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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**"
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GitHub Username: geniushkg

BetterSleep

Description

Better sleep is android help assit user with monitor sleep health, it help insomnia patients by keeping records and also deploying scientific yogic sleep method to induce sleep.

Intelligent alarm which works on sleep cycle counts and wakes up user in light sleep so that users morning is pleasant.

Intended User

Insomnia patients and general user who wants to sleep better.

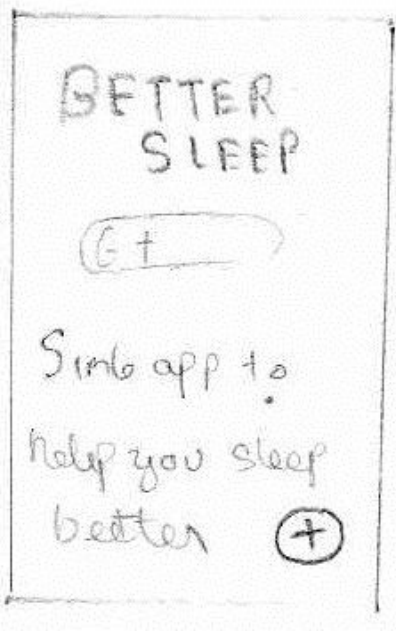
Features

- Provides Intelligent alarm based on sleep cycle algorithm
- Monitor and track sleep records.
- Saves data to cloud.
- Provides widget implementation for quick sleep debt counter.
- Helps Insomnia patients by using Yog Nidra Technique.

User Interface Mocks

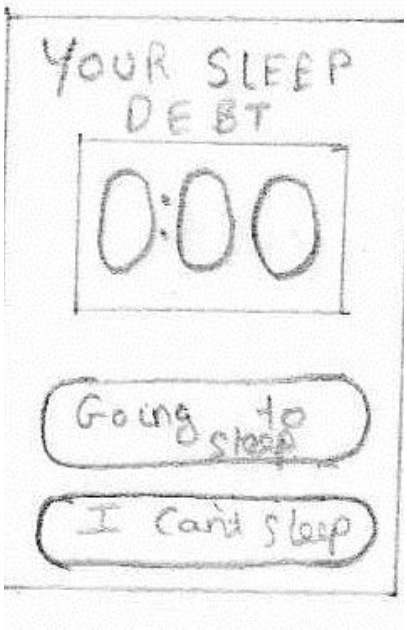
These can be created by hand (take a photo of your drawings and insert them in this flow), or using a program like Photoshop or Balsamiq.

Screen 1



Login Screen , basic user authentication with help of Google Identity provided by firebase sdk.

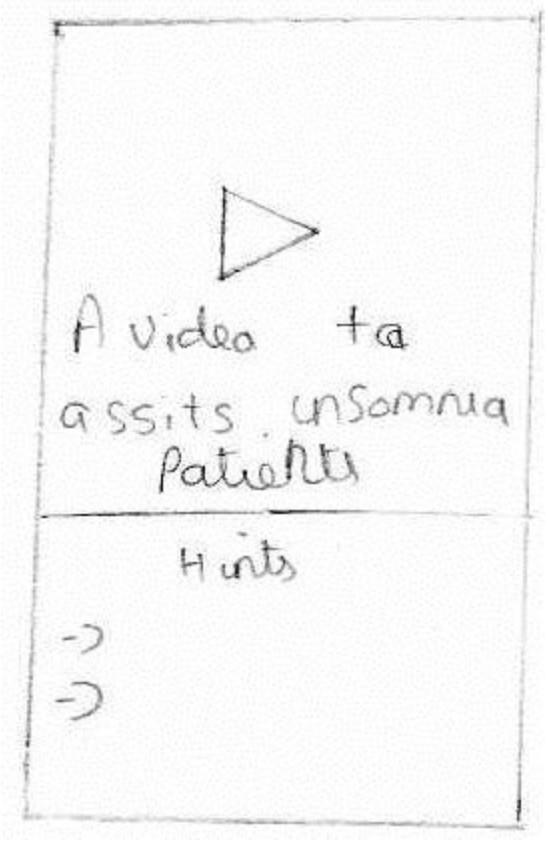
Screen 2



Main home screen , this shows users sleep debt , allows to punch in when user is ready to sleep
Or allows him to navigate when he can't sleep.

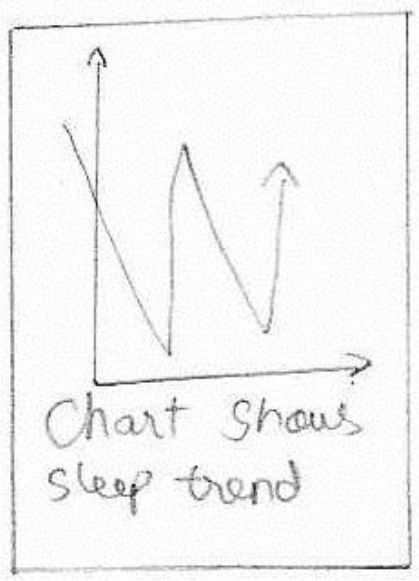
Add as many screens as you need to portray your app's UI flow.

Screen 3



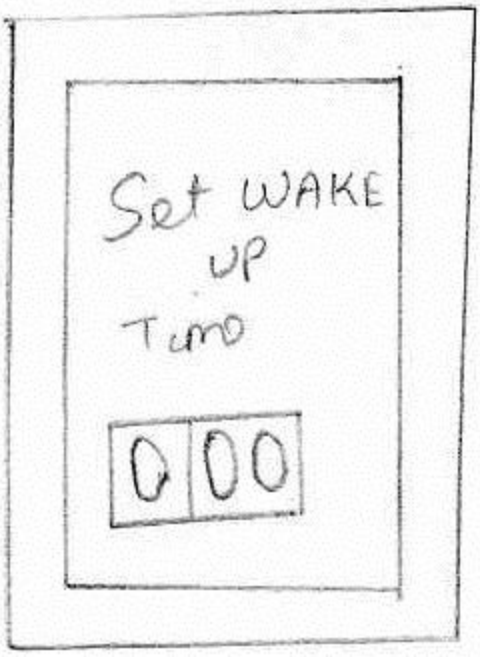
This screen help insomnia patient with sleep therapy , It’s known as yog nidra or yogic sleep which induces sleep to listener and gives full body relaxation.
This will be done by embedding player in app.

Screen 4



Visualise sleep data in chart , user can observe pattern in 2d charts.

Screen 5 - popup dialog in home screen



This helps to set alarm when to wake up.

Screen 6 :

Widget that shows data of users sleep debt.

Key Considerations

How will your app handle data persistence?

Data will be stored on Firebase Cloud as well as local disk persistence (offline capabilities) using firebase sdk
An content provider will be used to save and retrieve Sleep debt data.

Describe any corner cases in the UX.

User can see video which is in form of sleep therapy after punching in sleep timing.

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

Firebase sdk
Junit
Espresso
Retrofit

Describe how you will implement Google Play Services.

Google Identity (Firebase SDK)
Google Admob (optional if time permits)
Google Analytics

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

This includes gradle imports , skeleton of MVP architectures , define data models (repo) pojo class

- Data Model design
- Implement Content Providers

Task 2: Implement UI for Each Activity and Fragment

List the subtasks. For example:

- Build UI for Login Screen
- Build UI for Home , Sleep PunchIn
- Build UI for Yog nidra Sleep therapy video
- Build UI for Charts to display sleep trends implement loaders for data.
- Build Widget to display sleep debt.
- Implement Loaders to update UI from data source.

Task 3: Your Next Task

Implement Google Service

- Add sdk and indentity implementation
- Add config files

Task 4: Intelligent Alarm

Implement Sleep cycle algorithm

- Calculate offset to add in algorithm

- Update UI based on it.

Task 5: Widget Serivce

Implement IntentService for widget data

- Create layout
- Implement Service

Task 6: Implement Video Player

Add key and implementation. For example:

- Create layout
- Implement player

Task 7: Testing

Test thoroughly all use case with help of unit test and integration test.
Accessibility test for RTL support and d-Pad navigation.

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