# Description:

A simple program to demonstrate Digital Read and Write functions on the Iomatic IoT Development kit.

# Source Code:

// include the library code:

#include <LiquidCrystal.h>

// initialize the library with the numbers of the interface pins

LiquidCrystal lcd(11,12,14,15,16,17);

void setup()

{

//Set pin number 10 as digital out where relay 1 is connected

pinMode(10,OUTPUT);

//Set pin number 9 as digital out where relay 2 is connected

pinMode(9,OUTPUT);

//Set pin number 8 as digital out where relay 3 is connected

pinMode(8,OUTPUT);

//Set pin number 7 as digital out where buzzer is connected

pinMode(7,OUTPUT);

//Initialize the LCD in 16x2 mode

lcd.begin(16, 2);

delay(1000);

//Set cursor at first character/coloumn of first line/row

lcd.setCursor(0,0);

//Print the message as metioned cursor location

lcd.print(" IomaTic ");

}

void loop()

{

//In below sequence first set the cusrsor at specifil location to show message on LCD

//then write logic HIGH/LOW to ON/OFF the device connected on metioned IO pin

//------------------Device ON sequence

lcd.setCursor(1,1);

lcd.print("RELAY 1 ON ");

//Write digital HIGH on pin 10 i.e. generating 5v at pin 10 where relay 1 is connected

digitalWrite(10, HIGH);

delay(1000);

lcd.setCursor(1,1);

lcd.print("RELAY 2 ON ");

//Write digital HIGH on pin 9 i.e. generating 5v at pin 9 where relay 2 is connected

digitalWrite(9, HIGH);

delay(1000);

lcd.setCursor(1,1);

lcd.print("RELAY 3 ON ");

//Write digital HIGH on pin 68 i.e. generating 5v at pin 8 where relay 3 is connected

digitalWrite(8, HIGH);

delay(1000);

lcd.setCursor(1,1);

lcd.print("BUZZER ON ");

//Write digital HIGH on pin 7 i.e. generating 5v at pin 7 where buzzer is connected

digitalWrite(7, HIGH);

delay(1000);

//------------------Device OFF sequence

lcd.setCursor(1,1);

lcd.print("BUZZER OFF");

//Write digital LOW on pin 7 i.e. generating 0v at pin 7 where buzzer is connected

digitalWrite(7, LOW);

delay(1000);

lcd.setCursor(1,1);

lcd.print("RELAY 3 OFF");

//Write digital LOW on pin 8 i.e. generating 0v at pin 8 where buzzer is connected

digitalWrite(8, LOW);

delay(1000);

lcd.setCursor(1,1);

lcd.print("RELAY 2 OFF");

//Write digital LOW on pin 9 i.e. generating 0v at pin 9 where buzzer is connected

digitalWrite(9, LOW);

delay(1000);

lcd.setCursor(1,1);

lcd.print("RELAY 1 OFF ");

//Write digital LOW on pin 10 i.e. generating 0v at pin 10 where buzzer is connected

digitalWrite(10, LOW);

delay(1000);

}

# Libraries:

No additional libraries required.

# Functions:

pinMode(10,Output):

This sets pin number 10 as digital out for relay 1. Pin 9 and 8 are used as digital out for relay 2 and 3 respectively.

digitalWrite(10,HIGH):

Generates 5v to pin 10.

digitalWrite(10,LOW):

Generates 0v to pin 10.