

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

Application Development for Mobile and Ubiquitous Computing

Task 6: Location-Aware Scheduler First Presentation

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- A student's life typically is full of tasks to do
- Using your time is essential → what if your smartphone could help you to schedule your tasks?
 - Fit all the tasks in your regular schedule
 - Not only time-based, but location-based approach
 - Phone can remember you which task might be desirable to do now
 - (optional) Application is aware of public transportation



Application Scenario

- All tasks are organized in a simple List
- You can filter for predicates like deadline or place





Application Scenario

- Tasks are automatically scheduled to fit into your regular timetable
- Scheduling takes place in consideration of the different locations of every entry





- Map displays location of task,
- nearby entries in your schedule
- a route the system recommends you





- Platform: Android 2.1 or newer
- Available on a vast variety of devices (mostly smartphones)
- Rapidly growing amount of applications
- Use of services like Google Maps or Google Calendar





- Use GPS to determine position
- Use of Internet connection
 to calculate routes, fetch
 map images and synchronization
 with your Google Calendar
- Let Android decide whether to use WIFI or UMTS





- User interface
 - Must be very easy to use
 - Use the small screen wisely
- Battery life
 - Frequent use of GPS and WIFI drains batteries quickly
- User acceptance
 - User must not feel patronized by the suggested schedule
- (optional) Public transport awareness
 - VVO doesn't provide any public API



- 11/07/2010: End of planning period
- 11/27/2010: First prototype with GUI and some functionality
- 12/17/2010: Basic features implemented
- 01/14/2011: Advanced features implemented
- 01/28/2011: almost free of bugs, tested under working conditions
- 02/04/2011: Optimized and documented stable release