6.170 Project 3 Design Draft
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Shirk

Overview

Motivation

Shirk is an online to-do list built for procrastinators (a.k.a the average MIT student). *Shirk* enables the user to create and manage multiple to-do lists, see what is due when, and choose to shirk tasks when they are due.

Purposes

1. **Facilitate keeping track of what tasks need to do be done, and what tasks have been completed.** Procrastinators tend to let things pile up, and having a list of everything that needs to get done will allow procrastinators to put off tasks without worrying about forgetting to do them. Being able to mark things as done is necessary for any to-do list.
2. **Enable keeping track of deadlines and shirking a task when it is due.** Shirking is a concept unique to our to-do list: when a deadline comes up, the user may choose to shirk the task, delaying the due date in an action akin to hitting the snooze button on an alarm. In this way, procrastinators can make sure that they'll still get everything done, even if it's late.
3. **Provide the ability to prioritize tasks and view important ones.** There are different ways tasks can be important: the content of the task is important, the task is due soon, or the task has been shirked and is past the original due date. *Shirk* will provide an interface that helps procrastinators figure out exactly where they should focus their time when they finally get down to work.
4. **Allow organization of tasks by type.** Procrastinators may have a variety of tasks to do that don't have much to do with each other, such as completing psets and sending birthday cards. Lists will enable organizing these different types of tasks.

The first two purposes constitute a Minimum Viable Product: **1.** is required for any to-do list, and **2.** provides the unique functionality of shirking. **3.** and **4.** are nice things to have for a to-do list, but are not absolutely essential for it to function.

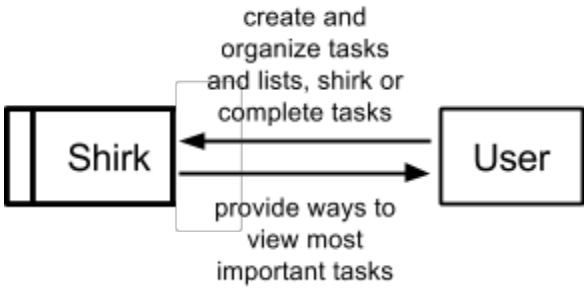
Existing solutions

There are a few to-do lists marketed for procrastinators already in existence. The ones with the most notable procrastinator-oriented features are Finish, Do It (Tomorrow), CARROT, and Three ToDo. Each app approaches the problem of designing a to-do list for procrastinators in a different way:

- *Finish* uses timeframes: tasks are either short-term, mid-term, or long-term, and automatically get moved from one category to another as the due date gets closer. However, *Finish* does not say how to handles tasks that are not completed by their due date.
- *Do It (Tomorrow)* has two lists: stuff to do today and stuff to do tomorrow, with the option to move tasks from today to tomorrow. This does not support long-term planning or a notion of due dates.
- *CARROT* has an "AI" that gets mad at the user when they don't complete tasks on time. This is a cute idea but may make the user feel bad about themselves.
- *Three ToDo* only shows 3 tasks at a time, which you can drop, defer, or mark as done. The app then infers a priority for the tasks based on what you do. This can interfere with long-term planning and let important tasks be forgotten if they are never reached.

Shirk combines the best of traditional to-do lists and the above ideas by providing all the long-term planning benefits of a traditional to-do list with the ability to procrastinate short-term without forgetting about a task or getting yelled at by an angry app.

Context Diagram



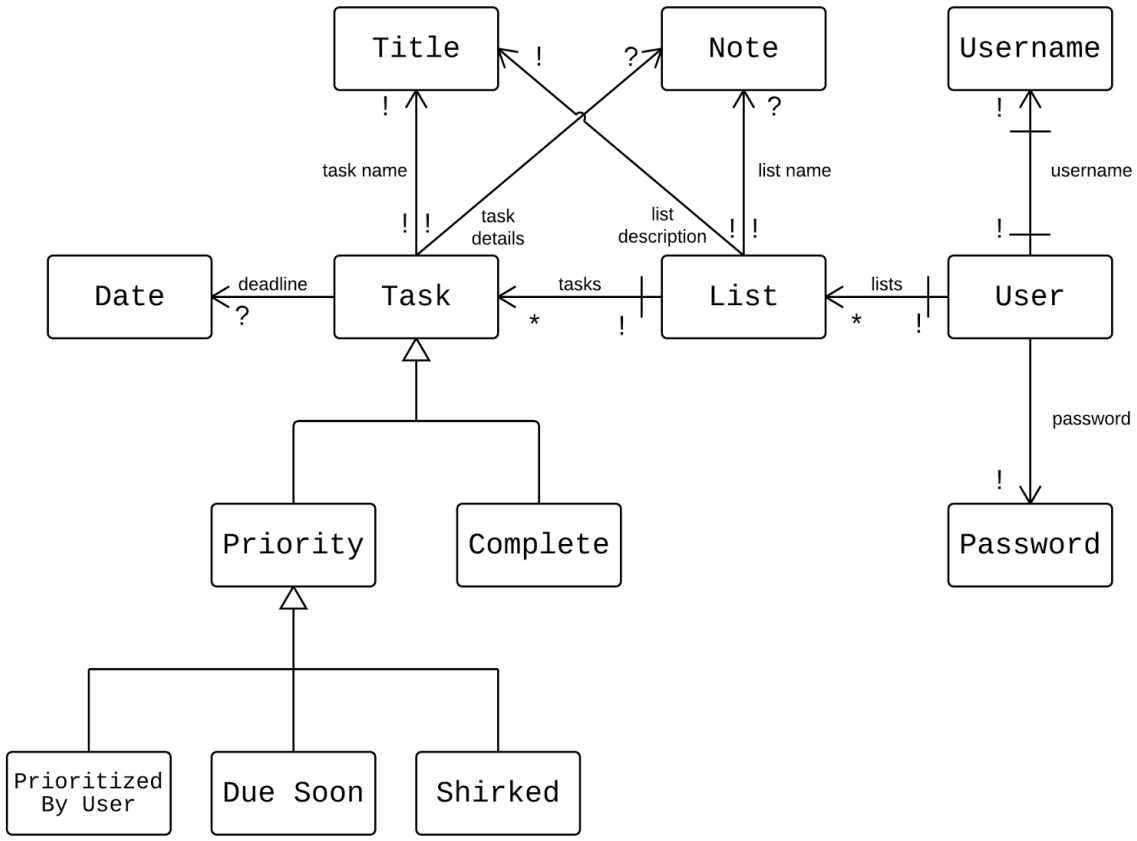
Design Model

Concepts

- **Task:** A task that the user needs to complete. A task may or may not have a deadline or details. *Shirk* does not support recurring tasks.
- **List:** An organizational unit used to group tasks. Lists have the tasks they contain, a title, and an optional description. Lists are primarily linked to purpose 4: the ability to organize tasks by type.

- **User:** A user of the application, ostensibly a procrastinator. Users have no interaction with other users: there is no viewing of other users' tasks, sharing of tasks, etc.
- **Deadline/Due Date:** A date when a task is due. Users can postpone a deadline one day by shirking the task. There is no time associated with a deadline.
- **Shirking:** The act of postponing a task by one day. The first time a task is postponed, it goes into the *overdue* prioritization group and remains there until it is complete.
- **Completing:** The act of marking a task as finished.
- **Prioritizing:** There are different ways to prioritize tasks: tasks that are due soon, tasks that have been shirked and are overdue, and tasks that the user specifically wants to designate as being important. Prioritizing as a user action is the act of marking a task as important; *Shirk* automatically prioritizes tasks that are due soon or are overdue.

Data Model



Design Challenges

Which tasks have highest priority?

There are three priority groups: prioritized by user, due soon, and shirked. Of these three groups, prioritized by user has the highest priority, since the user should be able to have the final say about prioritization. The tasks in this group are then ordered in priority by due date. Next is shirked tasks, which are overdue and thus more urgent than tasks that are due soon, and finally the due soon tasks, both of which are also internally ordered by due date.

What does *Shirk* do with tasks that don't have deadlines?

Tasks without deadlines are special in that they can never be due soon and never be shirked. *Shirk* will denote these tasks in the todo-list by putting them in a separate section. Tasks without a deadline can be prioritized by marking them as important, but will never be automatically prioritized by *Shirk*.