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DS Estate System

Documentation

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1. Introduction

The aim of this document is to offer a guide that will help in the understanding, using, and further developing the DS Estate Property management system.

The DS Estate Property management system is a platform that supports the short-term rental process for both renters and property owners. Property owners by registering in this platform are allowed to list their estate, along with some basic information for it, and get reservations from the platform's users conveniently. On the other hand, users that are interested in renting a property have the ability to browse the different options that exist in the platform and by registering in it they can also make their online reservations.

This document is divided into a few central parts to assist both users and platform developers. The user manual provides instructions on how the platform can be used and also showcase all it's functionalities with screenshots for better ease. Developers too will benefit from this documentation since the last chapter is specifically written for them and includes some future improvements that are recommended for the current state of the platform. These suggestions aim to guide them in their future development efforts to ensure that the system continues to evolve and meet user needs in the best way possible.

2. User Manual

The DS Estate Property Management System was created to offer a pleasant

experience for property owners and renters. The following user manual provides instructions for the use of the platform and shows all the available features integrated in it.

Home Page:

The home page is the main page that greets users. It introduces them briefly to what the application does and provides navigation options. More specifically, at the top there's a navigation bar with links to the Home, Feed, Create Listing, and Login/Logout pages. In smaller screens the navigation bar transforms into a hamburger menu for better user experience.

There is also a footer section, which appears at the bottom of all the pages of the DS Estate Application and provides some contact information for the company, along with an iframe with a Google Map showing where the company offices are located.

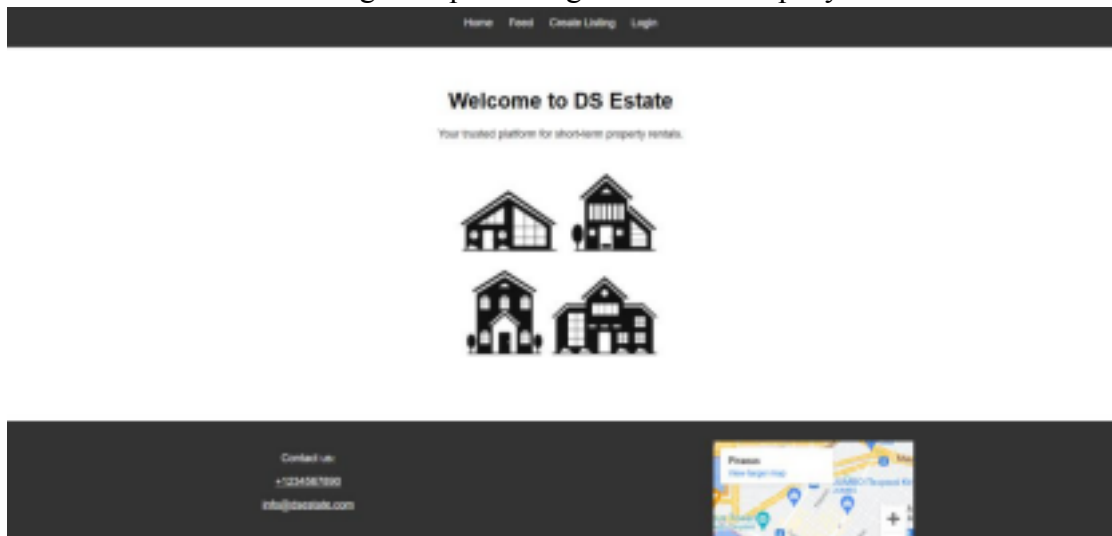


Figure 1: Home Page

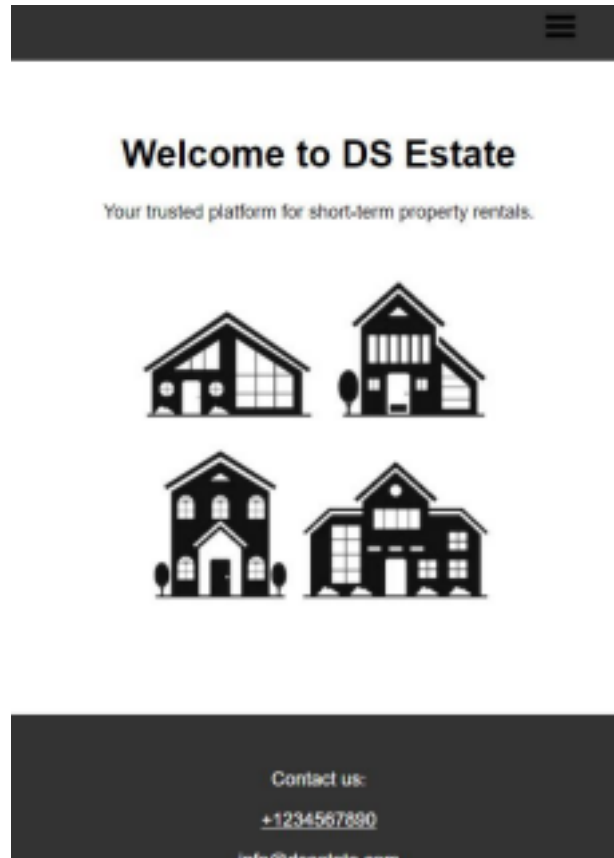


Figure 2: Home Screen - Small Screen

Registration:

For the users that do not have an account, there is the option to register on the application by clicking on the *Register here* link on the login page.

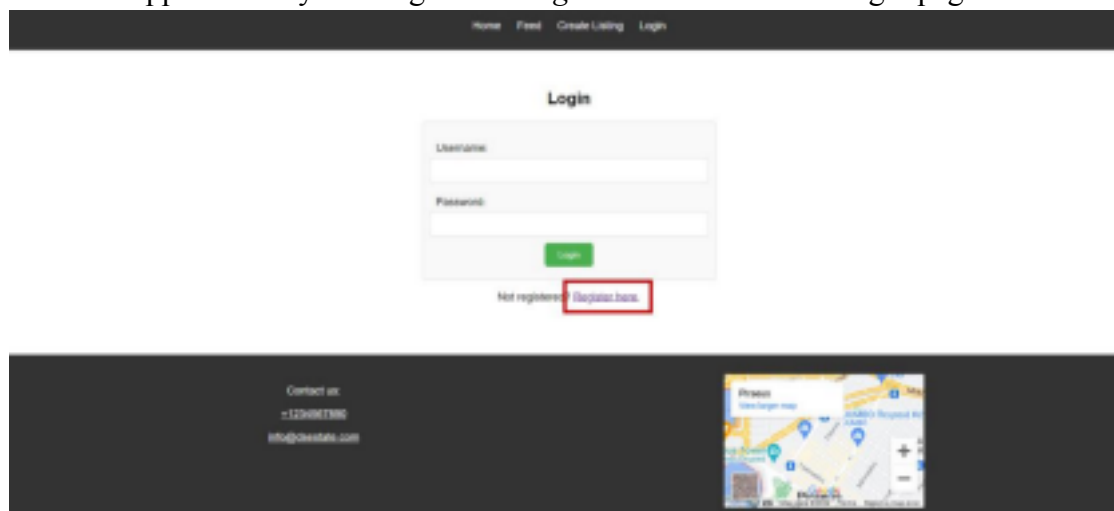


Figure 3: Access Register Page

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The next step requires to fill out the registration form with the following details:

- **Name** (only characters)
- **Surname** (only characters)
- **Username** (unique)
- **Password** (4-10 characters, at least one number)
- **Email** (must contain '@' and be unique)

With the submission of the form an account is requested to be created. In case of a successful registration, you will be redirected in the login page where you can fill the form with your account details and browse the application as a connected user. If your information have incorrect format you will receive accordingly error messages.

Figure 4: Register Page

Login:

To log in, click on the "Login" link in the navigation bar. Enter your username and password into the form and submit it. If your credentials are correct, you will be

You can now book properties or create listings for them.

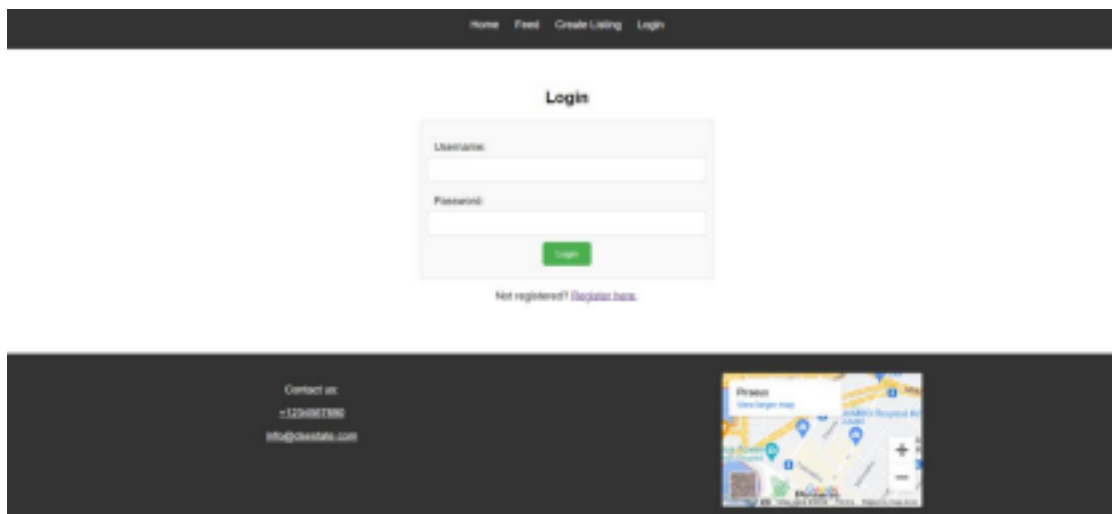


Figure 5: Login Page

Logout:

Once logged in, the Login link in the navigation bar changes to Logout. You can click *Logout* to end your session and return to the home page.



Figure 6: Logout

Feed:

Go to the navigation bar and click on the *Feed* link to see all properties that are

currently available. This page can be used for viewing purposes, even if a user isn't logged in. Each listing has an image, title, location, number of rooms in the property, price per night, and a button you can push to book it.

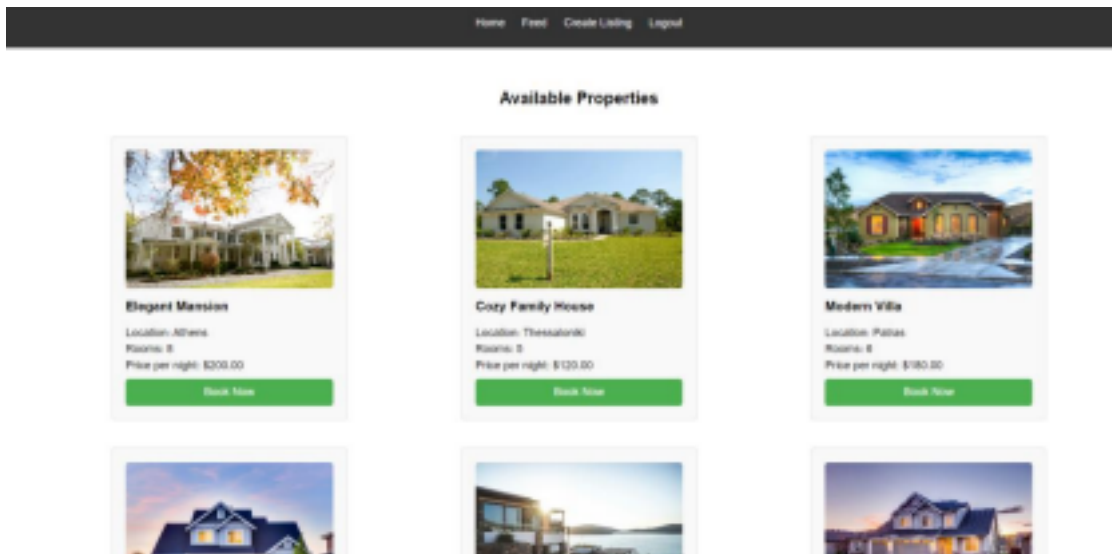


Figure 7: Feed Page

If no properties are available, a corresponding message will be displayed.

Create Listing:

Click on the *Create Listing* link in the navigation bar and fill out the form with the property details for the property you wish to list:

- **Title** (only characters)
- **Location** (only characters)
- **Number of rooms** (integer)
- **Price per night** (integer)
- Upload an **image** of the property

Submit the form to create a new listing. You will be redirected to the Feed page, where the new listing will be visible.

Home Feed Create Listing Logout

Create Listing

Title:

Location:

Number of Rooms:

Price per Night:

Upload Images:

Choose file No file chosen

Create Listing

Contact us:

Figure 8: Create Listing Page

Book a Property:

After you sign in, click on the “Book” button on the listing of the property you want to rent, in the Feed. On the booking page that you are redirected to, select the dates you want to check in and out to confirm that they're available.

Home Feed Create Listing Logout

Book Property

Elegant Mansion

Location: Athens

Rooms: 8

Price per night: \$200.00

Start Date:

End Date:


Check Availability

Contact us:

Figure 9: Booking Page – Date Selection

If the property is available, the form will expand to include your name, surname, and email (it will be prefilled with your account information, so you only need to confirm it).

Book Property



Elegant Mansion
Location: Athens
Rooms: 8
Price per night: \$200.00

Name:
test

Surname:
test

Email:
test@gmail.com

Final Payment Amount: \$1,836.00

Confirm Booking

Figure 10: Booking Page - Client Details

If the dates overlap with another booking, an alert will notify you to select different dates.

Sorry, the property is not available for the selected dates.

OK

Figure 11: Not available Property Alert

The DS Estate Property management system is a platform that facilitates the short term property renting process for both renters and property owners. Even though it has many helpful features that can make it popular, there are some improvements that can be implemented to allow it to get an even more competitive position in the market. These features are listed below.

Enhanced User Authentication

For web services, implementing secure and advanced user authentication methods are necessary since they often become targets of attackers. Moreover, providing the best user experience and convenience possible is an important factor to take into consideration when implementing such web platforms. Two-factor authentication (2FA) is an advance user authentication method that can achieve both of the above by adding significant strength in a single set of credentials. With this method, further than the usual username and password, another factor from a pool of possibilities, including SMS texts, email, phone calls, or hardware tokens, can be used to confirm the user's identity. That way both high level of security is achieved while the user is not overwhelmed with complex credentials or other inconvenient techniques that could be used to authenticate. Moreover, integrating single sign on methods and more specifically social media login options (e.g. Google, Facebook) can significantly improve convenience for users in both the login process as well as in the registration.

Advanced Property Search and Filters

Advancing the filtering and sorting option in the platform, allow users to search more efficiently for their desired property that best fits their needs, contributing in enhancing their overall experience. Filters that are especially helpful are location, price, number of rooms in the property as well as the existing amenities, such as pools, parking etc. Furthermore, useful shorting options of the existing listings can be shorting by price (low to high, high to low), shorting by popularity, or shorting by rating.

Reviews and Ratings

Another useful feature that can advance the platform can be addition of a review and rating system to both the property listings and the users' profiles. In the first of these, guests can rate properties that they have stayed at by providing feedback which will be shown directly on the listing. That way future guests will have a better understanding of what they can expect from the property based in past experiences. Also, property owners can rate guests providing full transparency to other property owners that may host them.

Multi-Language Support

Another very useful and important feature to be implemented in the platform is providing support for several languages that can attract more people to use it. Users from various parts of the world will be able to communicate in their native language with the system which will enhance their overall experience with the platform and make it much more likely to book their desired properties through it.

From the above it is very clear that there are many ways to enhance the DS Estate Property management system and add more useful features to it. These future implementation ideas can help the platform to meet greater success and establish a competitive place in the market. However, these upgrades must be made while reserving a high level of security and reliability.

