Lab 1

Turn In:

1. Coding Assignment – Due Thursday, ???? ??, 2014
    a) For each exercise, a hardcopy package must be generated to include the following items:
        - Cover Sheet (see the sample copy include in lecture note)
        - Exercise/problem statement
        - Copy of program (named as **`cis27Spring2014YourNameLab1Ex1)`**
        - Copy of output (copy and paste from output screen as possible)

    b) Submitting in class one hard copy package for each exercise; and
    c) Emailing your work as follows,
        - One message for each exercise.
        - Attaching the source file (program) that was created in part (a).
        - The SUBJECT line of the message should have one of the following lines:
          `CIS 27 Spring 2014 Your Name : Lab 1 – Exercise #1`
          Or,
          `cis27Spring2014YourNameLab1Ex1`

2. Q.E.D.

****

1. Coding Assignment

Exercise #1

1. Write a menu program to have the display below,

```
CIS 27 – C Programming
Laney College
Your Name

Assignment Information --
  Assignment Number:  Lab 01,
                      Coding Assignment -- Exercise #1
  Written by:         Your Name
  Submitted Date:     Due Date
```

2. Then, the menu will present the options so that certain computations would be as desired. In the menu (as shown in the output below), there is a function named as `getSecondLargestEvenYourName()` and you are asked to implement this function so that the output can be generated.

   The above function should receive all necessary data from some existing array and produce the required value.

   The function MUST NOT MODIFY the existing array in any forms/ways after completing its calls.

3. The menu function should be named as `menu01YourName()`, which will allow you select and perform the "interesting" options.

4. In your program, no GLOBAL DATA are allowed.

5. Name your program as **`cis27Spring2014YourNameLab1Ex1.c`**

   Test your output with the data to be identified in class.

   Attach the output at the end of your source code (as comment).

   A sample output (sequence) is shown on the following pages.

```
*********************************************
*                    MENU 01                *
* 1. Calling getSecondLargestEvenYourName() *
* 2. Quit                                   *
*********************************************
Select the option (1 or 2): 7

  You should not be in this class!


*********************************************
*                    MENU 01                *
* 1. Calling getSecondLargestEvenYourName() *
* 2. Quit                                   *
*********************************************
Select the option (1 or 2): -7

  You should not be in this class!


*********************************************
*                    MENU 01                *
* 1. Calling getSecondLargestEvenYourName() *
* 2. Quit                                   *
*********************************************
Select the option (1 or 2): 1

// Performing the necessary steps to create the required array

Calling getSecondLargestEvenYourName() --

  For the array with the elements shown below
    // Displaying the array elements appropriately

  The second largest even value is //(fill in the proper value)


*********************************************
*                    MENU 01                *
* 1. Calling getSecondLargestEvenYourName() *
* 2. Quit                                   *
*********************************************
Select the option (1 or 2): 9

  You should not be in this class!


*********************************************
*                    MENU 01                *
* 1. Calling getSecondLargestEvenYourName() *
* 2. Quit                                   *
*********************************************
Select the option (1 or 2): 1

// Performing the necessary steps to create the required array

Calling getSecondLargestEvenYourName() --
```

```
  For the array with the elements shown below
    // Displaying the array elements appropriately

  The second largest even value is //(fill in the proper value)


*********************************************
*                    MENU 01                *
* 1. Calling getSecondLargestEvenYourName() *
* 2. Quit                                   *
*********************************************
Select the option (1 or 2): 1

// Performing the necessary steps to create the required array

Calling getSecondLargestEvenYourName() --

  For the array with the elements shown below
    // Displaying the array elements appropriately

  The second largest even value is //(fill in the proper value)


*********************************************
*                    MENU 01                *
* 1. Calling getSecondLargestEvenYourName() *
* 2. Quit                                   *
*********************************************
Select the option (1 or 2): 2

  Have Fun ...
```

SOME INTERESTING CODE FRAGMENT:

```
/**
 * Program Name: cis27FunStuff.c
 * Written By:   _____ Fun Person _____
 */
#include <stdio.h>

// Function Prototypes

// You are asked to provide complete prototype(s) for
// the requried function(s)

int main() {
  int ary1[] = {123, 456, -7890, 12};
  int ary2[5] = {-123, 654, 78, 15, 189};
  int ary3[2] = {9, 9};
  int ary4[5] = {123, 456, -7890, 12, 12};
  int ary5[6] = {123, 24, 45, -789, 24, 1};
  int ary6[7] = {123, 24, 4561, -789, 241, 1, -3};
  int ary7[1] = {2};
  int ary8[1] = {15};

  int secondLargestEven;

  printf("Calling getSecondLargestEven() -- First Call ...\n");

  secondLargestEven = getSecondLargestEven(ary1, 4);
  printf("The second largest even integer from ary1[] : %d\n",
    secondLargestEven);

  printf("\n\nCalling getSecondLargestEven() -- Second Call ...\n");

  secondLargestEven = getSecondLargestEven(ary2, 5);
  printf("The second largest even integer from ary2[] : %d\n",
    secondLargestEven);

  printf("\n\nCalling getSecondLargestEven() -- Third Call ...\n");

  secondLargestEven = getSecondLargestEven(ary3, 2);
  printf("The second largest even integer from ary3[] : %d\n",
    secondLargestEven);

  printf("\n\nCalling getSecondLargestEven() -- Fourth Call ...\n");

  secondLargestEven = getSecondLargestEven(ary4, 5);
  printf("The second largest even integer from ary4[] : %d\n",
    secondLargestEven);

  printf("\nCalling getSecondLargestEven() -- Fifth Call ...\n");

  secondLargestEven = getSecondLargestEven(ary5, 6);
  printf("The second largest even integer from ary5[] : %d\n",
    secondLargestEven);

  printf("\nCalling getSecondLargestEven() -- Sixth Call ...\n");

  secondLargestEven = getSecondLargestEven(ary6, 7);
  printf("The second largest even integer from ary6[] : %d\n",
    secondLargestEven);
```

```
  printf("\nCalling getSecondLargestEven() -- Seventh Call ...\n");

  secondLargestEven = getSecondLargestEven(ary7, 1);
  printf("The second largest even integer from ary7[] : %d\n",
    secondLargestEven);

  printf("\nCalling getSecondLargestEven() -- Eighth Call ...\n");

  secondLargestEven = getSecondLargestEven(ary8, 1);
  printf("The second largest even integer from ary8[] : %d\n",
    secondLargestEven);

  return 0;
}

// Function Definitions

// You are asked to provide the complete function definition(s) with
// the given prototype(s) of above (so that the output can be
// achieved as below

/*OUTPUT
Calling getSecondLargestEven() -- First Call ...
The second largest even integer from ary1[] : 12

Calling getSecondLargestEven() -- Second Call ...
The second largest even integer from ary2[] : 78

Calling getSecondLargestEven() -- Third Call ...
The second largest even integer from ary3[] : -1999999999

Calling getSecondLargestEven() -- Fourth Call ...
The second largest even integer from ary4[] : 12

Calling getSecondLargestEven() -- Fifth Call ...
The second largest even integer from ary5[] : -1999999999

Calling getSecondLargestEven() -- Sixth Call ...
The second largest even integer from ary6[] : -1999999999

Calling getSecondLargestEven() -- Seventh Call ...
The second largest even integer from ary7[] : -1999999999

Calling getSecondLargestEven() -- Eighth Call ...
The second largest even integer from ary8[] : -1999999999
*/
```