Data Structure Definitions

Addition 1: To implement the idea of storing trip details that correspond to each trip id, I will use a Redis hash data structure. The key will be “trip_id” will be the identifier for each trip, this will be used as a key. The value will be “trip_details” which is a dictionary that contains the details of the trip, for example “{'destination': 'Paris', 'date': '2024-05-01', 'duration': '5 days'}”.

Addition 2: To implement the functionality for tracking the "Most Viewed Properties" within our application, I will utilize the Redis sorted set data structure. The key named "mostViewedProperties" will serve as the identifier for this data set. For the values, I will store the property IDs, which will be the members of the sorted set. The score, which represents the number of views, will be associated with each property ID. For instance, if property ID "property123" has been viewed ten times, it will be stored in the sorted set with a score of 10. The structure will thus be "mostViewedProperties" as the key, and the values will be a set of property IDs with their respective view counts, like {('property123', 10), ('property456', 5), ...}. This will enable us to quickly retrieve the most popular properties by their view counts in an efficient manner.