University of Applied Sciences Bremen
IS Medieninformatik B.Sc.
Summer Semester 24
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Mobile Computing

3. Lab Assignment: Combine Activities using Intents

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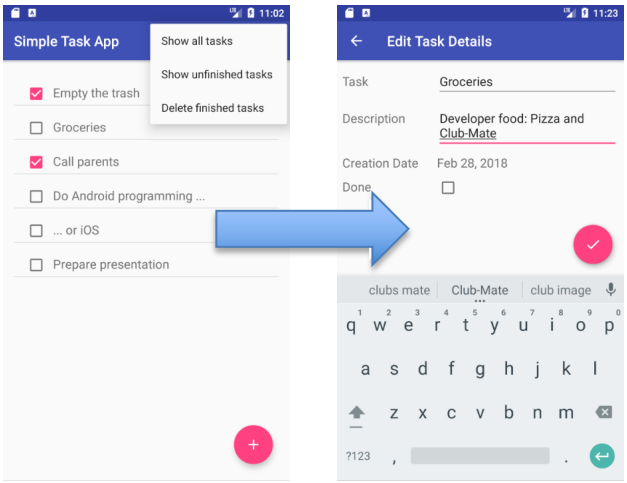
Presentation of results on: 30.05. (A) / 06.06. (B)

Objectives

1.) Working with Intents, transferring arguments, and returning result values
2.) Experience with database APIs.

Your Tasks

1.) Implement the navigation from the TaskListActivity to the TaskDetailActivity. Since the TaskDetailActivity will be used for both *adding new tasks* and *editing existing tasks*, you should define two *implicit* intents that are processed by TaskDetailActivity:
   - "Add task" intent: triggered by Add button, target Activity returns a new task.
   - "Edit task" intent: triggered by click on list item, list item (task) is provided as argument, target Activity returns edited task.



2.) Persist the tasks to a local database on the mobile device. For this purpose, consider extending the `TaskRepository` Interface appropriately and implementing a new class `TaskRepository-DatabaseImpl`. Your implementation may employ the Android *SQLite API* or the *Room persistence library*. Advantage of Room: Room supports LiveData, which you may want to use later (cf. bonus task in lab assignment 4).

See page 2 for bonus tasks.

Bonus Tasks

If you finished the above task, you may gather bonus points by adding a menu for additional functionality to your TaskListActivity (as shown in the left-hand side figure):

1.) If your app does not use an ActionBar so far, add an ActionBar. The ActionBar should show useful names for the activities (cf. above: “Simple Task App” and “Edit Task Details”).
2.) Add a menu and implement the following functionality:
    - Filtering: show all tasks + show unfinished tasks
    - Deleting: delete all finished tasks

Hint: Filtering *might* be implemented by a special `FilteredTasksAdapter` which knows the filter status (all / unfinished) and provides the list view with all / only the unfinished tasks.