

## **LAB#06 EXERCISES**

### **INSTRUCTIONS:**

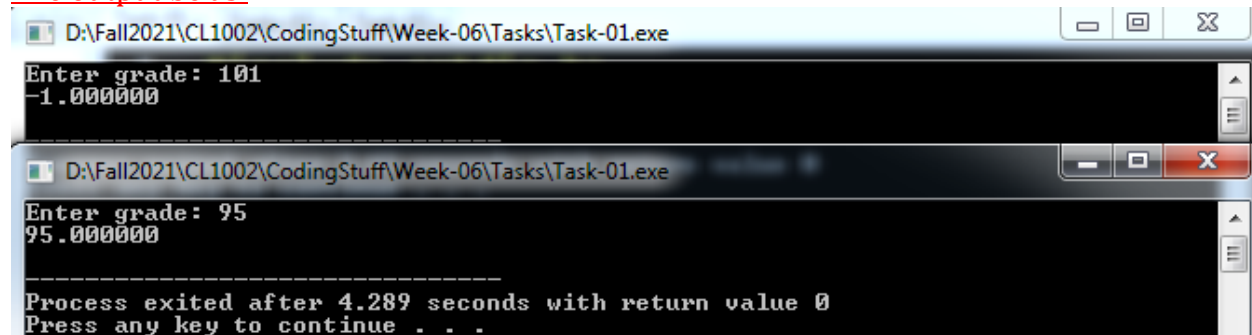
**NOTE: Violation of any of the following instructions may lead to the cancellation of your submission.**

- 1) Create a folder and name it by your student id (k16-1234).
- 2) Paste the .c (Save as type) file for each question with the names such as Q1.c, Q2.c and so on into that folder.

**LOOPS OR OTHER HIGHER LEVEL CONCEPTS ARE NOT ALLOWED TO BE USED FOR SOLVING THE FOLLOWING PROBLEMS. USE NESTED IF OR IF-ELSE-IF STRUCTURE TO SOLVE THE PROBLEMS. DON'T USE LOGICAL OPERATORS. VIOLATION OF THIS CONDITION WILL RESULT IN ZERO MARKS.**

**Task 01:** write a program which asks your grade as input and stores it in a variable only if the grade is in range 50-100. If the value is not in range, then the variable should return -1 value. Note: (Use conditional operator only)

The output be as:



```
D:\Fall2021\CL1002\CodingStuff\Week-06\Tasks\Task-01.exe
Enter grade: 101
-1.000000

D:\Fall2021\CL1002\CodingStuff\Week-06\Tasks\Task-01.exe
Enter grade: 95
95.000000

Process exited after 4.289 seconds with return value 0
Press any key to continue . . .
```

**Task 02:** Consider the use case of task 01 where you want to check if the user entered number is negative then your program must display a message “The entered number is negative” otherwise the message “The entered number is positive” should be displayed. If the entered number is zero, then the message “The number is zero” should be displayed.

(Use conditional operator only)

**Task 03:** In cafeteria once a freshman offers your instructor for helping the programming assignment if your instructor buys him a cold drink. Your instructor agreed and went on counter and asked for drink price. The manger tells the price of three different cold drinks, dew, Pepsi and Coca cola. Your instructor can’t figure out that which one price is high. Write a program which can help your instructor in finding the highest price of bottle. (Use Nested if else only).

The output be as:

```
D:\Fall2021\CL1002\CodingStuff\Week-06\Tasks\Task-03.exe
Enter price for Pepsi: 25
Enter price for dew: 35
Enter price for Coca Cola: 40
Coca Cola price is high = 40.000000

-----
Process exited after 7.041 seconds with return value 0
Press any key to continue . . .
```

**Task 04:** Re-write a program for considering the scenario of task-03 by using (conditional operator only). if you are asked to change both program for finding the minimum price then what changes will be done to the code.

**Task 05:** Write a program which asks your grade as input and display's a message accordingly.

Messages should be displays as:

75-100 display message: A

50-74 display message: B

0-49 display message: Fail

If grade is out the mentioned numbers, then message displayed will be: Invalid input

**Note:** a) Use conditional operator only

b) solve the same task using Nested if else

**Task 06:** Write a program that displays the area of a square, rectangle, right-angle triangle, parallelogram, or a circle based on the user's choice. If the user enters 0, the program should read the side of the square and display its area. If the user enters 1, the program should read the radius of the circle and display its area. Note: Use Nested Switch-Case only

The output be as follows:

```
D:\Fall2021\CL1002\CodingStuff\Week-06\Tasks\Task-06.exe
Enter choice <
0:square
1:circle
2: Rectangle
3:Right-angle Traingle
4: Parallelogram>:
0
Enter side length: 8
Square area is 64.000000

-----
Process exited after 28.69 seconds with return value 0
Press any key to continue . . .
```

**Task 07:** Consider the scenario of task 06. You got an answer one your choice. Now write a program which takes your selected choice returned answer as input and displays a message that your program returned output of task 06 is even or odd, or prime number and also returns the factorial of your returned output if your output is within range (0-9) only. Use Nested Switch-Case only.

Hint use goto statement for finding factorial part and prime checking part.