

USE TO DO APPLICATION TO ORGANIZE USER'S TASKS

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Modern Programming Practices

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PROBLEM DOMAIN

Our group project aims to be an application that can be used by users to organize their errands and other tasks that they need to complete on a daily or scheduled basis. Sometimes it is hard to keep track of all the things an individual needs to get done in their daily routines or what things need to be scheduled to be incorporated later.

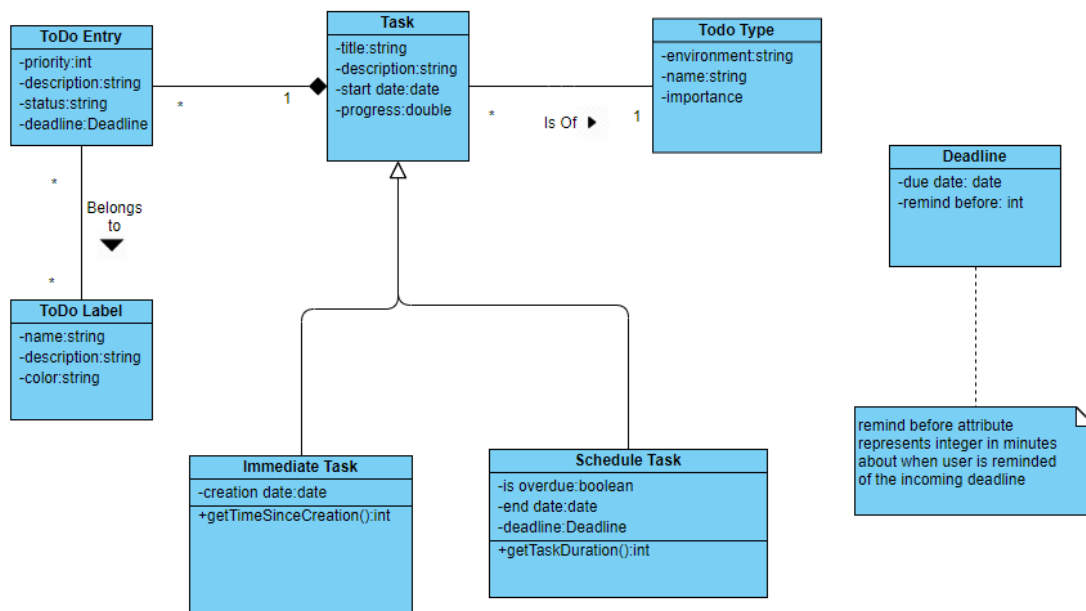
Our application will have a dashboard for the user to see the things that he needs to complete and a way to mark things as done or in progress. The user should be able to create tasks to be added to the dashboard immediately or to be scheduled.

Each to-do entry should be able to contain optional labels for easy classification depending on what they are related to in relation to the user's life. For example, labels can be 'professional', 'school', 'personal', 'leisure', etc. Also, we have upgraded our model to have different types for each Task.

In the case of scheduled tasks, a user should be able to set a reminder that will have a duration of time to remind the user in minutes. That way a reminder can be 15, 30, 45, 60, etc minutes before it's due date.

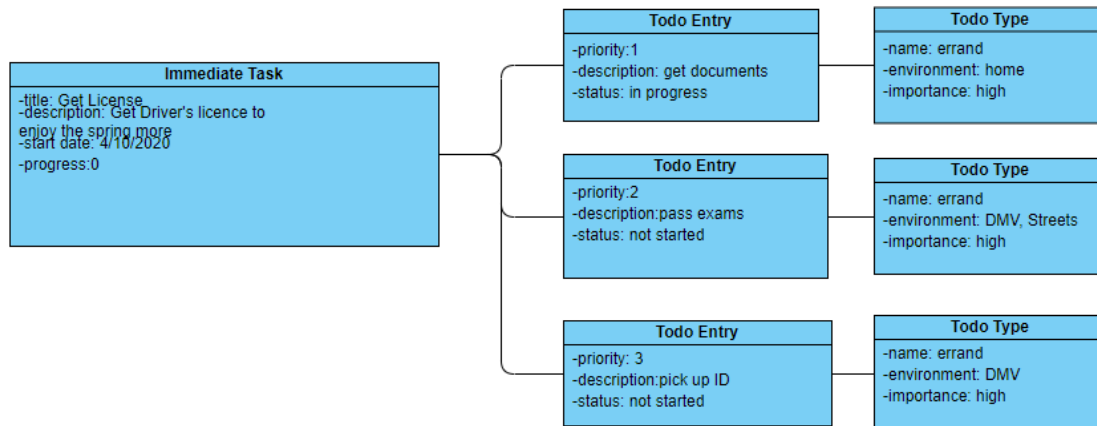
CLASS DIAGRAM

Our class diagram, revised.



OBJECT DIAGRAM

Again, to better visualize how our app will work we include an object diagram with instances that model the class diagram above:



BUSINESS FUNCTIONS/SERVICES

- Create task
- Add steps to complete tasks (to-do entry)
- Add labels to to-do entries for classification
- Add immediate tasks and schedule tasks.
- Show not completed tasks and their to-do entries.
- Show schedule tasks when they are coming due and their due dates
- Have optional reminders for scheduled tasks as well as all individual to-do entries.

CONCEPTS DEMONSTRATED

- Software design and UML Diagram creation.
- Different relations among classes: Inheritance, association, composition.
- Polymorphism
- Functional Interfaces
- Lambda expressions and method references for implementation of Functional Interfaces.
- Streams for organizing collections of datas or collection of todos.
- Testing of different functionalities
- Annotations

CONCLUSION

Our To Do Application aims to make organizing things to do for a user a better experience and to be a robust system that will model the natural workflow of organizing their day.