

Aaron Perkel
CS2210
11/10/23
Lab 08

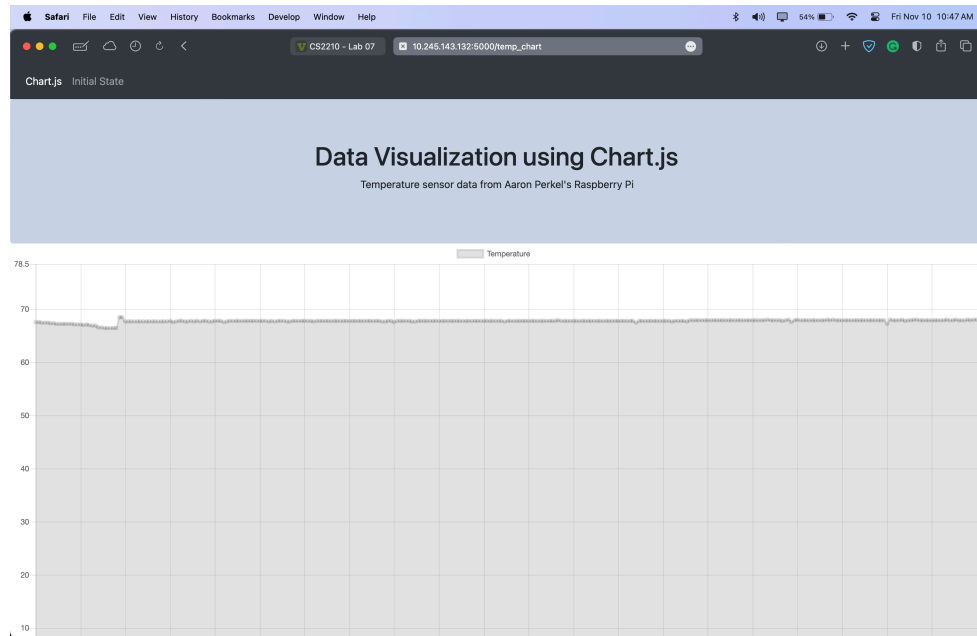
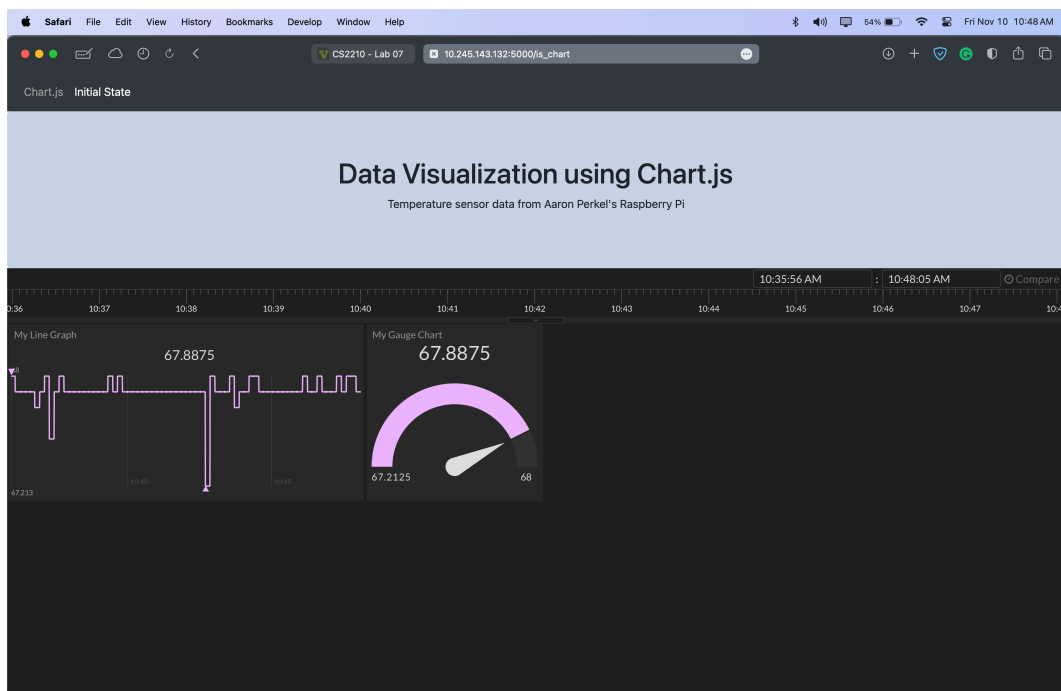


Chart.js



Initial State

```

from flask import *
import mysql.connector
import json
import sys

app = Flask(__name__)

credentials = json.load(open("credentials.json", "r"))

@app.route('/', methods=['GET'])
def temp():
    database = mysql.connector.connect(
        host=credentials["host"],
        user=credentials["user"],
        passwd=credentials["password"],
        database=credentials["database"]
    )
    cursor = database.cursor()
    since_timestamp = request.args.get("since")
    print(since_timestamp)
    if since_timestamp is None:
        since_timestamp = "0"
    cursor.execute("SELECT * FROM Temperature_data WHERE timestamp > " + since_timestamp + ";")
    data = cursor.fetchall()
    cursor.close()
    database.close()
    return json.dumps(data)

@app.route('/', methods=['GET'])
def default():
    return redirect(url_for('temp_chart'))

@app.route('/temp_chart', methods=['GET'])
def temp_chart():
    return render_template("temp_chart.html", name="Aaron Perkol")

@app.route('/is_chart', methods=['GET'])
def is_chart():
    return render_template('is_chart.html', name="Aaron Perkol")

```

app.py

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Temperature Chart</title>

  <!-- Include Bootstrap -->
  <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/css/bootstrap.min.css">
</head>
<body>
  <!-- Bootstrap navigation bar -->
  <nav class="navbar navbar-expand-sm bg-dark navbar-dark">
    <ul class="navbar-nav">
      <li class="nav-item">
        <a class="nav-link" href="/temp_chart">Chart.js</a>
      </li>
      <li class="nav-item active">
        <a class="nav-link" href="/is_chart">Initial State</a>
      </li>
    </ul>
  </nav>

  <!-- Bootstrap jumbotron for title. {{name}} from Flask app -->
  <div class="jumbotron text-center" style="margin-bottom:0; background-color:#c8d6e4;">
    <h1>Data Visualization using Chart.js</h1>
    <p>Temperature sensor data from {{name}}'s Raspberry Pi</p>
  </div>

  <!-- Canvas target for JavaScript chart to display -->
  <div class="embed-responsive embed-responsive-16by9"><iframe src="https://iot.app.initialstate.com/embed/#/tile/bkt_55zng8losrzddb"></iframe></div>

  <!-- Table to display data (styled with Bootstrap) -->
  <main role="main" class="container">
    <table class="table table-striped table-hover">
      <thead>
        <tr>
          <th>ID</th>
          <th>Timestamp</th>
          <th>Value (&deg;F)</th>
          <th>Value (&deg;C)</th>
        </tr>
      </thead>
      <tbody id="temp_tbody"></tbody>
    </table>
  </main>

  <!-- Footer (styled with Bootstrap). {{name}} from Flask app -->
  <div class="jumbotron text-left" style="margin-bottom:0">
    <p>&copy; {{name}} [CS 121]</p>
  </div>

  <!-- Include jQuery, Chart.js and local JavaScript chart file -->
  <script src="https://code.jquery.com/jquery-3.3.1.min.js"></script>
  <script src="https://cdnjs.cloudflare.com/ajax/libs/Chart.js/2.7.2/Chart.bundle.min.js"></script>
  <script src="/static/temperature_chart.js"></script>
</body>
</html>

```

is_chart.html