V** and **R**. The function should return a real number for the value of **I**.
3. **main()**: calls **getInput()** to obtain **V** and **R** by using **call by reference**. After that, the program should pass **V** and **R** to the function **toCurrent()** to obtain **I**. Finally, the value of **I** is printed (to 2 decimal places, with `cout << fixed << setprecision(2) << I << endl;` )

Expected output:

| Example                                                                                                     |
|-------------------------------------------------------------------------------------------------------------|
| Please enter the voltage: <u>2</u><br>Please enter the resistance: <u>5</u><br>The value of current is 0.40 |