



Application Development for Mobile and Ubiquitous Computing

Task 6: Location-Aware Scheduler Second Presentation

Group 6
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- A student's life typically is full of tasks to do
- Using your time is essential
 - your smartphone can 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

Scheduling

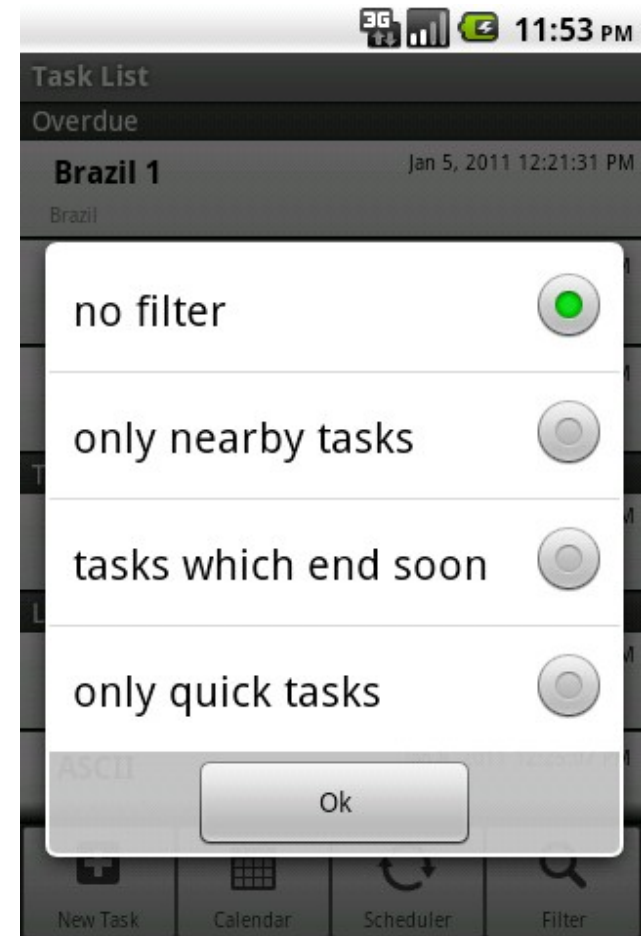
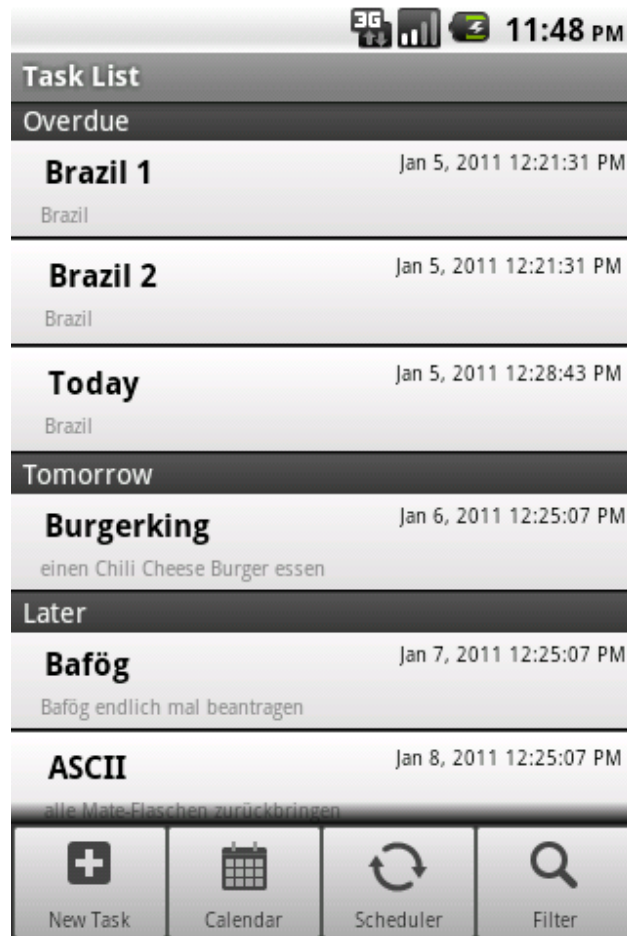
- 1) take all task of the next 48 hours
- 2) take all events of the next 48 hours
- 3) get all nearby tasks (500 meters)
- 4) put all possible tasks between two events
 - if there is a gap put nearby tasks into it



The screenshot shows a mobile application interface with a status bar at the top displaying signal strength, battery level, and the time 8:08 PM. The main content is a list of tasks and events, each with a title, date, and time, and a brief description. The tasks are:

- Schedule** (header)
- Meeting for Presentation** (6. Januar 2011 20:34)
Prepare Application Development in Mobile and Ubiquitous Co...
- Today** (6. Januar 2011 20:08)
Brazil
- Burgerking** (7. Januar 2011 20:04)
einen Chili Cheese Burger essen
- Cinema** (6. Januar 2011 23:04)
we have cards for this movie
- Bafög** (8. Januar 2011 20:04)
Bafög endlich mal beantragen
- iOS image** (10. März 2011 20:04)
zum Portieren der Anwendung von Lars holen
- Logic Lecture** (7. Januar 2011 04:04)

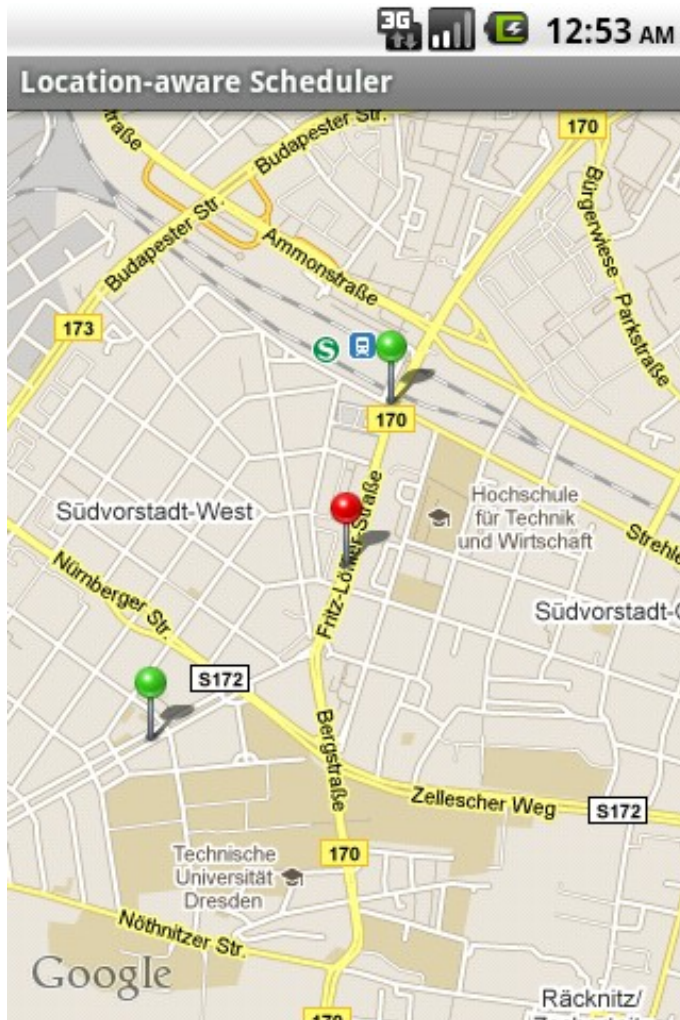
At the bottom, there is a navigation bar with four icons and labels: a plus sign for "New Event", another plus sign for "New Task", a calendar icon for "Show Tasks", and a magnifying glass for "Filter".

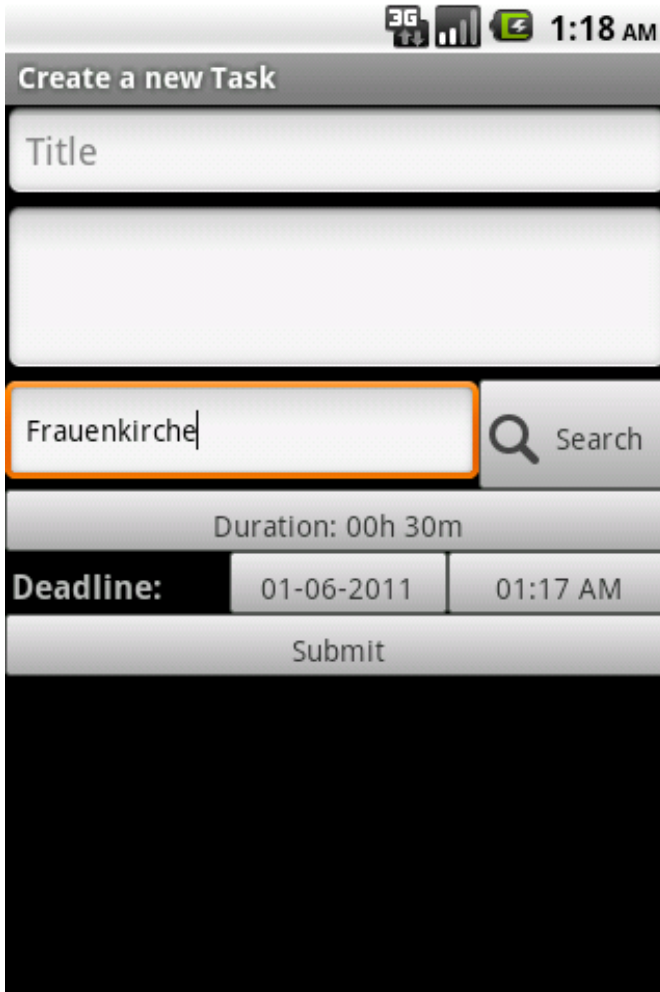


Task Detail View

- Deadline, Duration, Description and Status
- Static Google Map with
 - current (red) task location
 - nearby tasks (green)
- With a tab on the static map you can switch to the Google Maps view
- You can mark tasks as done







3G 1:18 AM

Create a new Task

Title

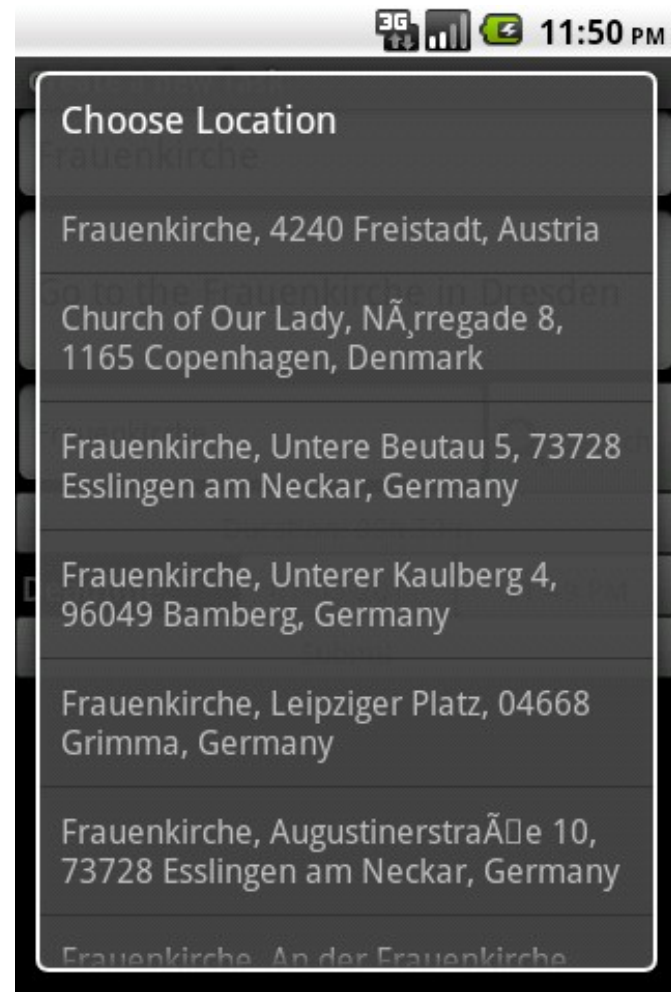
Frauenkirche

Search

Duration: 00h 30m

Deadline: 01-06-2011 01:17 AM

Submit



3G 11:50 PM

Choose Location

Frauenkirche, 4240 Freistadt, Austria

Church of Our Lady, NÅrregade 8, 1165 Copenhagen, Denmark

Frauenkirche, Untere Beutau 5, 73728 Esslingen am Neckar, Germany

Frauenkirche, Unterer Kaulberg 4, 96049 Bamberg, Germany

Frauenkirche, Leipziger Platz, 04668 Grimma, Germany

Frauenkirche, AugustinerstraÅ¼e 10, 73728 Esslingen am Neckar, Germany

Frauenkirche, An der Frauenkirche

- 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

- Implementing Google Maps routing with simulated annealing between tasks
- Better scheduling algorithm
- Testing on some devices
- Bugfixing
- User Interface Design