## User Authentication:

Client signs in with a google account. Calls to Google API are made to authorize and a JSON Web Token (JWT) is retrieved. Information within this token include a sub field that is a globally unique identifier for Google Accounts, email which is the user’s email address, and name which is the user’s full name. These are checked with stored information within the user table in the database so that any stored information within the database linked to the account, like itineraries, can be retrieved when needed.

## Search Location

Client inputs their travel destination. The server makes a call to the TripAdvisor API using the location and the selected category (Lodging, Dining, Attractions) and returns an array of nearby locations. These locations are then used to display location cards on the Create Itinerary page and for building a user’s itinerary. When clicking on these cards, the locationID associated with that location is passed to the server to make an additional call to TripAdvisor to retrieve additional details on that location like descriptions, ratings, images, etc. so that they may be displayed within a window that appears once a card is clicked.

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## Save Itinerary

The current itinerary being built is passed to the server to be saved on the database. The Itinerary’s name, travel destination, and dates are saved. Any locations part of that itinerary are then passed to be stored within the locations table. The TripAdvisor API LocationId, dates, and time are stored.

{

“name”: “string”,

“travelDestination: “string”,

“startDate”: “string”,

“endDate”: “string”,

“Locations:” [

{

“tripID”: int,

“startDate”: “string”,

“endDate”: “string”,

“startTime”: “string”,

“endTime”: “string”

}

]

}

## View Itineraries

The server queries that database for all stored itineraries associated with the current user signed in. The information for each of these itineraries are selected, such as itinerary name, travel destination, start date and end date. This information is passed to the client so that their itineraries may be displayed. When viewing specific itineraries, the server queries for the locations associated with that itinerary’s id and returns their information, such as the TripAdvisor’s LocationID and the time and date for these locations. The locationID is used to make a call to TripAdvisor’s API and retrieve location details for each location, such as name, address, and description.

{

“Itineraries”: [

{

“itineraryID”: int,

“nane”: “string”,

"travelDestination”: “string”,

“startDate”: “string”,

“endDate”: “string”

]

}