

Department of Computer Science Institute for System Architecture, Chair for Computer Networks

Application Development for Mobile and Ubiquitous Computing

Seminar Task
Adaptation Concept Presentation

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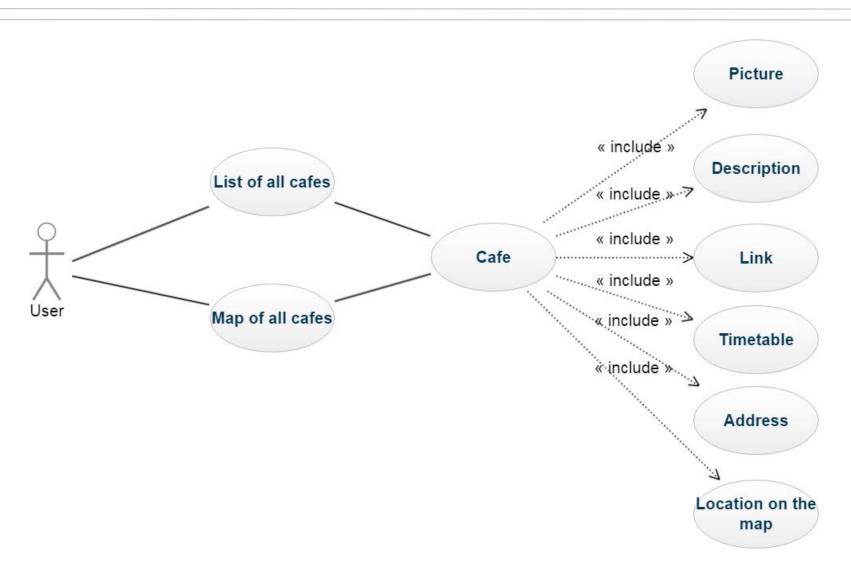


Application Scenario

- Provide a list of good cafes in Dresden. It will be possible to sort this list by name or by distance.
- •Show location of cafes on the map, location of the user and time that user need to spend to walk to nearest cafes.
- •For each cafe provide a pictures, description, link to facebook page or web-site, timetable, the exact address and location on the map.



Use Cases





Adaption and Context

Prefetching

Description:

• When user scrolling list of first 10 cafés and he is currently on 7th, start to download list of next 10 cafes (and so on).

Realization:

- Order provided cafes according to distance from user current location
- User location and distance calculation provided by Google Map
- Triggering of prefetching by initial start of application



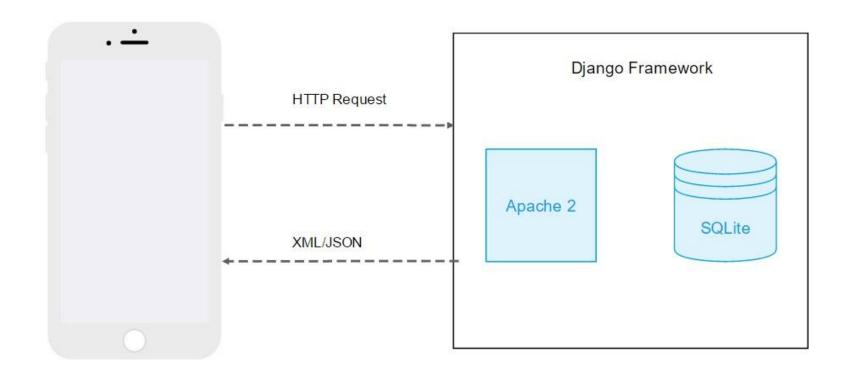
Adaption and Context

Adaptation to Screen Size

- Constraint mechanism to scale components according to screen size
- According to landscape or portrait mode different features will be designed



Architecture





Technologies

- Frontend
 - Programming language: SWIFT
 - Database: CoreData
- Backend Django framework:
 - Programming language: Python
 - Database: SQLite3
 - Server: lightweight Web server (for testing), Apache2
- Maps: Google Maps



Work Plan

- 16.12.2016 Adaptation concept presentation
 - Construct database
 - First Prototype
 - Polishing and bug fixing
 - Documentation

27.01.2017 - Final presentation



Thank you for attention!