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## Android Smartphone Programming

<http://proglang.informatik.uni-freiburg.de/teaching/androidpracticum/2013/>

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### Exercise Sheet 6

## 1 Telephone Manager (20 points)

In this exercise you will create an application to manage incoming phone calls. The idea behind this application is to decide whether the telephone ring tone should be muted on an incoming call or not. This will be decided by looking through the built-in calendar to check if there is currently a meeting/conference taking place. If so, the telephone gets muted. If the application mutes the cellphone, the caller should be sent an SMS with some explanation. The user should also be notified of any muted calls.

The following features should be supported in your application.

- Mute telephone calls if a date whose availability is *busy* happens. Check the built-in calendar. Note, after muting, the cellphone has to be in the state as before.
- Send a SMS back to the caller to inform him that his call was omitted.
- Notify the user about muted calls.
- A possibility to activate or deactivate the activity.
- A possibility to recognise if the activity is active.

**Settings** Develop a possibility to activate or deactivate the *Telephone Manager*. *This can be done by an Activity, an AppWidget, an extension to the settings menu, etc..*

**State** Develop a possibility to recognise if the *Telephone Manager* is currently active or inactive. *This can be done by a Status Bar Icons, an AppWidget, etc..*

**General Remarks** You have to take efficiency and usability into account.

## Submission

**Deadline** The submission deadline is **28.01.2014, 12:00 (noon)**. Late submissions will not be accepted.

**Project** Create an *Eclipse Project* **exercise6\_⟨number⟩** for each exercise. Use **androidlab.exercise6\_⟨number⟩** as package name. Make sure that your project include all source files.

**Report** Your solution will consist of a *pdf file* **report6\_⟨number⟩.pdf** with a description. The description must be limited to one page per exercise. Submitting more than one page will lead to reduction in points. The description may be either in German or in English. Clear and understandable style is required.

**Submission** Submit your solution to the subversion repository. Your solution will consist of one *folder* **exercise6\_⟨number⟩** for each exercise which include the eclipse project and the report.

You are strongly encouraged to test your solution. Provide your source code with comments to understand the intention. Clear and understandable style is required.