

# Application Development for Mobile and Ubiquitous Computing

reMYnd\_PLACES

Adaptation Concept Presentation

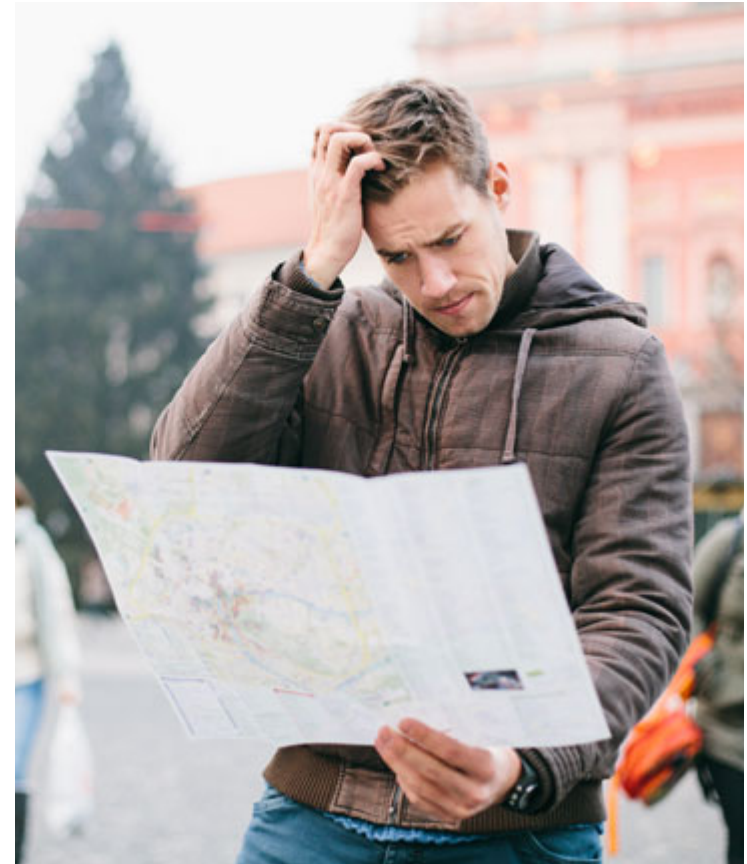
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Imagine you go to Rome to visit someone...

- You always wanted to visit that special place (shoe shop, museum, street etc..) but you would never go to Rome just for this reason...
- Use the opportunity and don't miss it!

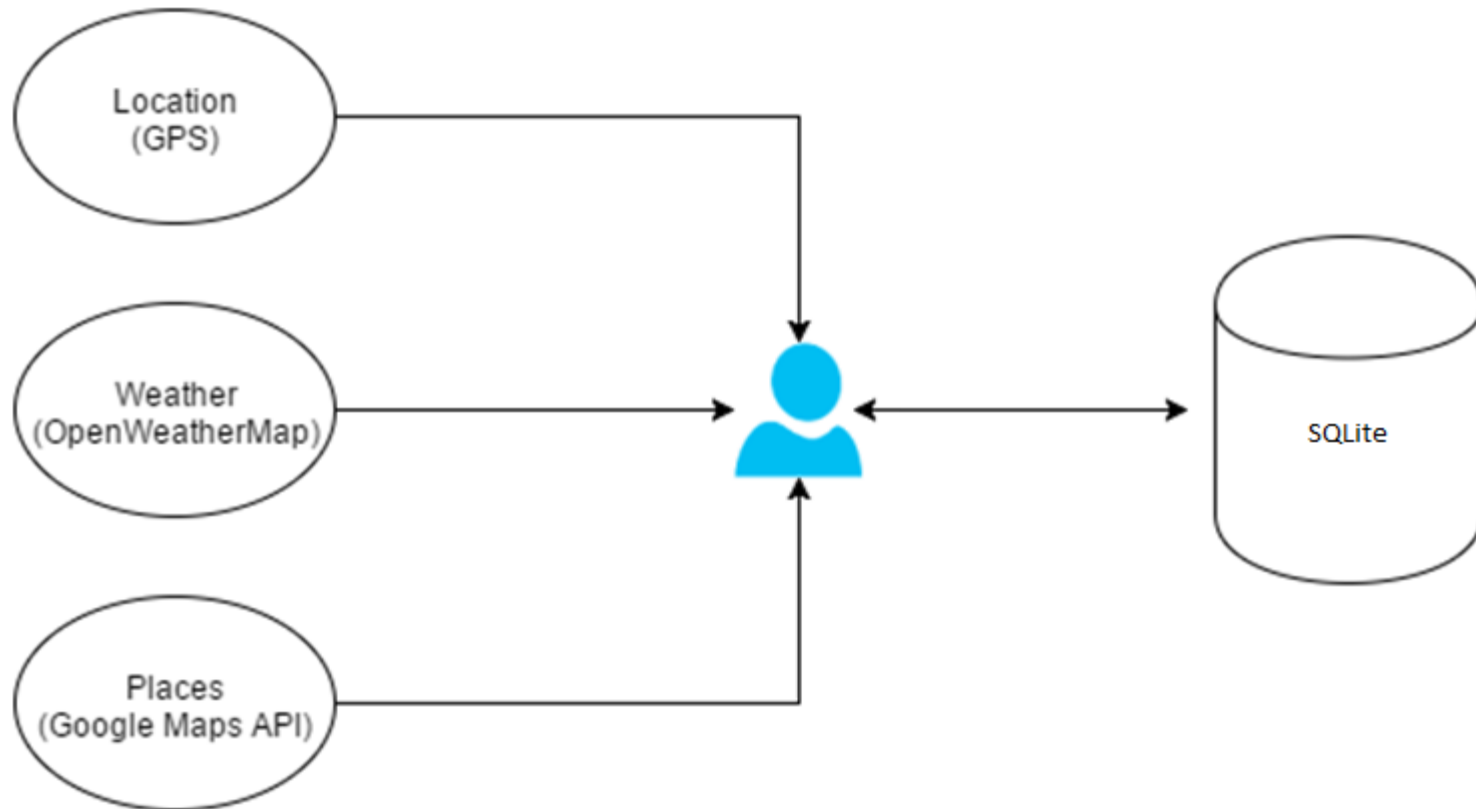


- User is able to save POIs he wants to visit one day, all around the world. (Like "PINTa bar" or "Großer Garten"...)
- The POIs will be grouped to the folders according to the location of the place
- The application evaluates categories of the saved POIs, actual user location, time of the day, as well as opening hours of some saved POIs, if relevant, and weather, if relevant.
- If the user location is in a set radius from one of the saved POIs, he gets a notification if some requirements fulfilled.

## Example

- The user will get notified about an ice café he saved nearby, if the weather is warm/hot
- If it is rainy he won't get a notification, as well as if the saved place is closed at the time the user is passing by





- Android OS (Android Studio)
- Google Maps API/ Google Places API
- Geocoder
- Open Weather Map
- GPS for location tracking
- SQLite Database

## **Offline use**

User location, day time as well as data of saved POIs is available offline, so that the user can get notifications. Weather data will be in offline modus omitted

## **Usability**

Interface is clear, intuitive and easy to use

## **Rationality of notifications**

Saved POIs will be evaluated on their category

## Content Adaptation

### Object of Adaptation

- Current situation based on
  - User location
  - Location of the POI
  - Category of the POI (museum, bar...)
  - Opening hours of the POI
  - Weather (if relevant)



## Content Adaptation

### Target of adaptation

- user preferences, current situation
- User gets notifications depending on the current situation

## Time of the day

### Sensor / API

- Google Places API (Information about the place, opening hours)
- current time of android device

### Adaptation

- opening hours of the place
- category of the POI

## Time of the day

Google Places API call :

- `PlaceDetectionApi.getCurrentPlace()` returns a Place Object, which contains easy to access information
- `getName()`
- `getAdress()`
- opening hours, rating, phone number ...

## Weather

### Sensor / API

- OpenWeather API
- Cold outside ? Too hot outside?
- rainy weather or sunshine ?

### Adaptation

- get a warm coffee if it is cold
- get a tasty icecream if it is too hot

## Weather

- As AsyncTask
- Simple API-call :  
[api.openweathermap.org/data/2.5/weather?q=London](http://api.openweathermap.org/data/2.5/weather?q=London)
- API call return JSON data
- JSON-Parser creates Weather object
- Easy access of different weather informations

- Adaptation concept - 11.12.2015
- First Prototype - 21.12.2015
- Begin of testing - 11.12.2015
- Final presentation - 27.01.2016

