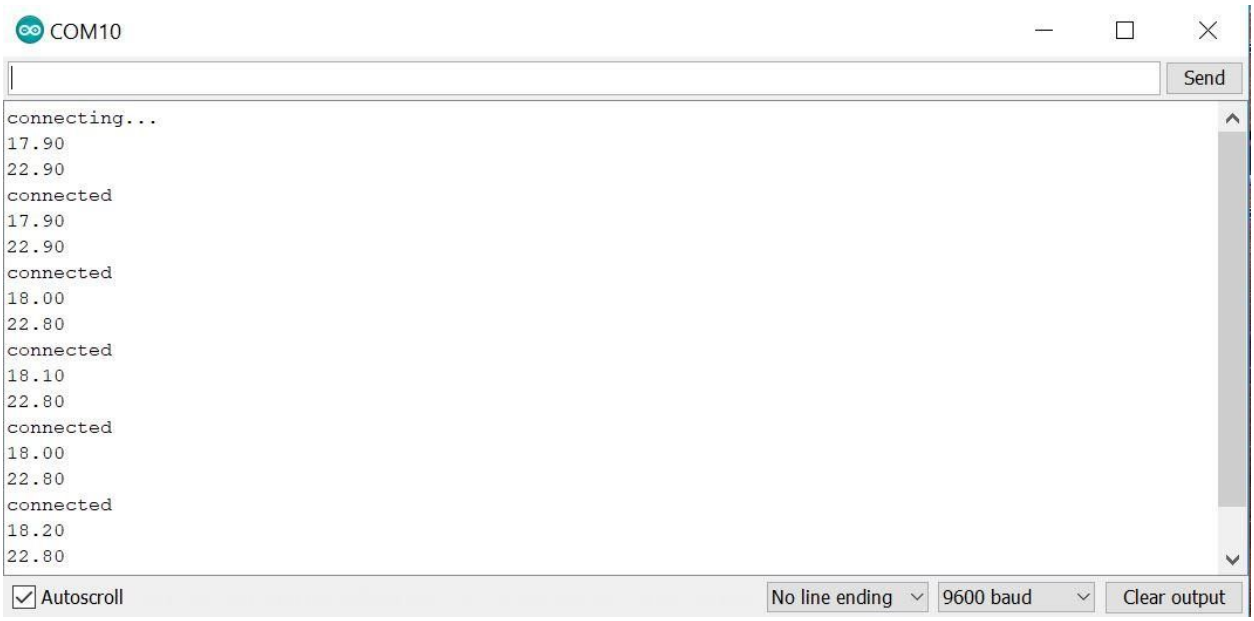
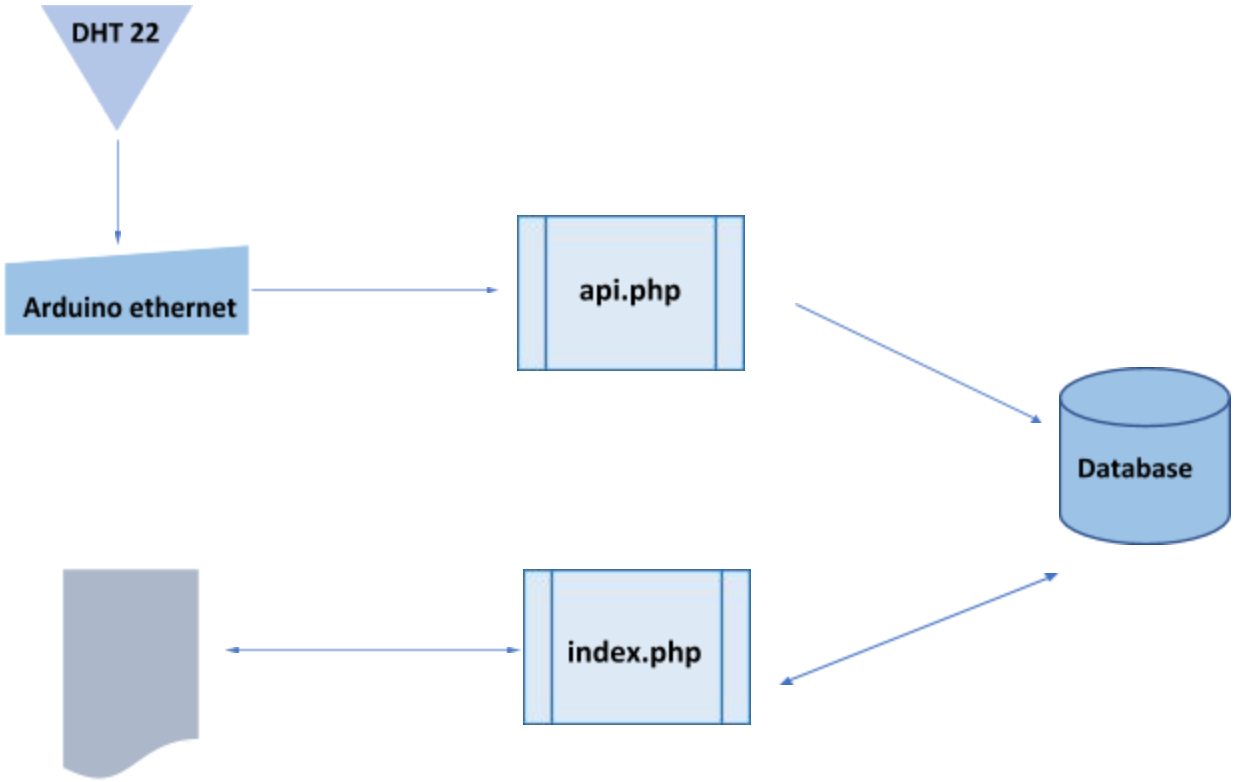
Arduino code:

```
#include <SPI.h>
#include <Ethernet.h>
#include <DHT.h>
#define DHTPIN 7
#define DHTTYPE DHT22   // DHT 22  (AM2302), AM2321
DHT dht(DHTPIN, DHTTYPE);
byte mac[] = { 0xDE, 0xAD, 0xBE, 0xEF, 0xFE, 0xED };
char server[] = "www.google.com";    // name address for Google (using DNS)
IPAddress ip(192, 168, 0, 177);
EthernetClient client;

void setup() {
  Serial.begin(9600);
  dht.begin();
  while (!Serial) {
    ; // wait for serial port to connect. Needed for native USB port only
  }
  // start the Ethernet connection:
  if (Ethernet.begin(mac) == 0) {
    Serial.println("Failed to configure Ethernet using DHCP");
    // try to congifure using IP address instead of DHCP:
    Ethernet.begin(mac, ip);
  }
  // give the Ethernet shield a second to initialize:
  delay(1000);
  Serial.println("connecting...");

  // if you get a connection, report back via serial:
}


void loop() {
    delay(60000);
  float h = dht.readHumidity();
  float t = dht.readTemperature();
  Serial.println(h);
  Serial.println(t);
  apiPost(String(h), String(t));

}

void apiPost(String humadity, String temprature ){
      if (client.connect(server, 80)) {
    Serial.println("connected");
    // Make a HTTP request:
    client.println("GET /api.php?t=" +temprature +  "&h=" +humadity +  " HTTP/1.1");
    client.println("Host: 34.227.118.133");
    client.println("Connection: close");
    client.println();
    while (client.connected()) {
      while (client.available()) {
        char c = client.read();
      }
    }
    client.stop();
  } else {
    // if you didn't get a connection to the server:
    Serial.println("connection failed");
  }
}
```

The result of the Arduino code (temperature and humidity result)




DHT 22
Arduino ethernet
api.php
Database
index.php

api.php

```php
<?php
$servername = "localhost";
$username = "root";
$password = "team15";
$dbname = "Dashboard";
$temp = $_REQUEST['t'];
$humi = $_REQUEST['h'];
date_default_timezone_set('EST');
$date =date('Y-m-j');
$time = date('G:i:s');

try {
    $conn = new PDO("mysql:host=$servername;dbname=$dbname", $username, $password);
    // set the PDO error mode to exception
    $conn->setAttribute(PDO::ATTR_ERRMODE, PDO::ERRMODE_EXCEPTION);
    $stmt = $conn->prepare("INSERT INTO sensorData(temperature, humidity, date, time) VALUES (:temp, :h, :d, :t)");
    $stmt->bindParam(":temp", $temp);
    $stmt->bindParam(":h", $humi);
    $stmt->bindParam(":d", $date);
    $stmt->bindParam(":t", $time);

    $stmt->execute();
    echo "New record created successfully";
    }
catch(PDOException $e)
    {
    echo $sql . "<br>" . $e->getMessage();
    }

$conn = null;
?>
```

Seeing the database table from the console:

```
[ec2-user@ip-172-31-83-3 html]$ mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 4163
Server version: 5.6.38 MySQL Community Server (GPL)

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
```

```
mysql> use Dashboard;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
```

```
mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| Dashboard          |
| log                |
| mysql              |
| performance_schema |
+--------------------+
5 rows in set (0.00 sec)
```

```
mysql> Show tables;
+---------------------+
| Tables_in_Dashboard |
+---------------------+
| sensorData          |
+---------------------+
1 row in set (0.00 sec)
```

```
mysql> Select * from sensorData;
+----+-------------+----------+------------+----------+
| id | temperature | humidity | date       | time     |
+----+-------------+----------+------------+----------+
| 10 | 22.80       | 18.50    | 2018-02-14 | 16:50:42 |
| 11 | 22.80       | 18.50    | 2018-02-14 | 16:51:42 |
| 12 | 22.80       | 18.50    | 2018-02-14 | 16:52:43 |
| 13 | 22.80       | 18.50    | 2018-02-14 | 16:53:43 |
| 14 | 22.80       | 18.50    | 2018-02-14 | 16:54:44 |
| 15 | 22.80       | 18.50    | 2018-02-14 | 16:55:44 |
| 16 | 22.90       | 18.60    | 2018-02-14 | 16:56:45 |
| 17 | 22.80       | 18.50    | 2018-02-14 | 16:57:45 |
| 18 | 22.80       | 18.50    | 2018-02-14 | 16:58:46 |
+----+-------------+----------+------------+----------+
9 rows in set (0.00 sec)
```

Index.php code:

```php
<?php
$servername = "localhost";
$username = "root";
$password = "team15";
$dbname = "Dashboard";
$myResult=[];
try {
    $conn = new PDO("mysql:host=$servername;dbname=$dbname", $username, $password);
    $conn->setAttribute(PDO::ATTR_ERRMODE, PDO::ERRMODE_EXCEPTION);
    $stmt = $conn->prepare("SELECT * FROM sensorData");
    $stmt->execute();
    $result = $stmt->setFetchMode(PDO::FETCH_ASSOC);
   $myResult = $stmt->fetchAll();

}
catch(PDOException $e) {
    echo "Error: " . $e->getMessage();
}
$conn = null;
?>
```

```php
  <div class="container">
    <h2>Hover Rows</h2>
    <p>The .table-hover class enables a hover state on table rows:</p>
    <table class="table table-hover">
      <thead>
        <tr>
          <th>Index</th>
          <th>Humidty</th>
          <th>Temprature</th>
          <th>Date</th>
          <th>Time</th>
        </tr>
      </thead>
      <tbody>
        <tr>
        <?php
        foreach($myResult as $_result) {
          echo "<tr><td>" . $_result['id']. "</td>";
          echo "<td>" . $_result['temperature']. "</td>";
          echo "<td>" . $_result['humidity']. "</td>";
          echo "<td>" . $_result['date']. "</td>";
          echo "<td>" . $_result['time']. "</td></tr>";

        }
        ?>
        </tr>
      </tbody>
    </table>
  </div>

  </body>
  </html>
```

Index.php result:

http://34.227.118.133/index.php

Dashboard

Temperature and Humidity for room C505

Index	Humidty	Temprature	Date	Time
10	22.80	18.50	2018-02-14	16:50:42
11	22.80	18.50	2018-02-14	16:51:42
12	22.80	18.50	2018-02-14	16:52:43
13	22.80	18.50	2018-02-14	16:53:43
14	22.80	18.50	2018-02-14	16:54:44
15	22.80	18.50	2018-02-14	16:55:44
16	22.90	18.60	2018-02-14	16:56:45
17	22.80	18.50	2018-02-14	16:57:45
18	22.80	18.50	2018-02-14	16:58:46
19	22.80	18.50	2018-02-14	16:59:46
20	22.90	18.60	2018-02-14	17:00:47
21	22.80	18.50	2018-02-14	17:01:47