Authors:
NetIDs:
Date:
Project Name: Lab 5

Description
In this lab, you will work in your designated ** team ** within your lab section. Since this is the case, the code given to you is minimal. You will work together to interface with the adxl345 accelerometer using the I2C communication protocol. To show you have interfaced correctly, you will print the x, y, and z axis values to the monitor using Serial.print

Instructions
You will need to create a circuit using your breadboard, jumper wires and the accelerometer.

Requirements
Overall
1. The project must follow good coding practices and be well commented.
2. Arduino libraries are not allowed at all for this lab with the exception of debug/printing functionality using Serial.println.

In a file called i2c.cpp or in main.cpp

1. All communication must be done over the SDA and SCL pins.
2. It is suggested that you write the following functions to replace the wire.library routines:
    a. beginTransmission function should accept one int parameter.
    b. endTransmission function should accept no parameters.
    c. write function should accept one int parameter.
    d. requestFrom should accept 2 int parameters.
    e. read should accept no parameters.

       Note: If your code combines some of the functions described above (e.g. requestFrom and read), that is acceptable. The main goal is to demo the accelerometer working for all 3 axis using your group's code.

timer.cpp
1. Implement a precise millisecond timer using timer 1.

main.cpp

1. Should print out all 3 axis data points.
2. Data should print once every 1000 milliseconds.