Jibran Syed

Chott

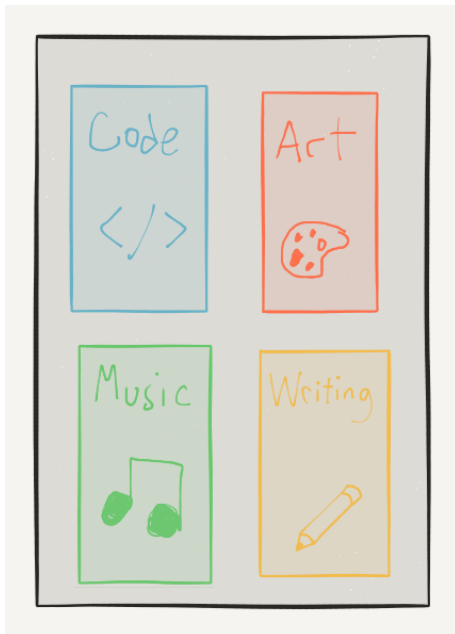## A project time tracking app - design proposal

Chott is a time tracking app specifically for personal projects (creative hobbies).

Functionality

In Chott, you can time-track personal projects (from hereon, the term **Project** will imply something that is tracked in the app). These projects are grouped into **Categories**. For this version of the app, there will be 4 categories:

- Code
- Art
- Music
- Writing

In order to access a list of projects, first the user will have to select a particular category on the Category Selection Screen (shown below).

Every category has its own icon to represent it throughout the app. Once the user selects a category, a list of projects associated with that category will show up (called the Project Selection Screen). If the user is using the app for the first time, this list will be empty.

The user has 3 options: add a new project to track, time-track an existing project on the list, or look at a project's history. These 3 actions have their own screens. In a future version of this project, there would ideally be a way to delete projects, but this is low priority at this point.

The Add Project Screen allows the user to name a project that will be added to the current category. If there is enough time, the user should also have the option to select the category where the new project should be added. If this category selection option won't be implemented, then the default behavior for adding a new project would be that it would apply the category that the user most recently selected before they decided to add a new project.

Add Project

Name

Act
Category

Add & Track

Add   Cancel

The add screen also has 3 buttons. If the user presses "Cancel", then the screen is dismissed and no project will be added. If the user presses "Add", the screen is also dismissed (and goes back to the Project Selection Screen), and adds the new project to the list. If the user presses "Add & Track", then the project is added, but the user is taken to the Project Session Timer Screen (shown below).

My Project A

16:41

Finish

Cancel   Restart

This Timer Screen counts the time the user spends on the project. The ability to pause the timer is a low-priority feature that should be implemented if there is enough time. Unpausing is assumed to be possible if pausing is implemented.

If the user presses "Finish", the app will take the currently tracked time and make a **Project Session** out of it. This session contains data about the project being tracked in the session, the start time, end time, and if time permits, location of the session. If the user presses "Finish", the timer screen is dismissed and the user is taken back to the project selection screen.

If the user instead presses "Cancel", the user will be taken back to the project selection screen, but a new project session entry will not be recorded.

If the user presses "Restart" this resets the timer to 0 and counts the time again. No screen navigation is done when pressing "Restart".

As the user records sessions for every project, the user will want to know how long they spent on each project. That is what the Project History Screen is for.

This screen will probably be accessible via tab navigation on the Project Selection Screen. The default tab would be Track, while the other tab would be History. The user enters the Project History screen after selecting a project from the list in the History tab.

The history screen shows a list of recorded project session for only one type of project. So, for example, if the user had a project called "Write in Blog", the history screen will only show sessions for that project, not any other projects. Each session should show the date of recording, the time span, and total calculated time of the session.

If time permits, a detail view would allow users to look at even more details about every session, but this is a low-priority feature for this version of the app. Also, for this version of the app, sessions cannot be added manually (without the timer screen) or deleted. These features would be implemented in future versions of the app.

Summary of Functionality:
- Select a Category
- Start time-tracking a Project chosen from a list
- Finish tracking current Session
- Cancel tracking of current Session
- Restart tracking of current Session
- Add more Projects to a Category
- Look at history of previous Session per Project

Android API Usage

In order to implement the features for Chott, special Android API functionality will be required. The following are such functionality:
- 2D graphics drawing
  - For the icons that will represent the Categories
- Tab navigation
  - For the Project Selection screen to differentiate between tracking a new project session and looking up the history of previous project sessions
- File Serialization
  - For saving a list of project session to file and keep the data alive outside the scope of the app session or OS session.
  - This would require something like Serializable, XMLSerializer, Parcelable, JsonReader, or something else.
- Location awareness
  - Only if project sessions will also store location data
- Time representation (using the Date class)
  - For the timer functionality and session data

Screen Flow

The following diagram demonstrates the screen flow of Chott starting at the Category screen (CategorySelectionActivity)