ConnectedFlowers

Projet Plant+

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```
CREATE TABLE Les_plantes
    ( plantes_id INT NOT NULL/*Colonne ID*/
    , Nom_plante VARCHAR(50) NOT NULL/*Colonne nom*
    , Categorie_plante VARCHAR(1000) NOT NULL/*Colo
    , Description_plante VARCHAR(8000) NOT NULL/*Co
    , Periode_de_fleuraison VARCHAR(50) NOT NULL/*C
    , Photo_plante VARCHAR(250) NOT NULL/*Colonne p
    , Humidite_optimal_du_sol VARCHAR(50) NOT NULL/
    , Temperature_optimale VARCHAR(50) NOT NULL/*Co
    , Luminosite_optimale VARCHAR(50) NOT NULL/*Col
    )
    CHARACTER SET 'utf8';
```

```
CREATE TABLE historique
    ( ID INT AUTO_INCREMENT NOT NULL,
    Date_enregistrement DATETIME NOT NULL,
    Nom_plante VARCHAR(50) NOT NULL,
    Humidite VARCHAR(50) NOT NULL,
    Luminosite VARCHAR(50) NOT NULL,
    Temperature VARCHAR(50) NOT NULL,
    PRIMARY KEY (ID)
    )
    CHARACTER SET 'utf8';
```

Mise en place

Base de données

Mise en place

- Arduino

```
void loop() {
  float temp = sht31.getTemperature();
  float hum = sht31.getHumidity();
  float lightSensorValue = analogRead(0);
  float humSensorValue = analogRead(3);
  Rsensor=(float)(1023-lightSensorValue)*10/lightSensorValue;


  lightSensorValue = lightSensorValue / 1023;
  humSensorValue = (1023 - humSensorValue) / 1023;
/*
  if(Rsensor>thresholdvalue)
  {
    digitalWrite(ledPin,HIGH);
  }
  else
  {
  digitalWrite(ledPin,LOW);
  }
*/

  Serial.print("Humidite : ");
  Serial.print(humSensorValue);
  Serial.println(" %");

  Serial.print("Luminosite : ");
  Serial.print(lightSensorValue);
  Serial.println(" %");
  //Serial.println("LightSensor resistance value : ");
  //Serial.println(Rsensor,DEC);//show the light intensity on the serial monitor;
  Serial.print("Temperature : ");
  Serial.print(temp);
  Serial.println(" C");

  delay(1000);
}
```

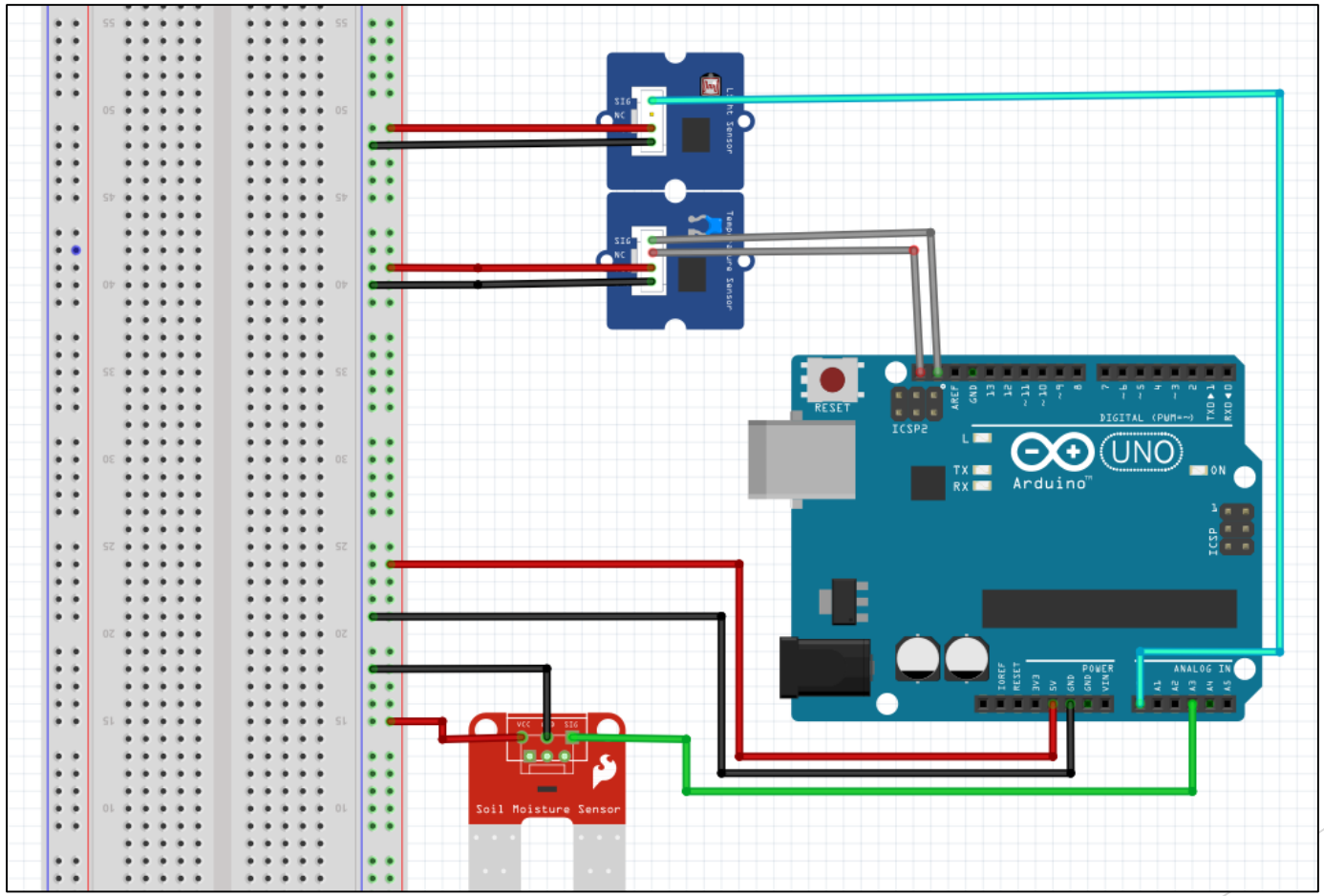
Mise en place

- Application Python

```python
def saveInBDD():  # Enregistre les données dans la BDD
    with open('./data.txt', 'r') as fichier:
        data = fichier.readlines()
        Date_enregistrement = data[0][:-1]
        Nom_plante = Nom_plantes[planteBDD.curselection()[0]]
        Humidite = data[2][:-1].split(' : ')[1]
        Luminosite = data[4][:-1].split(' : ')[1]
        Temperature = data[6][:-1].split(' : ')[1]

    cursor = mariadb_connection.cursor()
    try:
        query = "INSERT INTO historique (Date_enregistrement, Nom_plante, Humidite, Luminosite, Temperat
        cursor.execute(query)
        mariadb_connection.commit()
    except mariadb.Error as error:
        print("Error: {}".format(error))
    createTab()

def saveData(): # Enregistre les données captées par l'arduino dans un fichier et affiche ces données
    data = ""
    date = datetime.datetime.now()

    try:
        serial_port = serial.Serial(port = "COM5", baudrate=9600)

        serial_port.setDTR(False)
        time.sleep(0.1)
        serial_port.setDTR(True)

        serial_port.flushInput()

        with open('./data.txt', 'w') as fichier:
            for i in range(4):
                line = serial_port.readline().decode("utf-8")
                if line == "begin...\r\n":
                    line = date.strftime('%Y-%m-%d %H:%M:%S') + "\r\n"
                data += line
                fichier.write(line)
```

Mise en place

- Montage



Démonstration

Conclusion

Problèmes rencontrés

Pistes d’amélioration