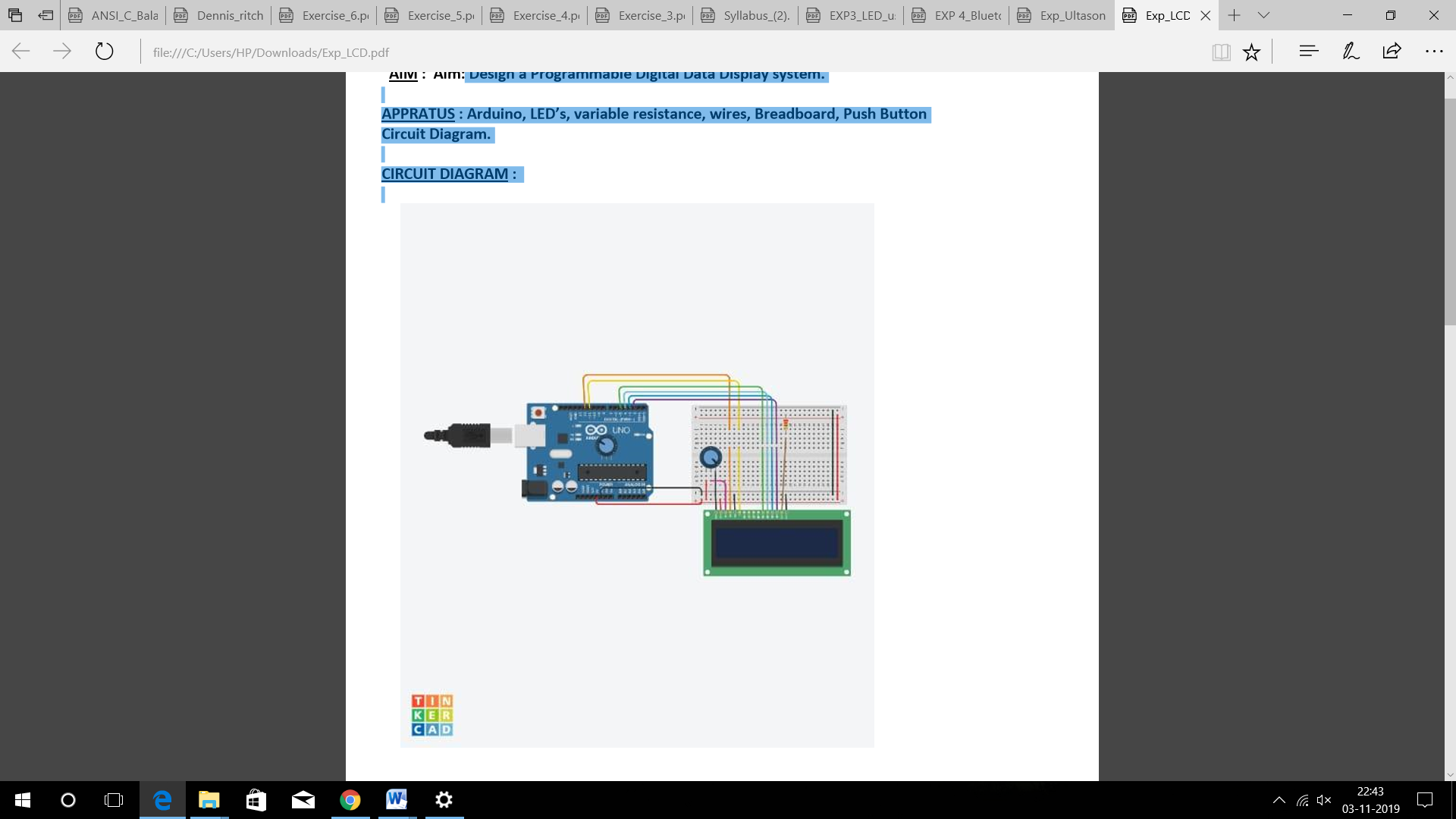
**Experiment-8**

**Aim**: Design a Programmable Digital Data Display system.

**Apparatus** : Arduino, LED’s, variable resistance, wires, Breadboard, Push Button Circuit Diagram.

**Circuit Diagram**:



**THEORY** : A liquid-crystal display (LCD) is a flat-panel display or other electronically modulated optical device that uses the light-modulating properties of liquid crystals. Liquid crystals do not emit light directly, instead using a backlight or reflector to produce images in color or monochrome.

**Program**:

#include <LiquidCrystal .h>

Const int rs = 12, en = 11,d4 =5 ,d5 =4,d6=3,d7=2;

LiquidCrystal lcd(rs,en,d4,d5,d6,d7);

Void setup()

{

lcd.begin(16,2);

Serial.begin(9600);

}

void loop ()

{

if (Serial.available())

{

delay(100);

lcd.clear();

while(Serial.available () > 0)

{

Lcd.write(Serial.read());

}

}

}

**LEARNING & OBSERVATION** :

1. Use of LCD and its functioning.

2. To connect LCD with arduino.

3. Always in circuit ground should always have least resistance.

4. Coding of LCR and its library function.

5.Use of ground and resistance in circuit.

**PROBLEM & TROUBLESHOOTING**:

1. Mistake in coding in statement.

2. Logical mistake happened in connection.