WakyZzz App

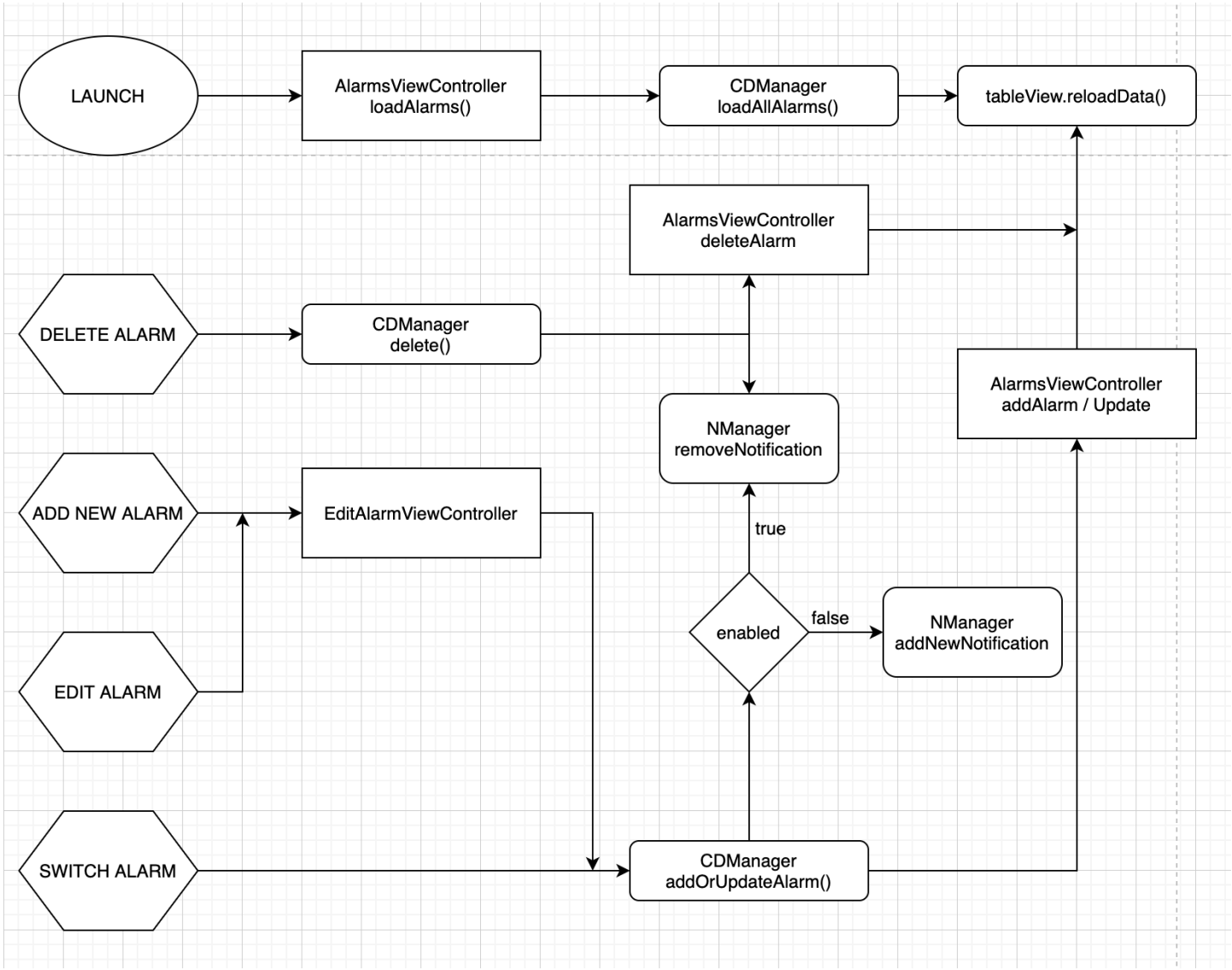
https://github.com/Ra-Fa-L/OC-07-Wakyzzz

App requirements:

- User can set, modify and delete multiple alarms.
- Each alarm entry may be set on 'repeat mode' for any day of the week.
- When the alarm goes off, the user will have an option to "snooze" the alarm.
- After each "snooze" action, the alarm will pause for 1 minute, and then it will ring at a higher volume.
- After a user requests to snooze 2 times, the app will play an "evil" alarm sound. (Or different sound)
- When "evil" sound starts playing, the only way to turn it off is to execute a given task. A random act of kindness from a list, such as:
    - Message a friend asking how they are doing
    - Connect with a family member by expressing a kind thought
- The user will be presented with an option to mark the task as "completed" or promise to do it later.
- If the user choses a "promise" option, the app will set up a local notification to remind the user of the promise.

The approach taken to complete given tasks was slightly different than one would normally choose. I stayed with the architecture that was given in the project, namely MVC. I was trying not to change too much code, as it would be for example in the case of MVVM. In order to understand the given app I reorder AlarmsViewController and renamed some methods but not much code has been changed. I also reordered all the files into new folders and instead of creating ViewModel or something similar I decided to create 2 Managers, CoreDataManager and NotificationManager that will handle everything needed for the app. With this approach I added very little code to the existing code base. Those 2 Managers are also Singletons and can be accessed from everywhere in the app, so I don't have to pass too much data between Objects. In order to handle CoreData I have chosen to create a new CDAlarm object that will quickly be transformed to Alarm class. Instead of commenting too much I tried to decouple a lot of code into smaller functions and name them properly.

Basic AppFlow diagram helped me to create a simple yet functioning solution.



The project has many issues and not finished functionalities:

- **Alarms cannot be saved** —> It has been solved by implementing CoreData into the project
- **Bad constraints in AlarmCell printed out in the console** —> CaptionLabel height constraint removed as it is not needed.
- **No AutoLayouts in Storyboard** —> Added missing constraint
- **Landscape Layout in AlarmViewController is not looking good** —> Changed constraints for landscape orientation so that table and datePicker share screen width.
- **When deleting an alarm, the app would crash** —> Bad id used, it has been changed to indexPath.row
- **Initial hour not showing 8 PM** —> Initial time had to be multiplied by 3600 a not 360
- **Date Picker with 5 min intervals** —> Changed to 1 min
- **Name of the AlarmVC very similar to AlarmsVC** —> Changed to EditAlarmVC
- **Alarms are not shown in order and editing or adding new alarm is also not changing position** —> After launch, edit or adding new alarm the array with Alarms needs to be sorted before reloading data.
- **No alarms identifiers** —> Added UUID
- **Alarms are not working. Missing completely** —> Implemented using Local Notifications, added sounds and snoozing functionality
- **No random act of kindness** —> Implemented option to open SMS window with different texts.

Basic integration tests has been implemented:

- Saving new alarm into CoreData
- Removing alarms from CoreData
- Adding localNotification
- Removing Local notification