

## Problems to be solved

1. Don't want to miss an attraction when it is close.
2. Plan a single day's activities by proximity
3. Other potential problems that can be solved (future scope):
  - Make vacation easier
    - More pleasant orientation when in a new city
    - improve travel experience
  - Don't want to miss an attraction when it is close.
    - Set a maximum radius from user location and the app show the attractions inside this radius.
    - Inform the user about business hours of the attractions marked as favorite.
  - Plan a single day's activities by proximity
  - Objective/Factual description of places by people who have been there
    - Not opinions or emotional responses or stories their specific situations
    - Include recommended amount of time to spend in each place
  - Trip optimization
  - Place recommendation based on current location and user preferences

## How you plan to solve it with your app

1. Don't want to miss an attraction when it is close.
  - User specifies the places they want to visit and inputs it into the app.
  - User specifies a distance/time to arrive/radius to attraction that will be used to determine when they should be alerted.
  - When the user is in the city that they are visiting, the app will calculate the distance to the specified locations (or a subset of them).
  - When at least one of the attractions is nearby, the user will receive a notification/ring/vibrate
  - When the user looks at the phone/app they will see a map with pins indicating the location of interest annotated with distance/time to arrive.
2. Plan a single day's activities by proximity
  - User specifies the places they want to visit and inputs it into the app.
  - User opens the app. It shows the current location of the user.
  - User will switch the app to "Planning mode".
  - User will use a gesture to select a city area.
  - The app will display the map zoomed to the selected area with pins indicating the attractions within the area that the user is interested in.
  - The app will calculate a route between the locations with suggested time spent at each place.

## List of User stories (in order of priority)

- As a user I want to choose the city (NYC, London and Vancouver) and in the city I want to select all the attractions (pre-listed and grouped by categories) I want to visit.
  - UITableView to list cities and list attractions
  - Data Persistence: Core Data or Realm
  - API: <https://developers.google.com/places/ios-api/start>
  - For Paid Version of app: <https://developer-tripadvisor.com/content-api/>
- As a user I want to be notified (ringtone, notification msg, vibration) when I'm within a set distance or travel time of a point of interest that I previously selected.
  - Geolocation: Core Location library with background updates
  - Notification: NSNotificationCenter
- As a user I want to see the attractions that I choose in a list format or in a map (with annotations).
  - UITableView
  - MKMapView, MKAnnotationView (MapKit)
- As a user I want to search places to visit in the city.
  - UISearchBar, UISearchController
- As a user I want to see the details about the place (phone, address, business hours)
- As a user I want to see recommendations of nearby places that I did not select but have similar relevance as my selected locations.

## A list of all your entities and their relationships (if you're using Core Data)

- Cities
  - one-to-many: Locations
- Locations
  - many-to-one: City
  - many-to-one: User
- User
  - one-to-many: Locations