Distance measurement & displaying using Ultrasonic Sensor, LCD:

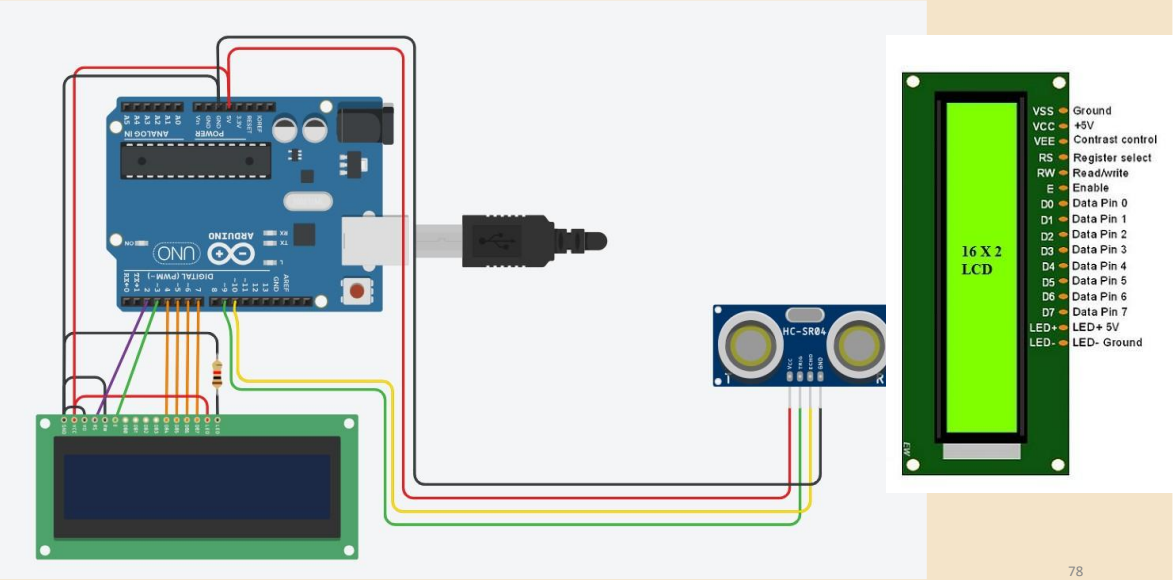
Task:

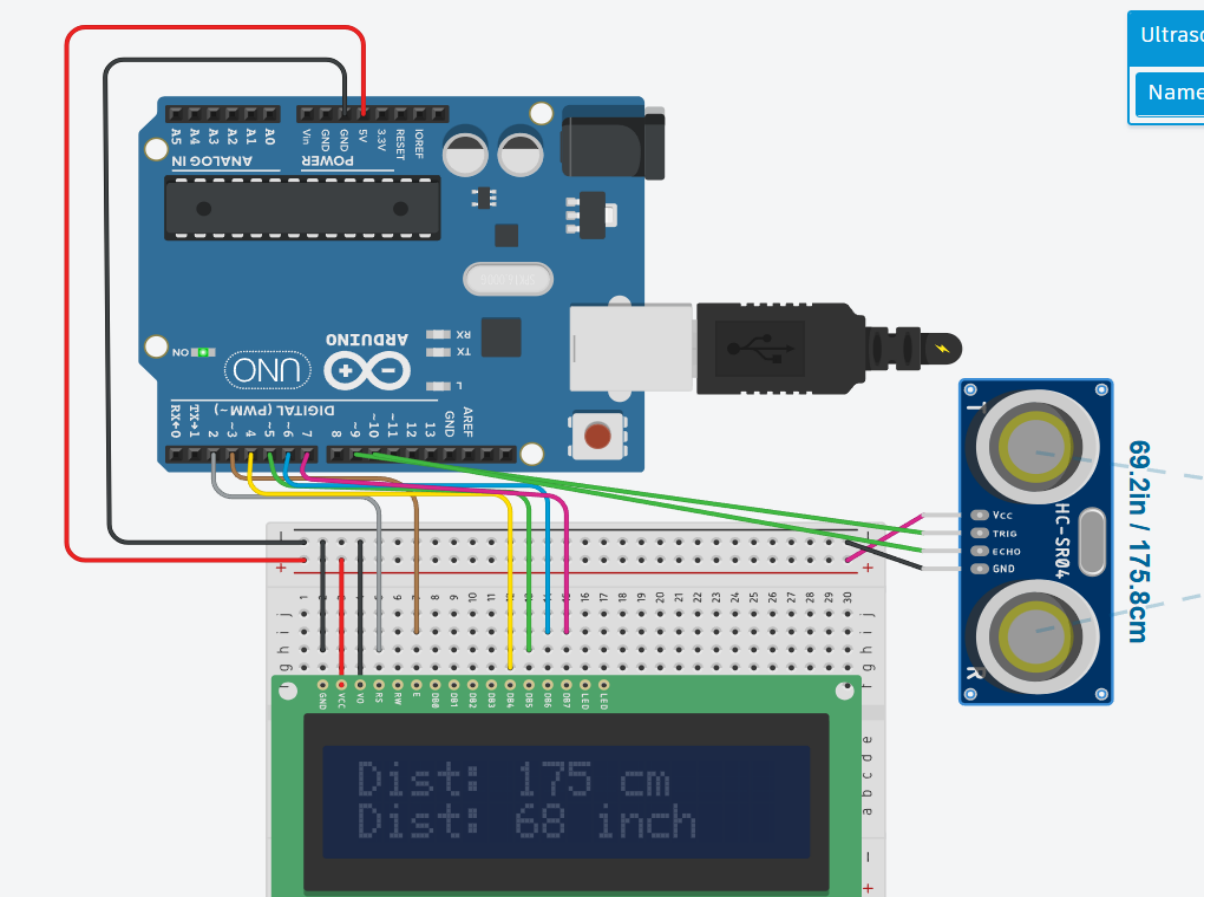
- Read Distance Using an Ultrasonic sensor and write in LCD (Liquid Crystal Display (16 bits ,2)

Questions:

- What are the Register pin Enable pins LCD ?
- What are Header files
- How to include

Distance measurement & displaying using Ultrasonic Sensor, LCD:






```
#include <LiquidCrystal.h>

LiquidCrystal lcd(2, 3, 4, 5, 6, 7);

// LCD Parameters: (register select(rs), enable, d4, d5, d6, d7)

const int trigPin = 9;

const int echoPin = 10;

long duration;

int distanceCm;

int distanceInch;

void setup()

{

lcd.begin(16,2);

pinMode(trigPin, OUTPUT);

pinMode(echoPin, INPUT);
```

```
}
void loop()
{
digitalWrite(trigPin, LOW);
delayMicroseconds(10);
digitalWrite(trigPin, HIGH);
delayMicroseconds(10);
digitalWrite(trigPin, LOW);
duration = pulseIn(echoPin, HIGH);
distanceCm= duration*0.0344/2;
  // Speed of sound in air = 344 m/s
  // 2.54cm = 1 inch (or) 1 inch=0.3937 cm
distanceInch = duration*0.0135/2;
lcd.setCursor(0,0);
lcd.print("Dist: ");
lcd.print(distanceCm);
lcd.print(" cm");
delay(10);
lcd.setCursor(0,1);
lcd.print("Dist: ");
lcd.print(distanceInch);
lcd.print(" inch");
delay(10);
}
```