Worksheet 7

Name: Harshit Raj **UID:20BCS9266**
Subject:IOT LAB **Semester:6TH**
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Aim:

To display data generated by sensor on LCD using Arduino.

LCD:

A Liquid Crystal Display commonly abbreviated as LCD is basically a display unit built using Liquid Crystal technology. When we build real life/real world electronics based projects, we need a medium/device to display output values and messages. The most basic form of electronic display available is seven segment display, which has its own limitations. The next best available option is Liquid Crystal Displays which comes in different size specifications.

Components Required:

1x Raspberry PI (Raspberry Pi B+ with rasbian wheezy)
1x Arduino (I'm using the Arduino UNO)
1x LCD 16x2

Code:

```
#include "DHT.h"
#include <LiquidCrystal_I2C.h>

DHT
dhtSensor(sensorPin,DHT11);
LiquidCrystal_I2C tcd(0x27,16,2);
//0x27 is the address and other paramters are the dimensions

void setup()
{
  Serial.begin(9600);
dhtSensor.begin();
lcd.init();
lcd.backLight();
lcd.print("Hello
World 3"); }

void loop() {
  double temperature = dhtSensor.readTemperature();
  double humidity = dhtSensor.readHumidity();

  lcd.print("Temperature-");
  lcd.print(temperature);
```

```
  lcd.cursor(0,1); lcd.print("Humidity");lcd.print(humidity); lcd.clear();

  delay(2000);
}
```

Output: