How to Use this Template

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Submission Instructions

1. After you’ve completed all the sections, download this document as a PDF [File → Download as PDF]
2. Create a new GitHub repo for the capstone. Name it “**Capstone Project**”
3. Add this document to your repo. Make sure it’s named “**Capstone_Stage1.pdf**”

GitHub Username: anurag-mehndiratta

Repository https://github.com/anurag-mehndiratta/Capstone-Project.git

Agilize your life

Big life goals - one step at a time. A task manager to add basic agile concepts to your life

Description

Using the basic concepts of Agile Methodology in Software Development, this app intends to make your life easier by translating your life goals into an action plan.
You can create your Life Backlog - a super-set of all your tasks, then put these tasks in your Sprint List - your intended action plan defined for a small period and finally, you can plan your Daily To-Do List by choosing the tasks from this defined sprint.

Agile methodology has revolutionized software development and it can help improve your life..

Remember, great mountains are climbed one step at a time. What's your goal?
Create your action plan now.

Intended User

This app is for everybody pursuing their life goals. Students, teachers, professionals, etc.

Features

List the main features of your app. For example:

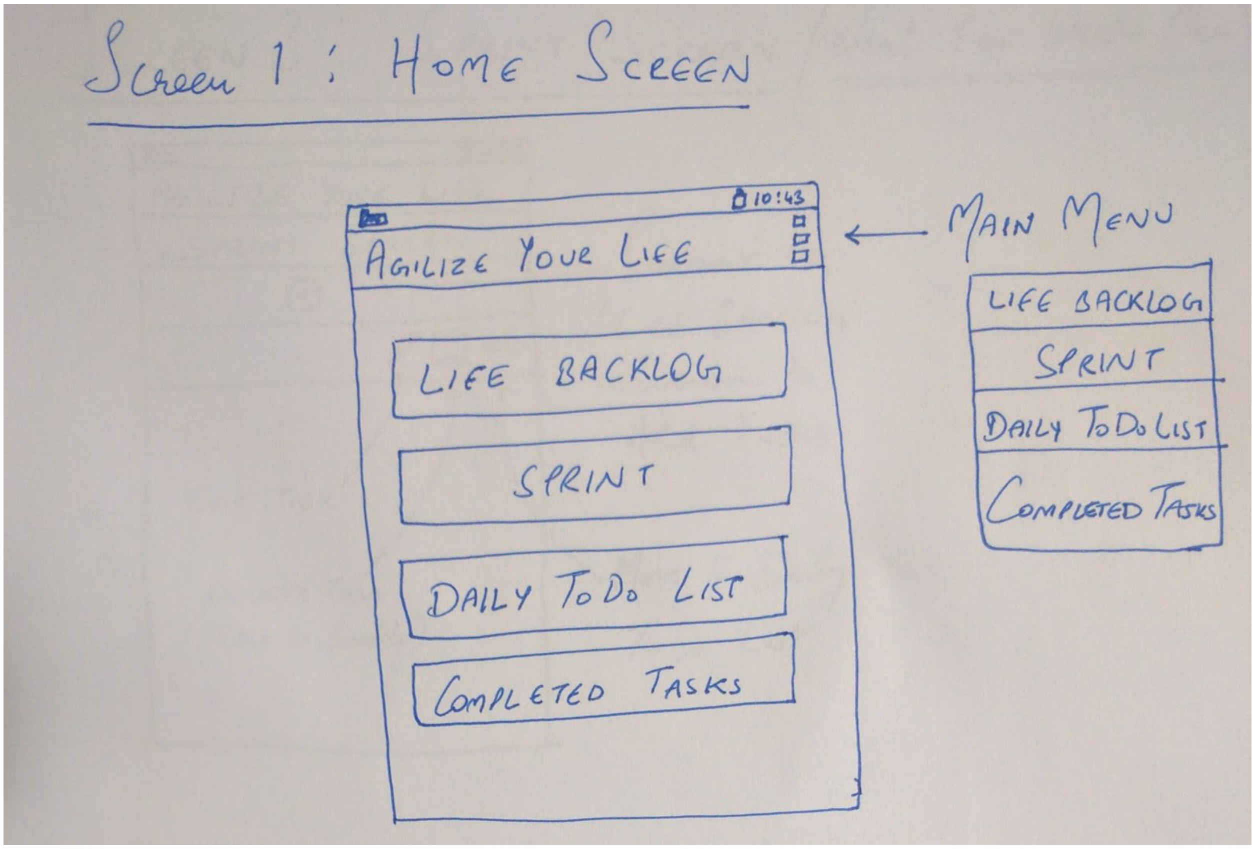
- Helps create action plans
- Captures user data - to-do list
- Helps in planning life backlog, sprints, daily tasks
- Displays a list of completed tasks

User Interface Mocks

These can be created by hand (take a photo of your drawings and insert them in this flow), or using a program like Photoshop or Balsamiq.

Screen 1: Home Screen

This is the main screen providing user access to navigate to different modules, viz. Life Backlog, Sprint List, To-do(Daily Tasks), Completed (Tasks). The same list will also be available in the menu.



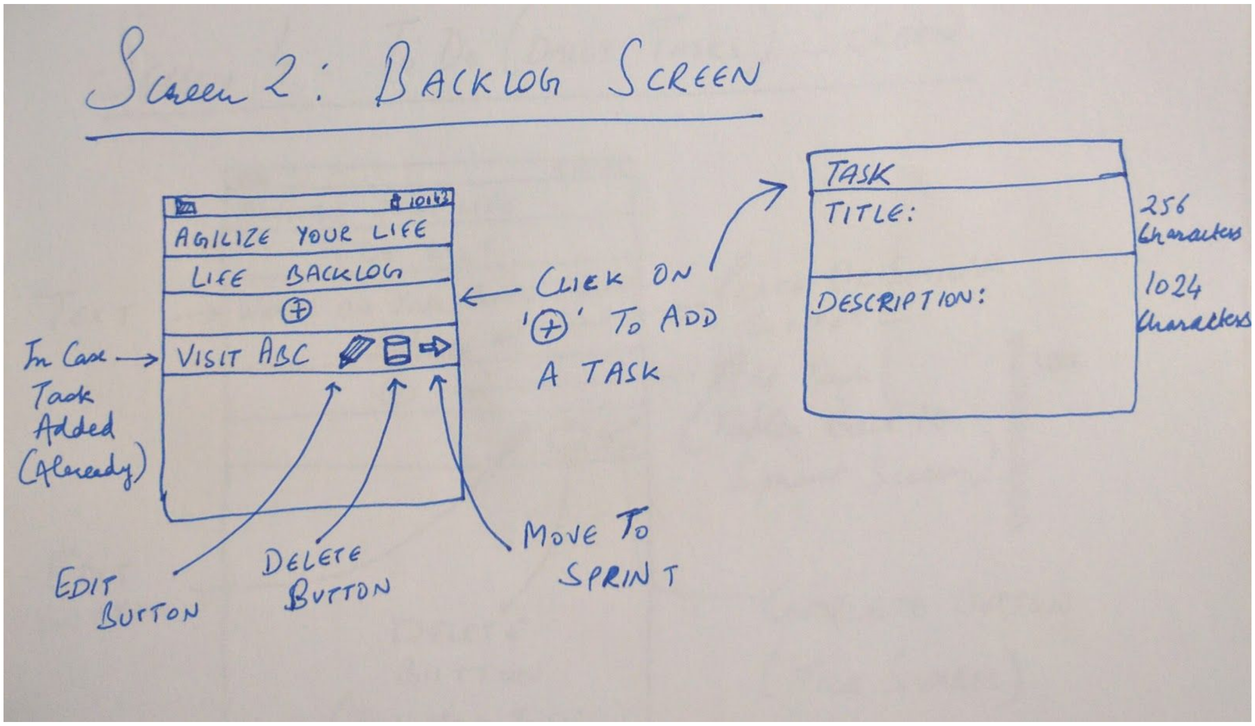
Screen 2: Backlog Screen

This is the first module of the app and the origination point of all the tasks. It would contain the superset of all the tasks to be completed by the user.

There will be a plus sign which will be used to add a task.

When a task is created, there will be three icons/buttons provided to perform following operations:

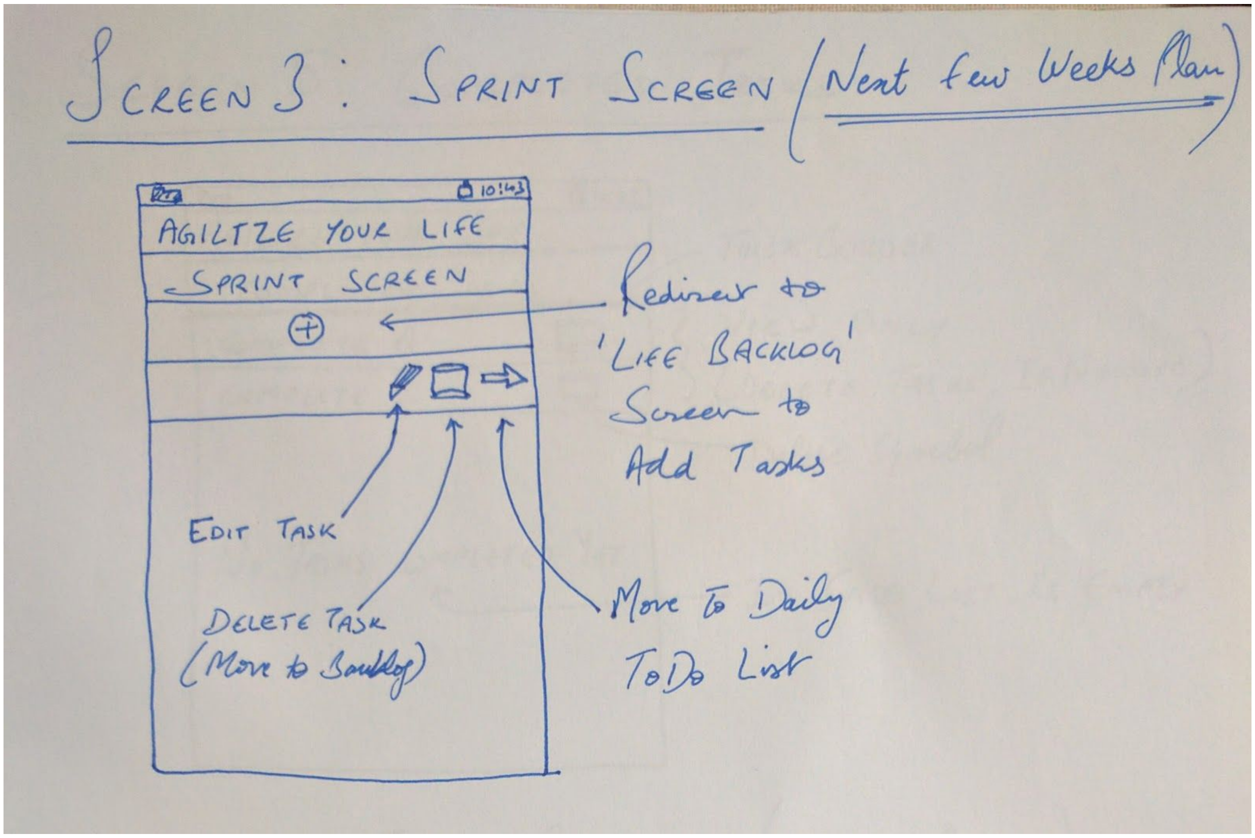
i) Edit - Pencil symbol
ii) Delete - Bin symbol
iii) Move to Sprint - Right pointing arrow



The intended action will be displayed by appropriate toast.

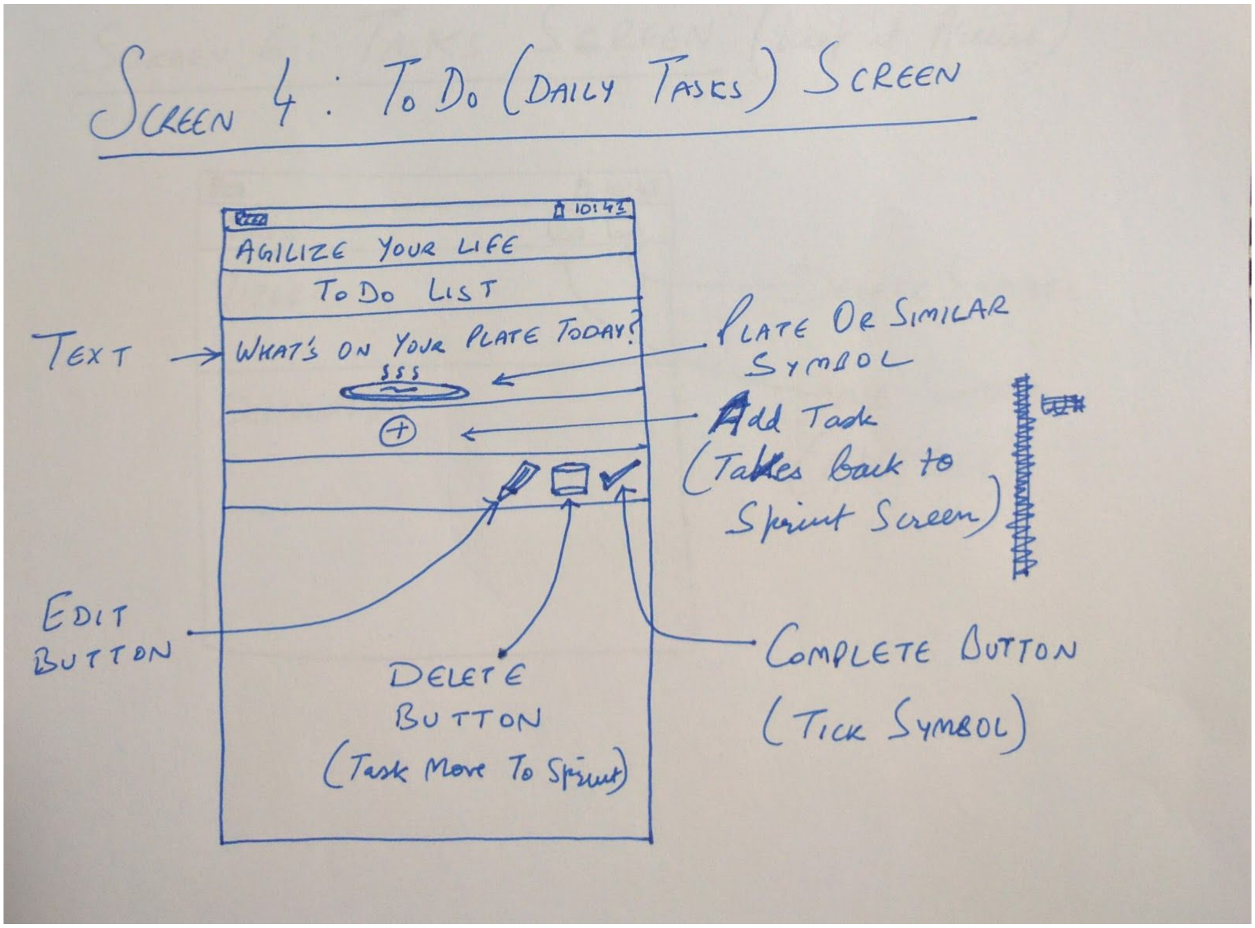
Screen 3: Sprint Screen

This screen contains the tasks shortlisted by the user to be completed in the next few weeks. As of now, it is assumed that user manages his own sprint cycles (choosing his own sprint duration) - giving the freedom in the hands of the user.


Screen 3: Sprint Screen (Next few Weeks Plan)
10:43
AGILIZE YOUR LIFE
SPRINT SCREEN
Redirect to 'Life Backlog' Screen to Add Tasks
Edit Task
Delete Task (Move to Backlog)
Move to Daily ToDo List

The tasks will be moved from Backlog list to this list.
In case there are no tasks in the sprint list, when clicked on plus sign, it will redirect to Backlog screen with a toast appearing on the screen with message - “Move the task from the backlog to the sprint”
Edit button will open the task fragment (Screen 6).

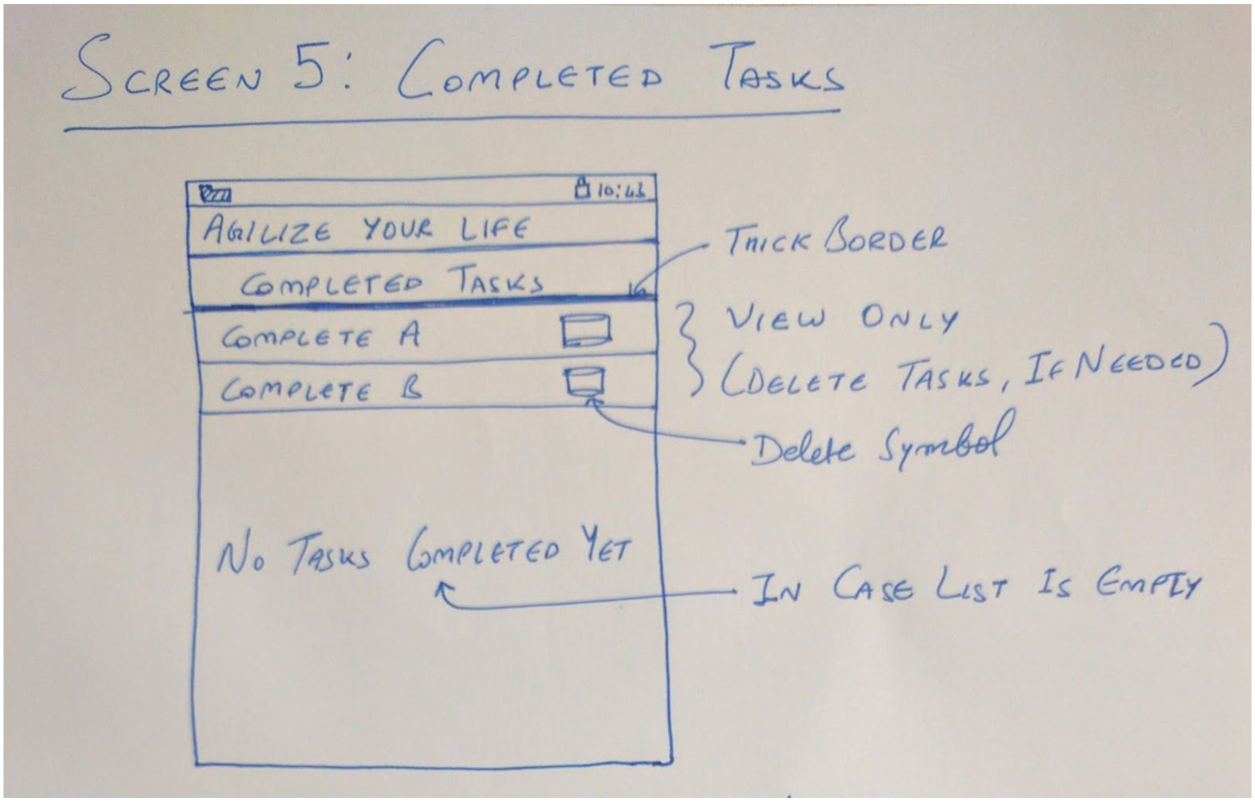
Screen 4: To-do(Daily Tasks) Screen - What’s on your plate today?
This list contains the tasks that the user intends to complete today.
It is assumed that the user will add the tasks first in Life Backlog and then move them to the sprint before it can be added to the daily list.


Screen 4 : To Do (Daily Tasks) Screen
10:43
Agilize Your Life
To Do List
Text
What's on your Plate Today?
$$$
Plate Or Similar Symbol
Add Task (Takes back to Sprint Screen)
Edit Button
Delete Button (Task Move To Sprint)
Complete Button (Tick Symbol)

There will be an icon (plate) corresponding to the 'What's on your plate tagline'
Every task will have a corresponding 'tick' symbol to mark the completion. The completed tasks will be moved to Completed Tasks list.

Screen 5: ToDo List Widget
The Daily ToDo List will be displayed on a widget on the home screen for the convenience of the user. The tasks will be in the viewable mode only as a list. For the sake of uniformity, the look and feel will be similar to the above screen - Daily ToDo List.

Screen 6: Completed Tasks
This screen contains the list of tasks which were completed by the user from their to-do list.
The tasks can be deleted from the screen if required. A 'delete' icon will be provided to the user.



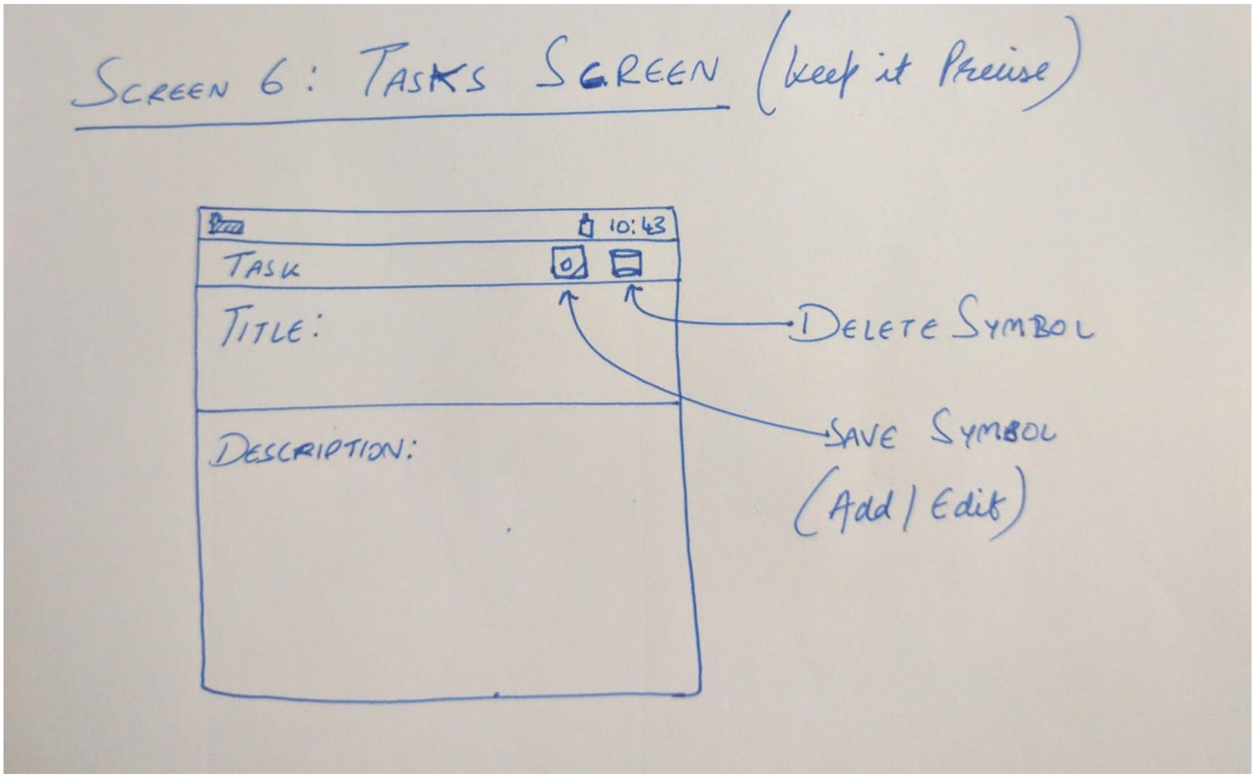
Screen 7: Tasks Screen

Task screen is the main screen where the task can be created/modified.

There will be option for the user to add:

i) Description - 256 characters - as precise as possible

ii) Summary - 1028 characters



By default, a task would only be saved when clicked save
There will be two buttons on this screen:
i) Save
ii) Delete

Key Considerations

How will your app handle data persistence?

As this is an app centered around the user tasks, all the data will be provided by the user. As of now, ContentProvider + Loader are chosen as the modus operandi to store and manipulate the user data.

Describe any corner cases in the UX.

As discussed above, there will be four primary modules:
i) Backlog
ii) Sprint
iii) Current/Daily
iv) Completed Tasks
There might be few corner cases like:

1. The task have to follow the flow as Backlog -> Sprint -> Current/Daily Screen
The integrity of data needs to be maintained throughout these lists
2. Addition/Creation of task:
    i) Once a task is created in Backlog, it is available to be moved into Sprint.
    ii) Only when a task is available in Sprint, can it be moved into Current/Daily screen.
3. Deletion of tasks:
    i) If a task is deleted from Backlog screen, it would also be deleted from other two lists
    ii) If a task is deleted from Sprint screen, it would also be removed from Current/Daily screen but it would not automatically deleted from Backlog screen
    iii) If a task is deleted from Daily screen, it would not be deleted from Backlog or Sprint screen
    iv) An appropriate popup would appear on the screen warning users about the resulting actions
Note: The thought process behind this deletion process is to prevent accidental removal of tasks and to maintain the task insertion/deletion integration.
4. Editing the task
    i) If a task is edited, it should represent the changes everywhere
    ii) A popup/prompt should warn the user about the resulting action
5. Completing a task
    i) Click complete on a task from the to-do list it will be added to the completed task list.
6. On clicking back button, the back channel must respect the hierarchy of the screens. Any data not saved will be lost (wherever applicable).

Describe any libraries you'll be using and share your reasoning for including them.

As of now, in this release, only Butterknife will be used to bind components. It is quite convenient in controlling the components using it. Since there are no images used, there might be no need of any extra library.
I'm also exploring options to use some free-to-use UI themes for better UX experience.
Apart from this Google Play Services will also be used in this project.

Describe how you will implement Google Play Services.

Two Google Play services are currently thought for incorporating in the app:
i) AdMob: To generate ad revenue
ii) Analytics: To learn the behaviour of task completion

User Behavior Suggestions

It is suggested that the user keeps on adding tasks to the Life Backlog periodically.
On similar lines, the user should add tasks to the sprint every fortnight Sunday and add tasks to the To Do list every morning.

Upcoming Features for next release

i) Daily Motivation - DIsplaying completion of tasks
ii) Sharing completion with friends

Next Steps: Required Tasks

This is the section where you can take the main features of your app (declared above) and decompose them into tangible technical tasks that you can complete incrementally until you have a finished app.

Task 1: Project Setup

- Create a new Android Project
- Create empty layouts
- Implement Tentative Navigation between screens
- Choose copyright free UI template for better UX design
- Configure libraries - Butterknife

Task 2: Implement UI for Each Activity and Fragment

- Build UI for HomeScreen - MainActivity
- Build UI for Life Backlog Screen - Activity
  - Add different buttons - plus (for adding a task)
  - Right arrow, Bin as applicable in the list
- Build UI for Sprint Screen - Activity
  - Add different buttons for list tasks - right arrow, bin (to remove from the sprint)
- Build UI for Daily ToDo screen - Activity
  - Add different buttons for list tasks - right arrow, bin (to remove from ToDo)
- Build UI for Task screen - Fragment
  - Create edit, save, delete, tick symbol (for marking completion)
- Build UI for Completed Tasks screen - Activity
  - Create delete button for deleting the elements of the list

Task 3: Make UI operational for MainActivity and Main Menu with backend

- Create the functional Main Activity/Main Menu to allow user to browse to different pages
- Handle back button actions for all the activities

Task 4: UI and backend integration for Life Backlog Screen/Activity

- In case there are no tasks on the screen, appropriate message to be displayed
- Plus sign should allow create new task option on the Life Backlog Screen
- Create New Task to be configured as part of this task

  - Task to be addable to this main list
  - Task modifiable
  - Task deletable
  - Task could be moved to sprint screen
- Handle cancel/Back button action for add or edit option

Task 5: UI and backend integration work for Sprint Screen

- Integration with Life Backlog screen.
- When tasks added or removed, updated list should be visible
- Handle Delete - Integrity of data should be maintained. When deleted, the task will be moved back to Life Backlog list.
- If a task is edited here, should be reflected in the previous screen as well
- Implement appropriate toasts to handle the update/modify of task, deletion of tasks or movement of tasks to ToDo List.
- If a user clicks on right arrow, make task moveable to ToDo screen.

Task 6: UI and backend integration work for ToDo Screen

- Integration with Sprint screen.
- When tasks added, modified or removed, updated list should be visible
- When deleted, the task will be moved back to Sprint list.
- If a task is edited here, should be reflected in the previous screens (viz. Life Backlog, Sprint) as well
- Implement appropriate toasts to handle the update/modify of task, deletion of tasks or movement of tasks to ToDo List.
- On click of tick, the task could be marked completed and can be moved to Completed Tasks screen.
- If the task is marked completed, it should not be present anywhere else.

Task 7: UI and backend work for Completed Tasks Screen

- Tasks should be movable from the ToDo list to this screen.
- This screen should allow user the option to delete the completed task so that user can delete the task after a period of time (if required).

Task 8: UI and backend work for Task Widget

- Create Widget
- Link ToDo data to the Widget viewable list
- ToDo Tasks to be viewable from the ToDo list in the form of a widget.

Task 9: Implementing Google Play Services

- Implement AdMob for ads
- Implement Analytics for understanding the movement of tasks from different screens

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