



Health Driven App Report

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Write ahead

Android Studio project I have submitted in the first step is runnable and some features have been tested successfully.

What I did ?

In current phase, i designed and implemented the UI for app. Most of activities are constructed by nested `LinearLayout(horizontal)` and `LinearLayout(vertical)`. Nested linear layouts allow the modules and widgets being managed in a proper way. Activities as follows are created:

- LoginActivity
- MainActivity
- CalorieCounterActivity
- ExercisePlanActivity
- WaterIntakeActivity

- SleepScheduleActivity
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How do they work ?

Login Activity

This page is designed to become the initial page for new users once they open the application for the first time, and this page used to collect user's basic information, such as name, height, weight, phone(optional), etc. These data will be processed and passed to other pages.

- Info collection form
 - `EditText: FirstName`
 - `EditText: LastName`
 - `EditText: Weight`
 - `EditText: Height`
 - `EditText: Phone(Optional)`
 - `EditText: E-mail(Optional)`
- Go next button
 - `Button: Next` → Process data and redirect to Main activity

Main Activity

This page is the main function module and it contains few functional buttons and card shaped interactive widgets. Buttons allow users jumping to other corresponding activities. The rest widgets used to track user's health index, such as water intake, BMI(Body Mass Index), daily foot steps and etc.

- Welcome Banner
 - `EditText: Name` → Used to display user's name, for example, Welcome John Doe.
- Nav Bar
 - `Button: Calorie` → Used to redirected to Calorie Counter Activity

- `Button: Water` → Used to redirected to Water Intake Activity
- `Button: Sleep` → Used to redirected to Sleep Track Activity
- Widgets Field

There are some widgets which I acquire inspiration from Apple design and they are used to display health index in this section while few of them are interactive and rest are not. For example:

- weight and height: users can modified their height and weight here, these data could have small changes and the user would update them periodically.
- foot steps: the foot steps is a static value, usually it is gathered by the third party API. Generally, users can not modify it.

Calorie Counter Activity

Users will be redirected into this activity after they push the Calorie button in Main Activity.

- Calorie Intake Display Field
 - `CircularProgressBar: DailyCalorieIntake` → Used to display the percentage, calculated by daily calorie intake in total / daily calorie intake target. This module is imported from a third party library on Github, <https://github.com/lopspower/CircularProgressBar>
 - `EditText: DailyCalorieIntakeTarget` → display the calorie intake by text
- Others
 - `Button: AddRecord` → add and update new calorie intake

Exercise Plan Activity

Users can get into the page by pushing the button in `CalorieCounterActivity`

- `SliderView: StartTime` → select the time to start your exercise
- `SliderView: EndTime` → select the time to end
- `DropDownListView: SelectExercise` → pick one exercise from drop down list
- `RecyclerView: ExercisePlan` → all exercise will be added and displayed here. Note: the delete function is not implemented here.

Water Counter Activity

Users will be redirected to this activity after they push the Water button in Main activity.

- Water Intake Display Field
 - `CircularProgressBar: DailyCalorieIntake` → Used to display the percentage if daily water intake based on target daily intake.
 - `EditText: DailyWaterIntakeTarget` → display the water intake by text
- Others
 - `EditText: SetDailyWaterIntakeTarget` → set daily water intake target
 - `EditText: AddWaterIntakeRecord`

Sleep Schedule Activity

Users will be redirected to this activity after they push the Sleep button in Main activity.

- `SliderView: SleepTime` → decide how long you are going to sleep here. (6~12 hours)
- `SliderView: StartTime` → select time to sleep
- `SliderView: EndTime` → select time to wake up
- `Switch: AM/PM` → control AM and PM by switch this button
- `EditText: TimeDisplay` → display time in this field
- `Button: Confirm` → confirmed sleeping plan will be added to a list below this button
- `RecyclerView: SleepSchedule` → this field tracks users' sleep schedule Note: the delete function is not implemented here.

Compared with proposal

Exercise and Workout Guidance

- A variety of pre-designed workout plans are listed on the app
- Customizable workout routines based on user preferences

Calorie Counter and Diet Management

- Daily calorie intake calculator
- Customize daily calorie intake

Generate reports weekly based on daily calorie intake in past 7 days
(Discarded)

Activity Tracking

- Step counter and pedometer for monitoring daily physical activity
- Rewards system to motivate users to reach activity goals

Generate reports weekly based on daily steps in past 7 days (Discarded)

Daily Water Intake

- Track daily water consumption
 - Customizable reminders and notifications to stay hydrated
- Statistics of daily water intake (Discarded)

Physical Health Indicators

- Record user's height and weight
- Judging whether the user is healthy or not based on BMI

Sleeping Schedule Tracker

- Customize when and how long to start sleeping and add notifications
- Generate reports for sleep schedule monthly (Discarded)

