

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

# Application Development for Mobile and Ubiquitous Computing

"RemindMe" Third Presentation

> Group Nr. 17 Norbert Harder





 Idea: Application for Location based Notifications



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- Useful for:

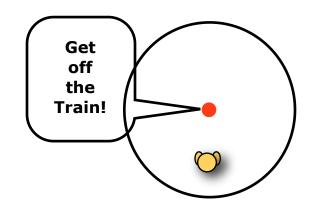


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- Useful for:
  - reminding you of doing sth. at a specific location





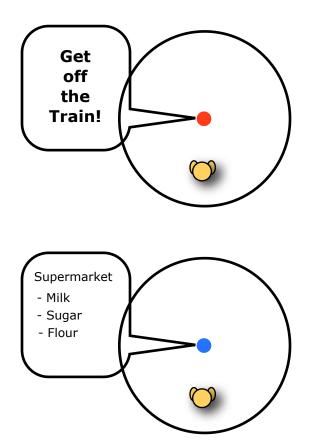
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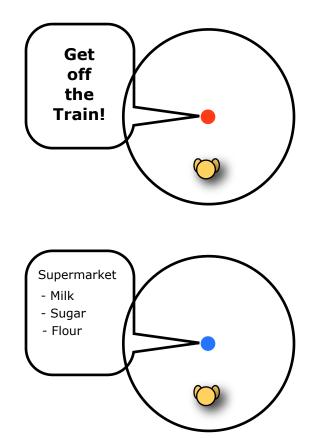
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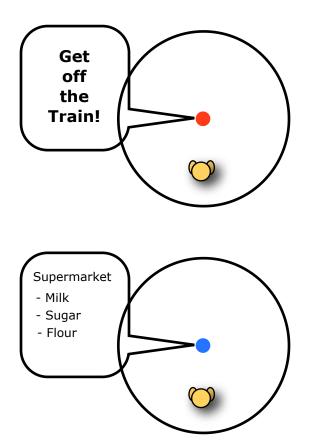
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  - ...
- (Possible extension with Server Side Component for sharing of locations and todo-lists)







#### Concept in Detail



**Defining Locations** 



**Defining Notifications** 



**View Based On Location** 



#### **Application Features**

- Currently Implemented
  - Definition of Locations
  - Creation of Notifications
  - Activate / Deactivate Notifications
  - Notifications be activated on specific days of the week
  - ToDo Lists / Location based View
- Planned
  - Notifications can depend on a specific time and conditions
  - ToDo-Lists for Notifications
  - Location based View



#### **Application Features**

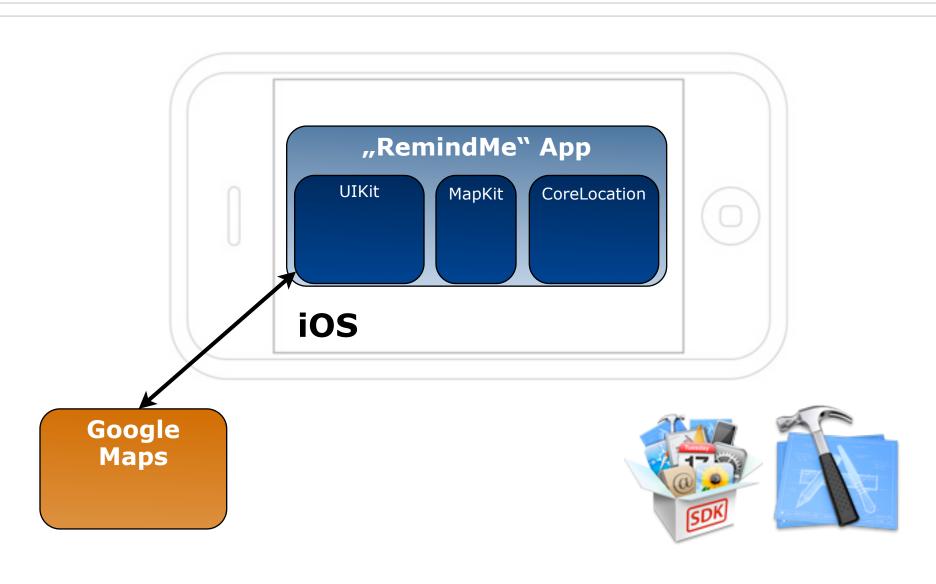
#### **Short Demo**



- implemented as local iPhone Application
  - iOS 4.1 / 4.2
  - Objective C
  - XCode IDE
- (possibility of extension with a server component for sharing locations and todolist between multiple phones)









- Platform Specific Challenges
  - Objective C Language
  - Memory Management
- General Challenges
  - Battery Consumption due to extensive use of GPS
    - choosing right update interval
    - trade-off between accuracy and power consumption
    - running in Background
  - Usability
    - displaying the user the information he needs
    - editing and creation of notifications
    - consistent behavior





- now Beginning of November
  - getting an Overview about the iOS SDK, Objective-C and necessary Frameworks

- till 17.12.2010
  - Prototype with the essential functionality:
    - Possibility to define locations
    - Warning when approching that locations
    - Simulation-Mode





- till 04.02.2011
  - GUI improvements
  - Location based View
  - ToDo Lists
  - conditional Notifications
- future
  - testing on real device
  - testing of background functionality
  - bug fixing