**A blue and yellow logo

Description automatically generated with low confidence San Francisco Bay University**

**Lab 2 Basic Programming Questions in C Language**

**Due day: 1/25/2023**

**Instruction:**

1. **Push the answer sheets/source code to Github**
2. **Please follow the code style rule like programs on handout.**
3. **Overdue lab assignment submission can not be accepted.**

**4. Take academic honesty and integrity seriously (Zero Tolerance of Cheating & Plagiarism)**

**Objectives:**

This exercise is to write programs to solve some interesting questions by logic operation, loops and conditional statements

**The Laboratory Assignments:**

* **Requirements:** write programs for the following questions, and then post them in Github including program description in header block comments area.

1. Swap two numbers without using third variable avoiding overflow issue
2. Reverse a given number and print it on the monitor

*Output:*

*enter any no to get its reverse: 456*

*reverse=654*

1. Find greatest in 3 numbers from keyboard input

*Output:*

*enter value for a, b& c: 5 7 4*

*b is greatest*

1. Find that entered year is leap year or not

*[hint] In the Gregorian calendar three criteria must be taken into account to identify leap years:*

*- The year can be evenly divided by 4;*

*- If the year can be evenly divided by 100, it is NOT a leap year, unless;*

*- The year is also evenly divisible by 400. Then it is a leap year.*

1. Find whether given number is even or odd from keyboard input
2. Shift input data by three bits to the left

*Output:*

*Read the integer from keyboard: 2*

*The left shifted data is = 16*

1. Use switch statement to display Monday to Sunday

*Output:*

*enter m for Monday*

*t for Tuesday*

*w for Wednesday*

*h for Thursday*

*f for Friday*

*s for Saturday*

*u for Sunday: f*

*Friday*

*Notice that “f” is your input from keyboard*

1. Display arithmetic operator using switch case.

*Output:*

*enter two numbers: 8 4*

*enter 1 for sum*

*2 for multiply*

*3 for subtraction*

*4 for division: 1*

*sum=12*

*Notice that “1” is your input from keyboard*

1. Input a number, such as n from keyboard and display their sum from 1 to n by using loops

*Output:*

*enter a number: 10*

*sum = 55*

*notice that 55 = 1+2+3+4+5+6+7+8+9+10*

1. Print stars as following sequence on the monitor by loops

