

## Lab8 – Pointers

On Nov. 8th

1. Write a program that receives 2 integers and swap them and print them out if the first integer is larger than the second integer. Use the function 'swap' to swap the two integers:

```
void swap(int *A, int *B);
```

Enter 2 numbers:                38 2

Swapped:                        2 38

2. Write a program that receives two numbers and compute the greatest common divisor (GCD) and the least common multiple (LCM). Use the function 'find\_GCD\_LCM' to find the GCD and LCM from an array 'arr' of length 'n' and save them in the variables pointed by 'GCD' and 'LCM':

```
void find_GCD_LCM(int arr[], int n, int *GCD, int *LCM);
```

Two numbers:                12 16

GCD:                        4

LCM:                        48

3. Write a program that asks the user to enter a US dollar amount (dollars) and then shows how to pay that amount using the smallest number of \$20 (twenties), \$10 (tens), \$5 (fives), and \$1 (ones) bills. Use the function below:

```
void pay_amount(int dollars, int *twenties, int *tens, int *fives, int *ones);
```

Enter a dollar amount:        93

\$20 bills:                    4

\$10 bills:                    1

\$5 bills:                     0

\$1 bills:                     3