

To address the above described problem, I will use Foursquare APIs to create a list of suggested hotels, resorts, tourist attractions, restaurants & shopping areas.

The end product will accept the coordinates of the destination airport or railways station or any famous location.

Based on that, I will use the Foursquare API's "explore" endpoint to get recommendations for hotels & resorts. The recommendation will contain up-to 10 suggestions within 5km radius by default, both of these numbers can be changed by user by passing arguments.

e.g. of API call:

```
url_e =
'https://api.foursquare.com/v2/venues/explore?&client_id={}&client_secret={}&v={}&ll={},{}&radius={}&limit={}'.format(
    cli_id,
    cli_scart,
    version,
    lat,
    lng,
    radius,
    limit)
```

For each hotel recommendation up-to 5 near by restaurants suggestions will be provided, which will be fetched by using the Foursquare API's "search" endpoint which will use "checkin" parameter to decide the popularity.

The user can provide a list having types of restaurant he/she is interested in (e.g. Sushi Restaurant etc.) and price range as well. The price points will be [1,2,3,4], 1 being the least expensive, 4 being the most expensive and it will depend on the coverage provided by the Foursquare API.

e.g. of API call :

```
url_t =
'https://api.foursquare.com/v2/venues/trending?&client_id={}&client_secret={}&v={}&ll={},{}&radius={}&limit={}'.format(
    cli_id,
    cli_scart,
    version,
    lat,
    lng,
    radius,
    limit)
```

The product will also suggest up-to 20 recommended & popular spots within a radius on 10km using the combination of Foursquare API's "explore", "trending" & "search" endpoints.

e.g. of code :

```
df_exp_trnd_src = pd.concat([nearby_venues, trending_venues, search_venues]).drop_duplicates()
```

Since the application is intended to be dynamic where the data changes with the input from the user, I am not pushing any pre-compiled data on the Github. I will fetch the recommendations & trending locations dynamically at the time of application creation using Foursquare APIs.