Design document for XTracker App

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# Goal

The app is used to track the time spent on certain activities. These activities could be hobbies, work, general stuff, studying, etcetera… .

The reason for the app is based upon the 10000 hour rule. To truly master a skill, you need to put 10000 hours into it. Tracking this stuff on a piece of paper or a notepad file is bothersome, tedious and not accurate. This is why I decided to built this app.

# Functionality.

## Currently implemented:

### Home page:

The home page needs to consist of a list of elements that show the actual activities you’re tracking. These elements need to be clickable so you can easily add time to it. There are two choices that immediately spring to mind. Either you go to a new activity where you can choose the different ways of adding time or you show a popup button that gives you a quick shortcut to those methods. I chose for the first one for now, I might add the second one later to happen on a long click.

The last thing that needs to be added is a button to add a new activity. I decided to implement this as a floating button, so that the user always has quick acces to this button and you don’t need to spent a lot of time on scrolling to the top or bottom. An action bar on the top or bottom would be unnecessary for now.

### Adding an activity to track:

When the user clicks on the add activity button in the homepage they are brought to a new screen where they can fill in the name of the activity they want to track. There is a simple button that allows you to add this activity.

### Clicking on an element in the list

When the user clicks on an element in their activity list. They are brought to a new screen where they see the current time they have spent on this app, they are able to add time by manually filling in the hours, minutes, and seconds or they can start a session.

They can also delete the activity or go to the home screen.

### Starting a session:

A session allows you to precisely measure the amount of time you are spending on the activity, this is the bread and butter of the activity and why it is better than manually tracking time on a notepad text. The timer has three buttons, start, pause and end

Clicking on end adds the time to the database, it works when you’re in start and in pause. The user doesn’t have to pause before they click end.

### Adding time:

If the user wants to manually add time (in case they forgot to start a session or didn’t feel like it) they are able to fill in hours, minutes, and seconds.

The User is only able to fill in positive integer numbers. Currently there is no check to see that the minutes and seconds are below 60.

If the User leaves a Field empty it counts as 0.

## To implement:

(no particular order)

The user needs to be able to specify a potential parent for each activity, i.e. they have an activity that tracks how much time they are practicing a sport. But they want to also track the amount of time they spent on particular skills in that sport. When they add that activity to the list it and then add time to it, that time also needs to be added to the sport activity.

When the above method is implemented, the way the activities is shown also needs to be changed. Child activities should be shown under the parent activity, two ways come to mind, showing child activities by indentation, or having the parent activity be shown as a spinner, when clicking on it a dropdown appears with all the children and itself. Not sure which way I’m going yet, first going to implement the paragraph above.

When clicking on the delete button in the screen of the activity you’re tracking, confirmation needs to be asked. Could also possibly move the delete button to a less convenient spot.

Need to value check all the edit texts. At the moment code can possibly break when users use apostrophes and slashes in their names for activities, also need to make sure input for minutes and seconds needs to be less than 60.

Might offer a method to deduce time for an activity (users forgetting to pause session or adding wrong input).

## Currently Working on:

The first paragraph in the to implement section