

APIs for project.

1. GPS Data API

The APIs will be responsible for receiving GPS data from IoT devices.

- **Endpoint:** POST /api/v1/gps-data
- **Payload:**

```
{
  "deviceId": "string",
  "timestamp": "ISO_8601_string",
  "latitude": "number",
  "longitude": "number",
  "speed": "number"
}
```
- **Response:**

```
{
  "status": "success",
  "message": "Data ingested successfully"
}
```

2. Train Information API

Handles fetching real-time and historical train location data.

I. Retrieving real-time location data of all trains.

- **Endpoint:** GET /api/v1/trains
- **Response:**

```
[
  {
    "trainId": "string",
    "latitude": "number",
    "longitude": "number",
    "speed": "number",
    "lastUpdated": "ISO_8601_string"
  }
]
```

II. Retrieving real-time location data for a specific train.

- **Endpoint:** GET /api/v1/trains/{trainId}

- **Response:**

```
{
  "trainId": "string",
  "latitude": "number",
  "longitude": "number",
  "speed": "number",
  "lastUpdated": "ISO_8601_string"
}
```

III. Retrieve historical location data for a specific train for the last 90 days.

- **Endpoint:** GET /api/v1/trains/{trainId}/history

- **Response**

```
[
  {
    "timestamp": "ISO_8601_string",
    "latitude": "number",
    "longitude": "number",
    "speed": "number"
  },
  ...
]
```