



# NorthOne coding challenge Readme

## Topics

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**Architecture**

**MVC**

**Features**

**Login**

**Creating tasks**

**Editing tasks**

**Searching tasks**

**Filtering tasks**

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**Future work**

**Refactoring**





# Running the project

**The project uses Cocoapods to fetch Firebase and calendar dependencies. Cocoapods can be installed using Homebrew**

**In the terminal, cd into the source directory and run pod init**

```
Omars-MacBook-Pro:Documents omarpadierna$ cd TodoList/  
Omars-MacBook-Pro:TodoList omarpadierna$ pod init
```

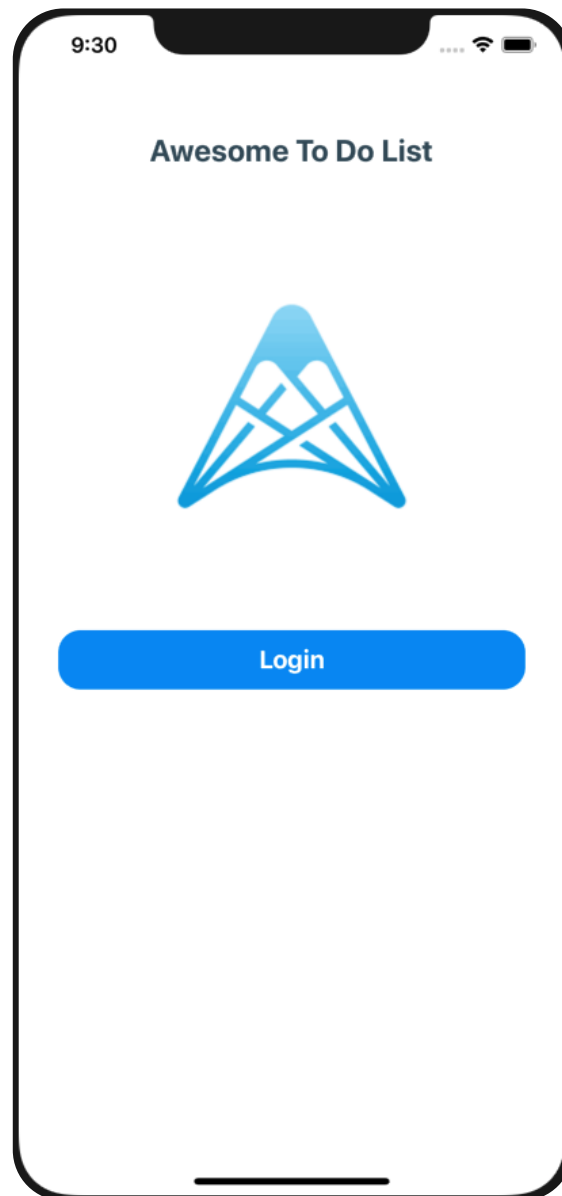
**Open the project's workspace in Xcode and run**



TodoList.xcworks  
pace



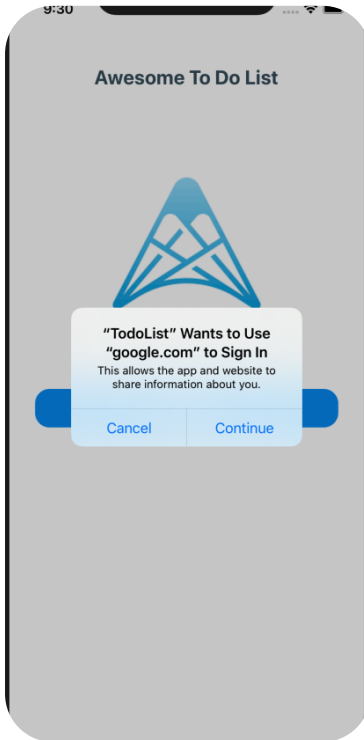
# Architecture



**Given the small size of the project, the architecture used for this challenge was MVC**



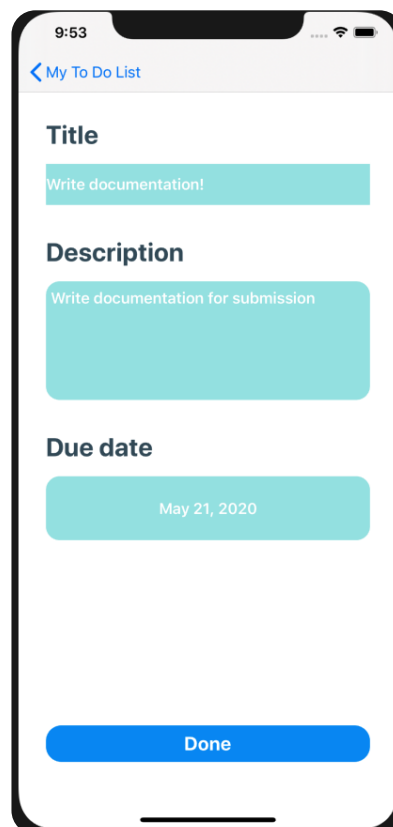
# Features



**Google login via Firebase**



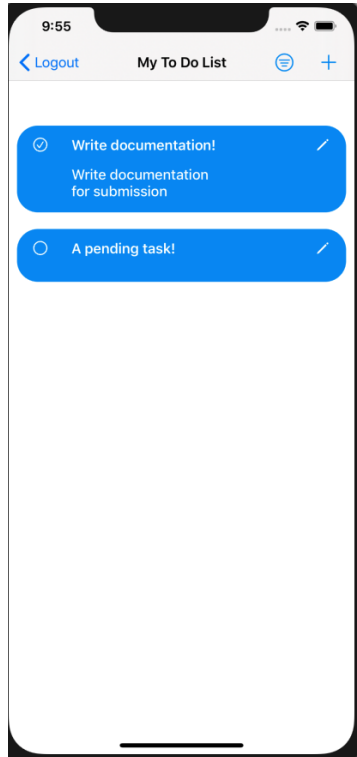
**Filtering tasks by:  
Due date  
Status**



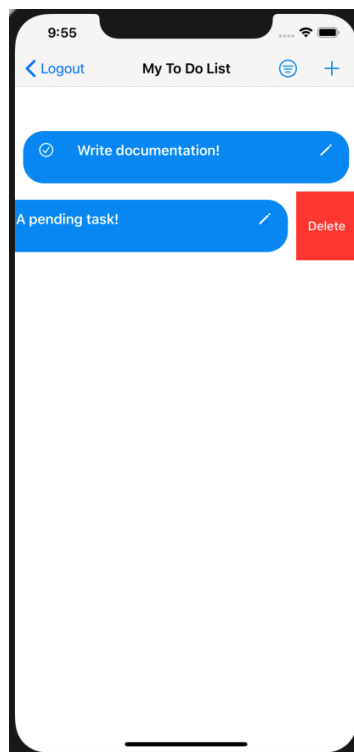
**Creating/Editing tasks**



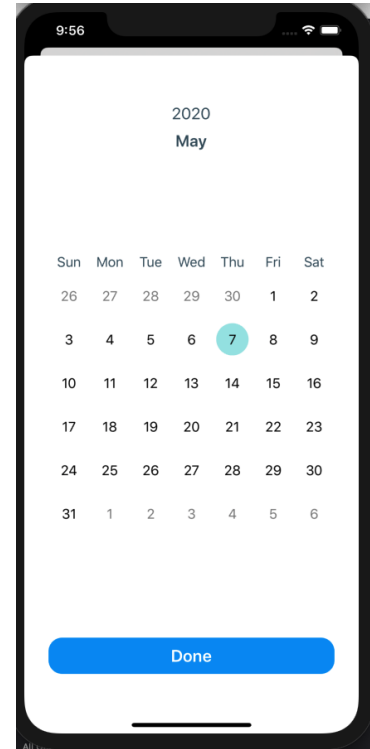
# Features



**Updating status**  
**Collapsible rows to display/hide description**



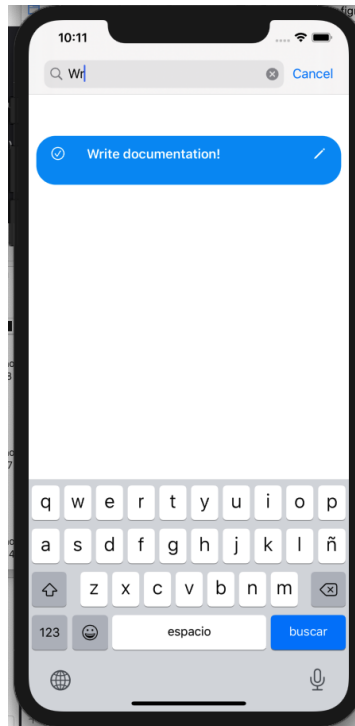
**Task deletion**



**Calendar view for due date filtering and due date selection**



# Features



## Task search



# Patterns



**The app updates the status and content of each task using Firestore**

**To achieve this a `FirebaseManager` was implemented. It follows a facade pattern that contains the update, save, delete and create methods**

**The `FirebaseManager` is also in charge of initializing the Firebase SDK.**

**The Facade is also type safe and encapsulated. It is instantiated as a singleton.**



# Future work

**The TaskListViewController is quickly becoming a massive view controller**

**To combat this problem, 2 solutions are proposed:**

**1) Refactor out the controller's work (particularly when dealing with filtering) by creating embedded view controllers**

**2) Change app's architecture into MVVM**