**Expected Data Models**

User {

Id: Number/Key,

FirstName: String,

LastName: String,

Email: String,

Password: String, // Salted hash

Salt: String

Sensors: Array of Sensor IDs,

}

Sensor {

Id: Number/Key,

Name: String,

Description: String,

Type: ?, // Type safe enumeration

Source: ?,

Format: ?, // View object

Data: ?, // Specify a date structure. ISO 8601/Posix timestamp milli

Status: String, // Make this some type safe enum

HistoricalStatus: Array of Numerical Values,

…other metadata

}

**Expected Endpoints**

Registration Endpoint

POST /register

Request: {

User

}

Response: {

Token: HTTP Basic Authorization Token,

Success: Boolean,

Error message: String,

} // HTTP Response Code

Authentication Endpoint

POST /login

Request: {

Email: String,

Password: String/Hash,

}

Response: {

User,

Token: HTTP Basic Authorization Token, // Look into JTokens

Success: Boolean,

Error message: String,

}

Sensor Endpoint:

GET /sensor?sensorId={id}

Authorization: basic <token>

Response: {

Sensor where Sensor.Id = id

}

Add Sensor Endpoint:

POST /add-sensor

Authorization: basic <token>

Request: {

Sensor

}

Response: {

Success: Boolean,

ErrorMessage: String,

SensorId: Numerical/Key,

}

Edit Sensor Endpoint:

POST /edit-sensor?sensorId={id}

Authorization: basic <token>

Request: {

Sensor

}

Response: {

Success: Boolean,

ErrorMessage: String,

}

Delete Sensor Endpoint

POST /delete-sensor?sensorId={id}

Authorization: basic <token>

Response: {

Success: Boolean,

ErrorMessage: String,

}

Requirements from the backend to properly retrieve and display data.

**Registration Page**

* Get: Status of user email (already registered or not)
* Post: User information (email + password)

**Authentication Page**

* (Get / Post ? ): User authentication information
* Get: Results of authentication
* Get: Relevant User information

**Dashboard Page**

* Get: Sensor Description (Name / Description / Source)
* Get: Sensor Data per sensor (audio, visual, numerical)
* Get: Sensor Status (real time)
* Get: Sensor Status (historical)

**Individual Sensor Page**

* Get: Sensor Description (Name / Description / Source)
* Get: Sensor Data (audio, visual, numerical)
* Get: Sensor Status (real time)
* Get: Sensor Status (historical)

**Sensor Editing Page**

* Post: Sensor Description (Name / description / source)
* Get: List of sensors
* Get: Preview of Sensor data (maybe?)

**Sensor Adding Page**

* Post: Sensor Description (Name / description / source)
* Get: List of sensors
* Get: Preview of Sensor data (maybe?)