**Immagine che contiene testo, Carattere, Elementi grafici, logo

Descrizione generata automaticamente**

**Master’s Degree in Computer Science**

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**RoomFinder**

A report for the Mobile Programming and

Multimedia Project

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# **1 The project**

This project has been developed for the Mobile Programming and Multimedia course and it consists in the development of a mobile application using a cross-platform development approach to optimize the writing of the code for both Android and iOS platforms.

This section presents the idea of the mobile app, considering the contribute it can bring through people, and the kind of users who can retain the developed app a useful and effective tool for their daily life.

## **1.1 Mobile app**

Students who want to move to another city for study reasons should have the possibility to examine in a simple way all the rental proposals of the city without making a lot of calls or passing through a lot of rental agencies. This represents something that is missing in the largest Italian cities and that is the reason behind the idea of the chosen application.

The original idea of **RoomFinder** was to develop an app that allows the Italian student community, composed by both national and international students, to easily review all the rental proposals of the various accommodations scattered around the city of studies. The user can examine the various proposals by comparing prices, location and using all the other metrics offered by the app and useful for a particular facility of interest. A further important aspect is the possibility of being able to consult the possible roommates already present through a short description which will inform the user, who is carrying out the search, about the kind of persons he will meet choosing that facility. It will also be possible to engage in a chat with the host of the possible facility with the aim of exchanging useful information for both parties.

## **1.2 Users segment**

The application represents a useful tool for multiple kinds of users. In fact, RoomFinder is not only a useful tool for students who are looking for an accommodation but even for private hosts who want to make available their spaces. RoomFinder represents also an effective solution for international students who can encounter difficulties in interacting with people who only talk Italian. In fact, the application is available in both Italian and English version to extend RoomFinder’s users segment.

In RoomFinder there are three types of users:

1. **Nonregistered users**: visitors that are not subscribed to RoomFinder. This kind of user can view all the rental proposals present in the system but to access to further features the subscription is necessary.
2. **Registered users**: registered students who are looking for an available and affordable facility. This kind of user can view all the rental proposals present in the system and he can access to further features that can power up his/her user experience. Some of these features are the possibility to save ads, chat with a host to request more information and view the roommates’ details.
3. **Hosts**: registered owners of facilities present in the system. This kind of user can add new ads in the system and/or manages ads already added. Hosts can also respond to requests of information from students via a chat system.

# **2 Mobile Design**

The main RoomFinder pages have been designed using Figma tool. That tool allowed us to easily design pages, considering the mobile design principles seen during lessons, rather than directly code the pages.

The mockups and all the mobile design choices are discussed in this section.

## **2.1 Mockups**

Before starting to design the mockups we had to decide the color palette for the application. Considering that colour theory is a complex theme that interacts also with emotional design and cultures we decided to make deeper research before choosing the main color and its variations for the palette. What we have found is that **color** **blue** conveys trust, calmness, professionalism, and inclusivity, all of which are crucial for an app aimed at helping students find reliable rental accommodations in a new city. The emotional comfort and broad appeal of blue can significantly enhance user experience, making the app a trusted and preferred tool for our users segment. This guided us to the choice of a blue palette for the entire application.

After that we produced different mockups for the main pages of RoomFinder, dividing them based on the type of user who is using the app. All the pages respect the **just-in-time principle**, showing only the elements that are necessary for that page.

### **2.1.1 Nonregistered user**

Immagine che contiene testo, calzature, vestiti, schermata

Descrizione generata automaticamente**FIRST VISIT**

This page is the first one every user will see the first time he/she runs RoomFinder. The idea is to transmit a message to capture the user curiosity through the **humanization**, involving the user through a humanized figure that represents happiness, calmness and trust of students like him/her that found their stability using RoomFinder.

Furthermore, there is a written message that encourages students and hosts to use or be part of the RoomFinder network.

At the end the user, if he is convinced, is ready to start the experience through a tap on “*Let’s start*” button which redirects the user to the rental proposals search page where, ideally, a small tutorial on how to use the app is shown.

**Immagine che contiene testo, schermata, Sito Web, Pagina Web

Descrizione generata automaticamenteRENTAL PROPOSALS SEARCH**

After watching the short tutorial on how to use the app, the user lands on the rental proposals page, the homepage of RoomFinder, where he can search offers for a particular city of interests or explore some of the latest inserted adverts. The layout of the page is simple and gives to the user all the information and instructions it needs to begin the experience in RoomFinder. The above part of the page allows users to search for facilities located in the digited city and the rest of the page is dedicated to show to users some of the latest ads. Users can view more details for a single insertion by clicking anywhere inside the insertion box or more intuitively by clicking on “*View the solution*”. Furthermore, it is even possible to save insertions of interest by clicking on the top right corner button of each insertion box. This functionality is reserved to only registered users, but the idea is to show to the user all he can do in the application and then, when he tries to use a functionality that requires a RoomFinder account, redirect him/her to the login page (discussed later in the document) explaining him why.

The content of the page is easily reachable reducing the user effort. The bottom bar provides the access to all other main pages of the application, even if some of them (as saved ads, chat or account) are available only for registered users. Anyway, when the user tries to use some of these functionalities is automatically redirected to the login page.

Immagine che contiene bianco, design

Descrizione generata automaticamente**SEARCH RESULTS**

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Immagine che contiene testo, arredo, schermata, interno

Descrizione generata automaticamente**DETAILED PAGE FOR A FACILITY**

This page represents a detailed page for a facility present in the system and on which user tapped during its navigation. The page contains all the information needed to better understand what the facility offers.

In the top area we have a slider which shows some photos of the room. In general, it is true that sliders should be avoided if possible because they cause the loss of the user’s overall vision. In this case the user has full control over the slider, without the problem of annoying timers that update continuously the slide, and he can expect what comes next since it a simple slider of the facility photo. Users can move on and back the slides with a simple gesture from the left or right depending on the movement they want to do. This gesture is taught with a tutorial. Furthermore, in every moment user knows at which point of the slider he is thanks to the numbered label on the right side. In the top area there are also two other buttons, a back button on the left and another button on the right to save the insertion.

In the page there is even the possibility to open a detailed page about the current renters already present in the facility, but this is a functionality available only for registered users, so when a user taps on “*More details*”, as before, will be redirected to the login page. At the end it is possible to request further information, regarding the facility, directly sending a message to the host through the floating trigger button placed in the bottom part of the screen.

Immagine che contiene testo, schermata, Carattere, logo

Descrizione generata automaticamente**LOGIN**

This page offers the possibility to access to the RoomFinder account. Users can be also redirected to this page when they try to use a functionality not available for non-authenticated users. In this case, since the user is automatically redirect here, the page provides an explanation about the necessity to have an account to use all the functionality that RoomFinder offers.

The page is simple, and it provides a standard form to authenticate users by an email and a password. The labels for both inputs have been placed above the input to avoid that users hide them unintentionally during digiting the input.

If the user has not a profile it is possible to access to the registration page.

To avoid mistake by the user in the comfort zone, the “cancel” button, useful to close the login page, has been placed in the top left corner.

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Descrizione generata automaticamente**REGISTRATION**

To create a new account every user can pass through the registration page. The layout of this page is pretty much the same of the login one, so all the considerations discussed for the login page are still valid here.

The only thing that changes is the form field “*Type of account*” which is related to the purpose for which the user is creating a new account, so to be a student who is searching for a house or a host who want to publish insertions. The user has to select one of the two kinds of account by tapping on the label “*Student*” or “*Host*”. To make everything clear an info button, placed near that field, allows to obtain more information about the different types of account, ideally opening a pop-up that can be closed after everything is clear.

### **2.1.2 Registered user**

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### **2.1.3 Registered host**

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