

Applicazioni per Dispositivi Mobili

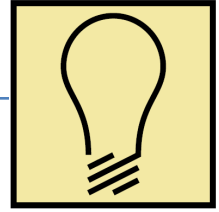
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myBus

Design documentation

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Strategy



Product Objectives

Product Overview

This application is essential to all who use the public bus line even if only once in a while. Its goal is to make extremely easy the use of public transports by simplify the buying process of new tickets or by finding the nearest bus stop to your position showing the associated bus timetable. With this and other features myBus will be fundamental for any bus traveler.

The app aims to be usable by a vast diversified audience, from “middle-aged worker” to offsite students.

Competitors

- Moovit: this app is great and it works for urban and extra urban bus lines in all the country. Its goal is to organize in just one application all the public transports of a country not forgetting to give accurate and useful informations like the exact ride of a bus line. It has even the feature that guides the user to a destination by combining bus lines and timetables. Nevertheless Moovit can't be as accurate as a specific municipality's public transports app and doesn't allow the user to buy tickets and organize them.
- Other similar apps are dedicated to specific municipalities but there isn't one dedicated to l'Aquila.

User Needs

Needs & goals

One issue we noticed when we visited other modern cities of our country like Milan or Turin was how the public transports were great organized with apps and other features and how badly organized l'Aquila was. So we decided to develop an app to reorganize l'Aquila's transports. We started from the actual organization's problems to solve them:

- Tickets purchase is limited to physical stores;
- Bus timetables are written in confusional and old style paper sheets, or in a badly organized website;
- A part for the biggest bus stops, there isn't an easy way to find side stops;
- The impossibility to know if a specific bus has or not passed to a bus stop;

To solve these problems and to simplify the user's life the app has various views that displays in a simple and intuitive way:

- Bus timetables;
- Bus stops position in a map;
- A personal wallet to buy and organize tickets;
- Bus preferences;
- News and communications helpful to users.

Personas



Name	Davide
Age	17
Family	<u>Parents</u> and <u>sister</u>
Occupation	High-School <u>student</u>
Internet Use	Social Network, School <u>research</u> , Online games
Technical Profile	Very comfortable with <u>technology</u>
Registered residence	Live in the country side
Bus <u>usage</u>	<u>Every</u> day to go to school

Davide is a high school student in l'Aquila that lives in the city's countryside. He does sports and meets friends usually in the city center or in parks near the school cause his house is too far. Generally he leaves the house in the morning to go to school and he stays in town as long as he has something to do there like purchases or other activities.



Name	Sara
Age	35
Family	<u>Husband</u> and son
Occupation	Office worker
Internet Use	Social Network, <u>daily research</u> , <u>videocall</u> and smart working
Technical Profile	<u>Quite comfortable</u> with <u>technology</u>
Registered residence	Live in a flat in the city center
Bus <u>usage</u>	3 times a week to go to work

Sara is a mom and a wife that has the possibility to do smart working so she decides to avoid using the car in town to save money and reduce air pollution. She generally moves by foot, but she takes the bus to get far destinations like the office or the market. She is an habitual woman so she takes always the same bus lines.



Name	Franco
Age	72
Family	<u>Wife</u>
Occupation	<u>Retired</u>
Internet Use	Messages, reading and writing e-mail
Technical Profile	Not <u>comfortable</u> with <u>technology</u>
Registered residence	Live in a cottage in the <u>outskirts</u>
Bus usage	Sometimes to run <u>errands</u>

Franco is a grandpa that leaves home just to meet his family or do some “once in a while errands” like a medical examination or a visit to the bar where he plays briscola with his old friends. He is not very used to take buses cause he has always had his own car, but his license is expired so, while waiting for the renewal, he is trying to move with public transports for the first time in his life.



Scope

Features

Main features:

- Notify the user urgent news and reminder of the bus line;
- Show the users the buses timetables;
- Show the user a map of bus stops;
- Show the user the news about buses;
- Buy tickets;

Other requirements

- Few views and easy navigable;
- Everything must be done inside the app;
- Ask for user's credentials only when necessary (checking the calendar, receiving notifications and consulting the map, for example don't require authentication);
- Avoid the use of the keyboard (when possible);

Scenarios



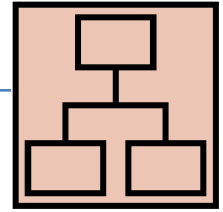
Davide lives quite far from the city center and to move around his city uses often buses, to go to school, to go out with his friends or to go to the gym. Navigate on the transport company's site is quite difficult because the interface is not very intuitive and the servers are often out of order, moreover he often find himself waiting at the bus stop due to slowdowns and delays in his bus. Talking with his schoolmates who often found themselves in the same situation as him, he discovered the existence of myBus and from that day on, travel in his city has become much easier for Davide.

It's 8 am in the morning, after a long night spent sleepless Sara is late for work, her boss is waiting her for an important presentation at work. She rushes the bus stop only to realize that is too late for her usual bus so she search on internet to find the next bus passing by her stop, but maybe for the anxiety or maybe for the messy bus schedule of the company she can't figure it out. Right when she's about to give up she remembered of MyBus, in just a few moments she find out the next bus which could take her to work.

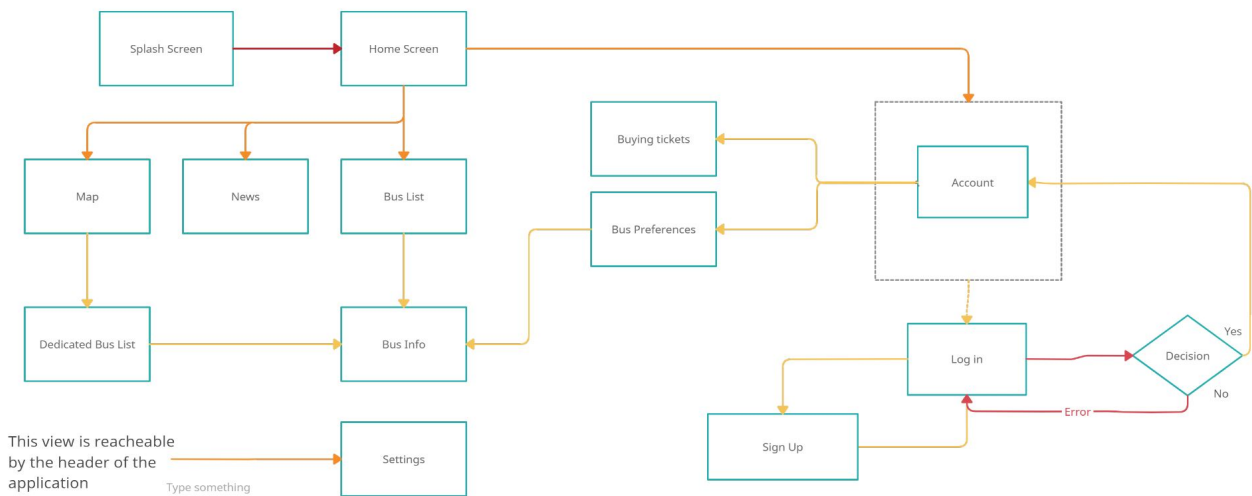


It's 4:30 pm when, after his daily afternoon rest, Franco decides to go playing cards with his friends at the bar. When he had his first daughter he decided to move from the city center to the outskirts to grow her up in a quiet neighborhood, so now he has to travel some kilometers to reach the bar in the city center. He goes to the bus stop trying to understand which bus to take and the relative timetable. In fact he has always asked to some nice guy at the bus stop, but today there is nobody. Fortunately his nephew has downloaded an app to his new smartphone called myBus that will help him to get to the bar.

Structure



Navigation model



Splash Screen:

This is the opening view of myBus. The user will see the view when he starts the app.

Home Screen:

This view is the first interactive view of myBus: here the user can see the most recent news and communications with the possibility to open a single new and get the complete article.

News:

This is a view that shows the details of a single news.

Map:

This view shows a map where are visualized all the bus stops. This view allows the user to click on a single stop to access the “Dedicated Bus List” view.

Dedicated Bus List:

This view is a small list of bus list relative to the bus stop selected in the map.

Bus List:

This is a view that shows the list of buses the user can take in the city.

Bus info:

This is a view that displays the bus timetable relative to a single bus line.

Settings:

This view allows to personalize the user experience and modify the user credentials.

Log in:

This is the view that allows the user to login and access to the reserved areas. We decided to restrict access only when necessary, so the user can still use the other features without annoying delays.

Sign up:

This view allows the user to sign up with email and password if he has never done it.

Buying tickets:

Once logged in, this view allows the user to buy new tickets.

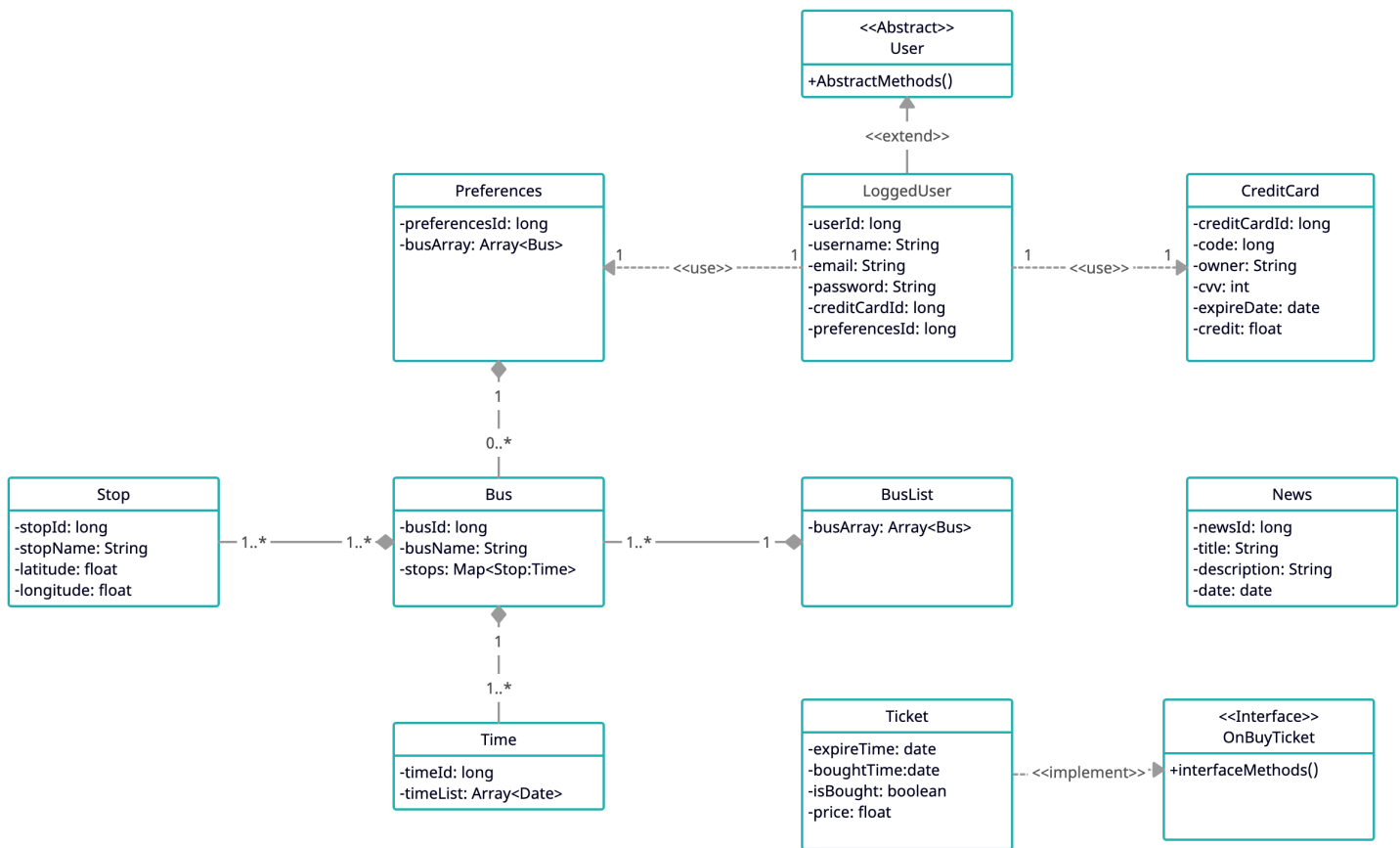
Bus Preferences:

This view displays the user’s favorites bus lines. We decided to restrict the possibility to express preferences only by a logged user

Account:

This view displays the information about the user and allow to buy a ticket or the access to the preferences of the user.

Data model



User

This entity represents the user of the application. We decided to make it an abstract class to generalize the logged and unlogged users.

LoggedUser

This entity represents the logged users

Bus

This entity represents a bus. Every bus is stored in a **bus list** that takes the attributes directly from a database. We assigned a map key-values of stops and timetables to every bus.

Preferences

This entity contains a specific list of buses specified by the user. This list is initialized after the user has signed up and speed up the research of the most used bus lines by the user

BusList

This entity contains the general list of all the bus lines

Stop

This entity represents the bus stops. It is part of a bus attribute. Every stop is stored in map key-value that takes the attributes directly from a database.

Time

This entity represents a general bus' timetable. Every timetable is stored in map key-value that takes the attributes directly from a database.

CreditCard

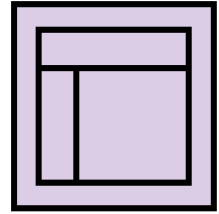
This entity simulates a real credit card with all its attributes. It can perform purchases as long as it has some credit left.

News

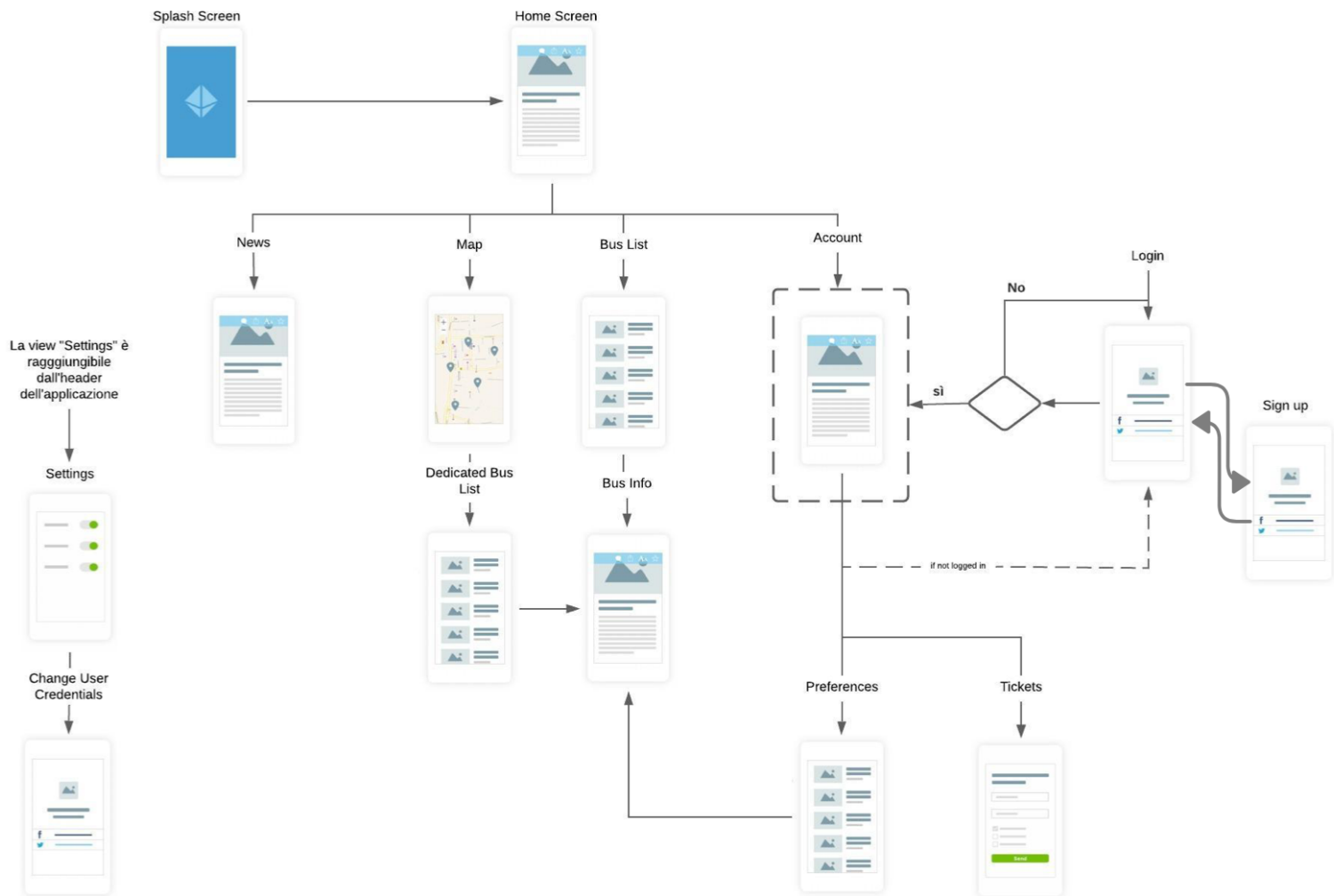
This entity contains the details of a single new. The news are single announcements released by the bus company, google services, local journal... relatives to transports and viability.

Ticket

This entity simulates a real ticket with its duration and price.



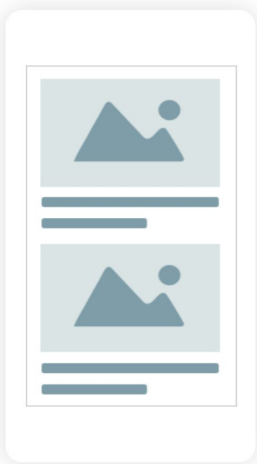
Skeleton





Splash Screen

In the Splash Screen we choose to show the app's logo and the app's name, it will last for a couple of seconds before redirecting the user to the Home Screen view. Once the user reaches the Menu he can't go back to the Splash Screen.



Home Screen

This view is the center of the app structure. Here are displayed the news preview and four buttons to link the map view, the account view, the bus list and the same home screen.



News

This view show the news selected in the home screen area. it shows the details of the news such as the title, an image and the description of the news.



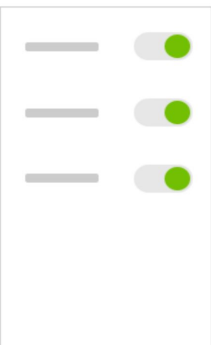
Bus List

This view displays a list of all the bus lines, and allows the user to search a specific line. If the user is logged it displays even a sign “★” to add the bus line to the preferences.



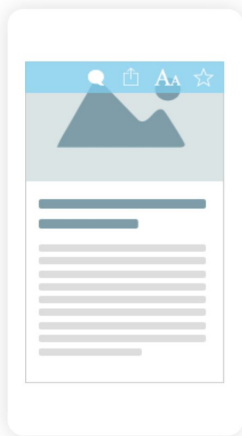
Map

Visualize a map that shows all the bus stops, highlighting them with a specific marker. The user can interact with them to show the relative bus stop timetable.



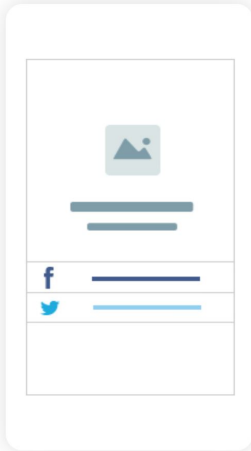
Settings

The settings view is reached by tapping on the gear icon located in the header of the application. This view allows the user to personalize his experience inside the application. It permits to activate or deactivate the notifications and to modify the profile by changing user informations or by adding/removing credit cards for purchase in app.



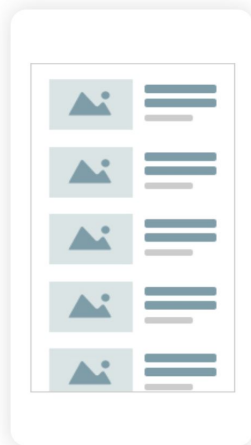
Bus Info

This view is reached by tapping the chosen bus line or by the generical bus list or by the dedicated bus list. It shows the relative timetable of the selected bus line. It's easy to understand for the user.



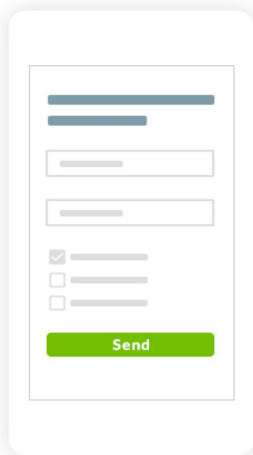
Log In

This view is reachable only in one way: by touching the account button. It displays two text fields where the user has to type his email and password. If the login fails the view is refreshed but this time it shows also the warning message "Email or password wrong" in a red field. If the login successes it redirects to the account page.



Preferences

This view is reachable only from the account view and displays a list of bus lines chosen by the user.



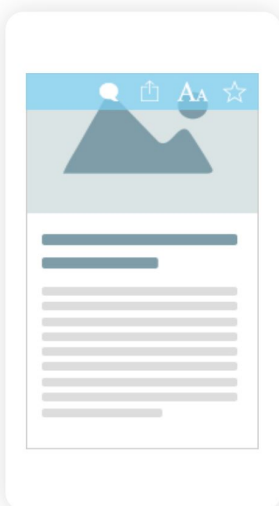
Tickets

This view is reachable only from the account view and displays a list of possible tickets to buy (90min, daily, weekly...) with the relative price and a button to add them to the cart. To complete the purchase the user clicks to the button "buy the cart" and chose the card he wants to pay with.



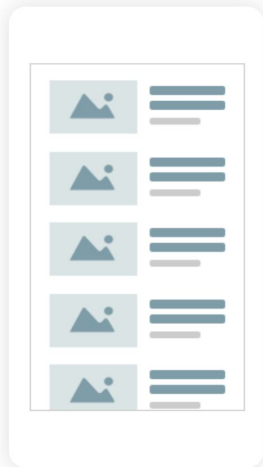
Change User Credentials

This view displays some text fields that permit the user to change his own credentials like email, password or name.



Account

In this view the user can interact with his personal information like email or name and, more importantly, can see his preferences and buy tickets.



Dedicated Bus List

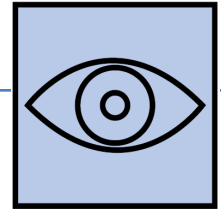
Is a view accessible by selecting a marker in the map which shows the bus list related to the stop selected.



Sign Up

This view allows the user to sign up in the application. It takes the access data of the user (username, password, email). There is also the option to log in by social networks such as Facebook or Google.

Surface



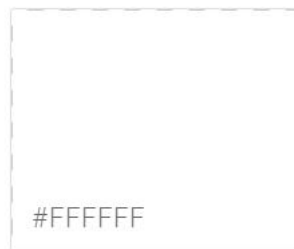
The color orange is inspired by the color of the buses in l'Aquila so we thought that it could be the best choice to remind users what the app is about. We choose a various palette to create a better visual of the app.



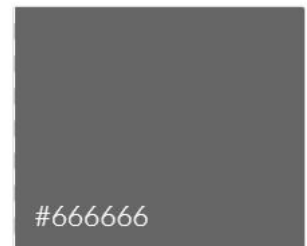
The
font is
Sans
cause

it well
the

palette and it is formal and easy to read.



chose
Gill
Bold
we
thought
fit with
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We choose a minimalistic icon to make easier the identification of the app and at the same time it remind to the color and the goal of the app.

