MBARARA UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF COMPUTING AND INFORMATICS

DEPARTMENT OF COMPUTER SCIENCE

WEB DEVELOPMENT

CSC2207

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REG: **2021/BCS/102/PS**

HOUZZ CLONE WEBSITE REPORT

1. **INTRODUCTION:**

A well-known online resource for architecture, interior design, home remodeling, and decor is called Houzz. Houzz offers a huge array of tools and inspiration for all things related to creating and upgrading living spaces, acting as a comprehensive hub for homeowners, design lovers, and professionals in the home sector. Houzz enables customers to explore design concepts, interact with experts, and start their home improvement journeys with an enormous library of photographs, essays, product suggestions, and expert advice. Houzz is an excellent resource for anybody interested in improving the aesthetics and functionality of their living spaces, whether they're looking for design inspiration, professionals to employ for their projects, or just want to learn more about it.

2. **WEBSITE SELECTION:**

I selected this website because of my passion for design and architecture. Having interest in design, architecture, and home improvement inspired me to clone a website like Houzz to create a similar platform that caters to this niche as the website also explores the countless styles, cultures, and aesthetics. Due to its complexity I selected this website the enhance my learning and skill development as it can serve as a valuable learning experience for web development, programming, and project management skills.

3. **PROJECT OVERVIEW:**

To complete this project, I used a combination of JavaScript, Django, HTML and CSS to recreate the Houzz website. Visual Studio Code served as my primary code editor, while Git facilitated version control to build a user-friendly interface, diverse content, and interactive features.

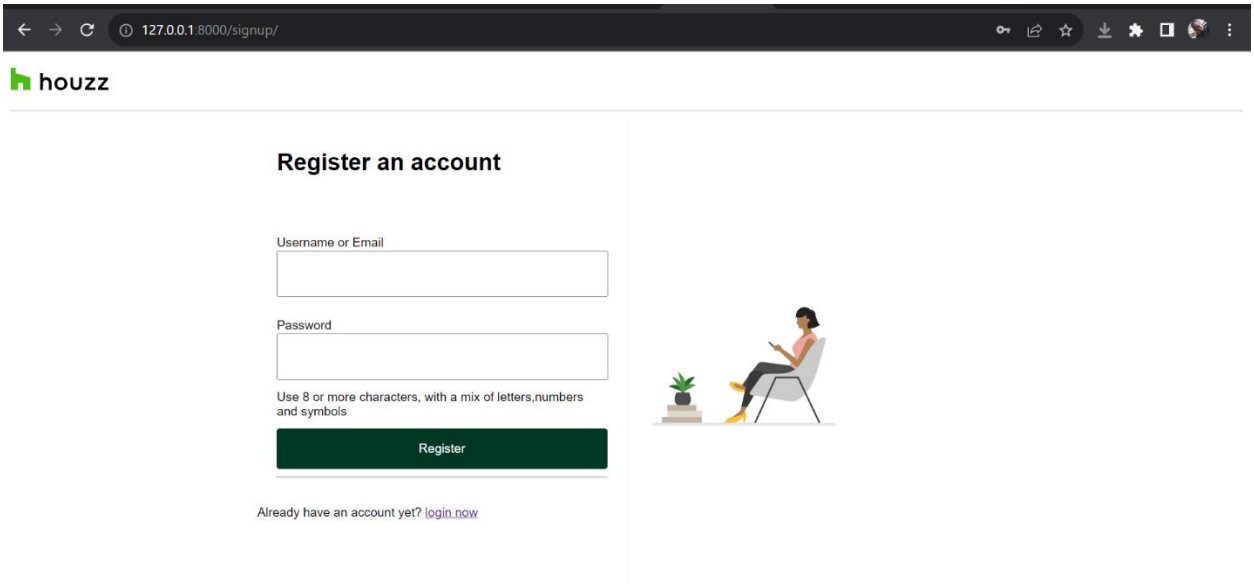
4. **THE CLONING PROCESS:**

   I created a Django project called houzz_project where I created apps for the different parts of the website i.e. cart, join, sign_in, sign-up, sale. I further created models for defining the structure of the application's database and managing the data stored within it.
   I created templates using the Django's template engine where I designed the different interfaces for the website.

5. FUNCTIONALITY:

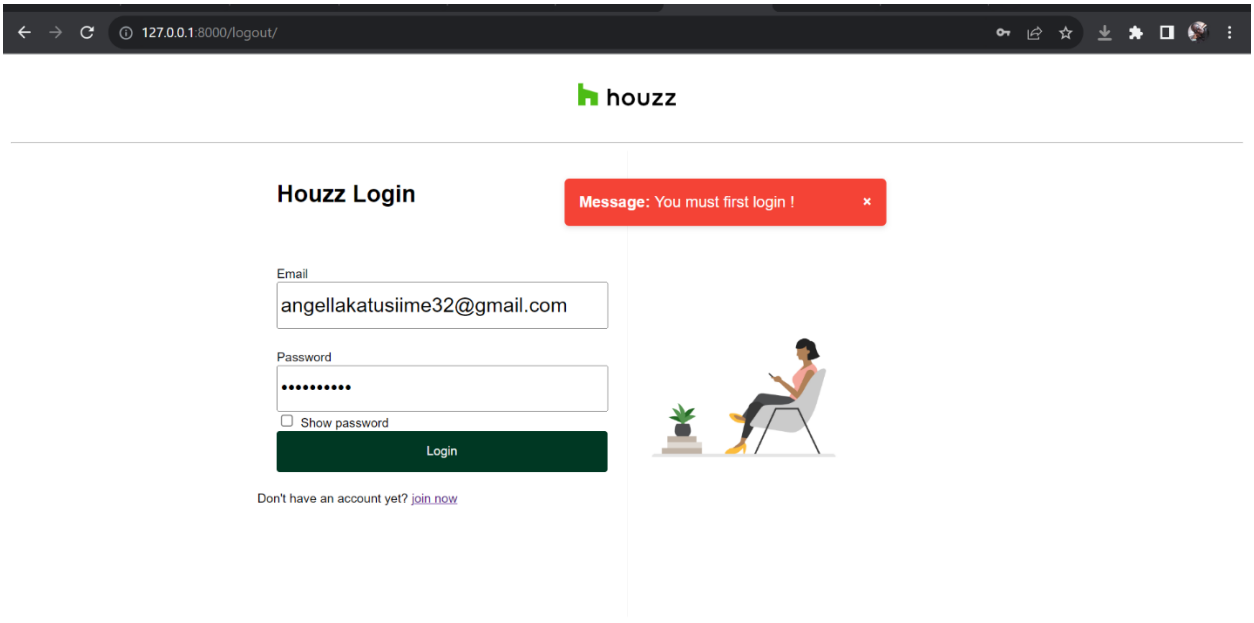
User Authentication and Registration

Using Django's in-built authentication I created a registration form for users to be able to create accounts which enable them to securely login their credentials so as to be able to access the dashboard. One cannnot login in unless they have an account.



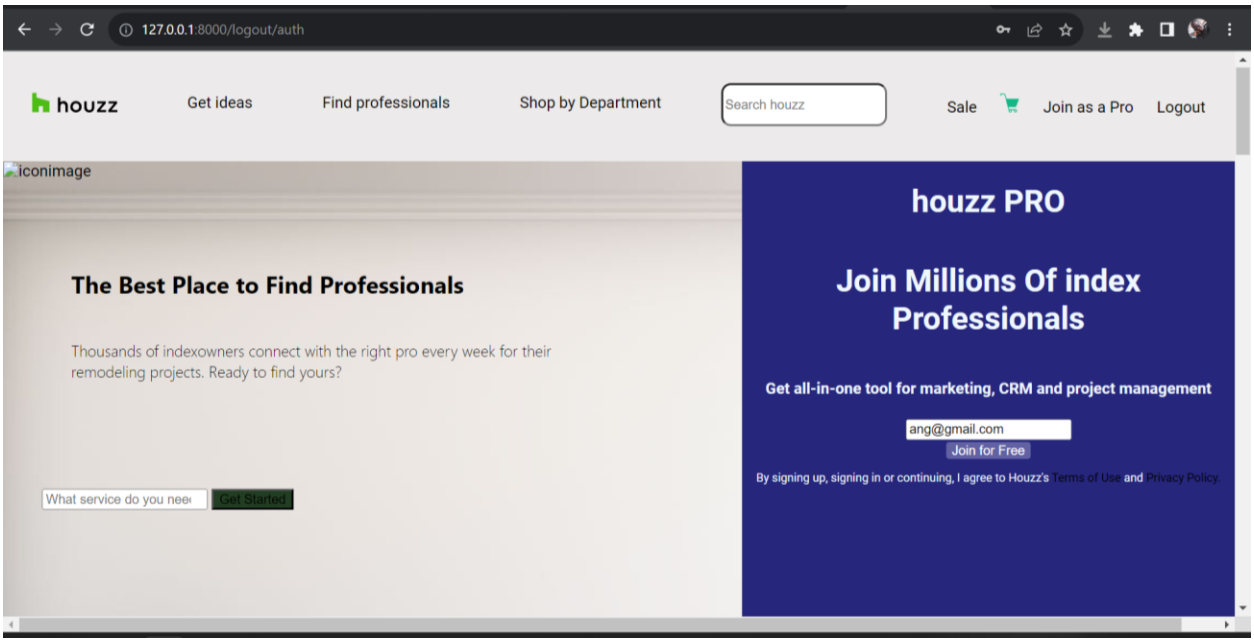
login page

For the user who already as an account, I created a user interface for them to directly login onto their page to be able to access the website's dashboard.



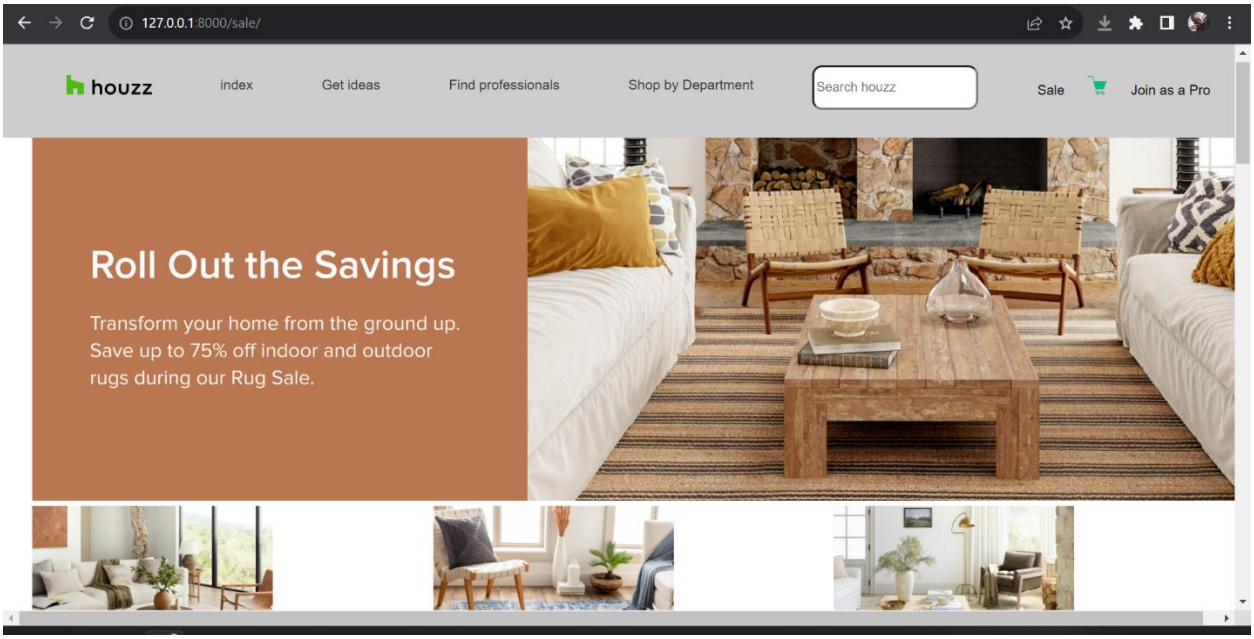
Dashboard

This is the website's dashboard where the user can access the other pages depending on the his/her interest i.e. sale, cart, join as pro or even loggin out of their account.



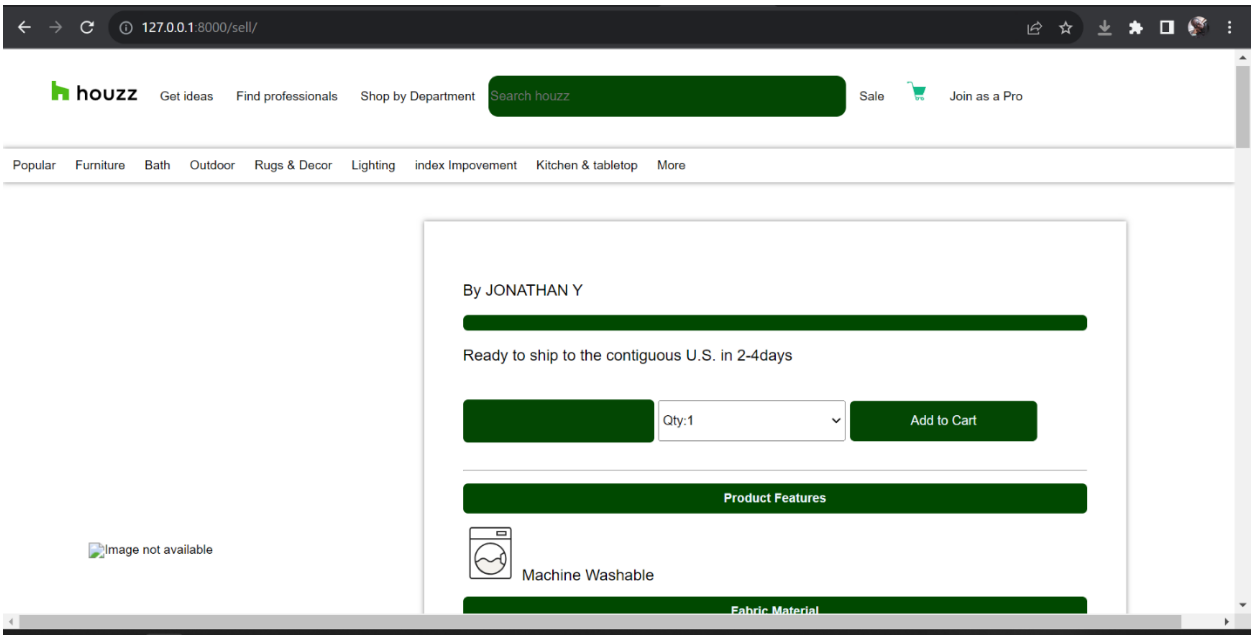
Sale:

Users can browse through a wide range of products such as furniture, decor, lighting, and more, all conveniently organized within the sale page. This section aims to provide users with opportunities to discover and purchase quality products for their homes



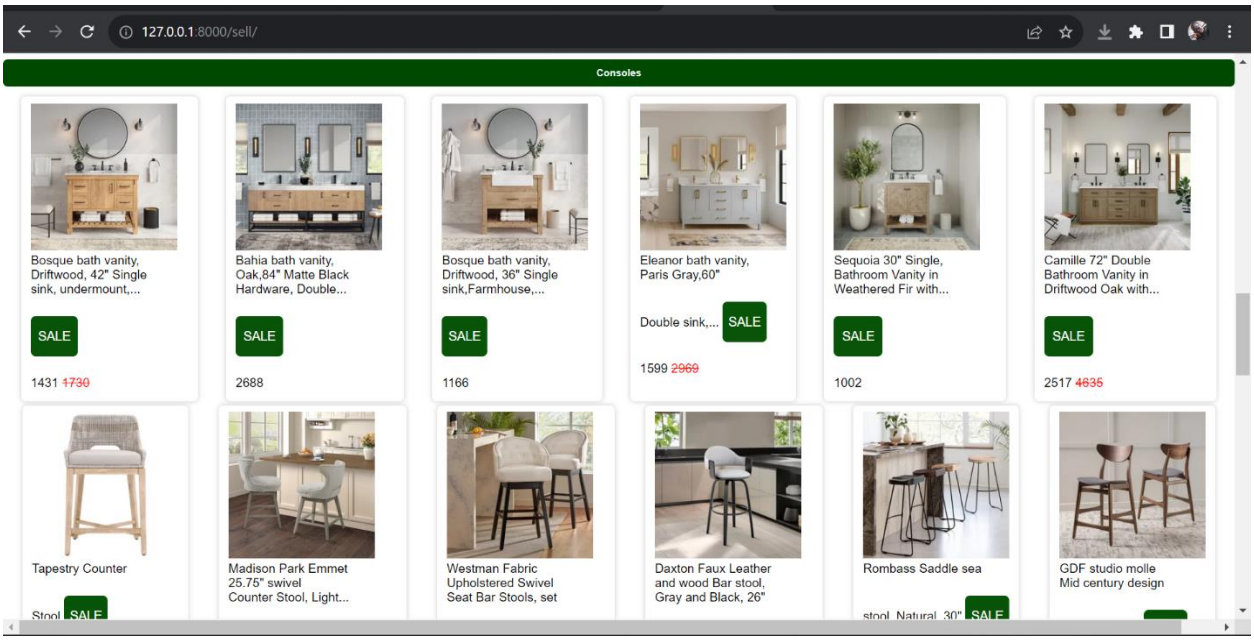
Cart

This page contains a selection of home-related products and decor items available at discounted prices. This section features sales, promotions, and special deals from various retailers and brands in the home and design industry.

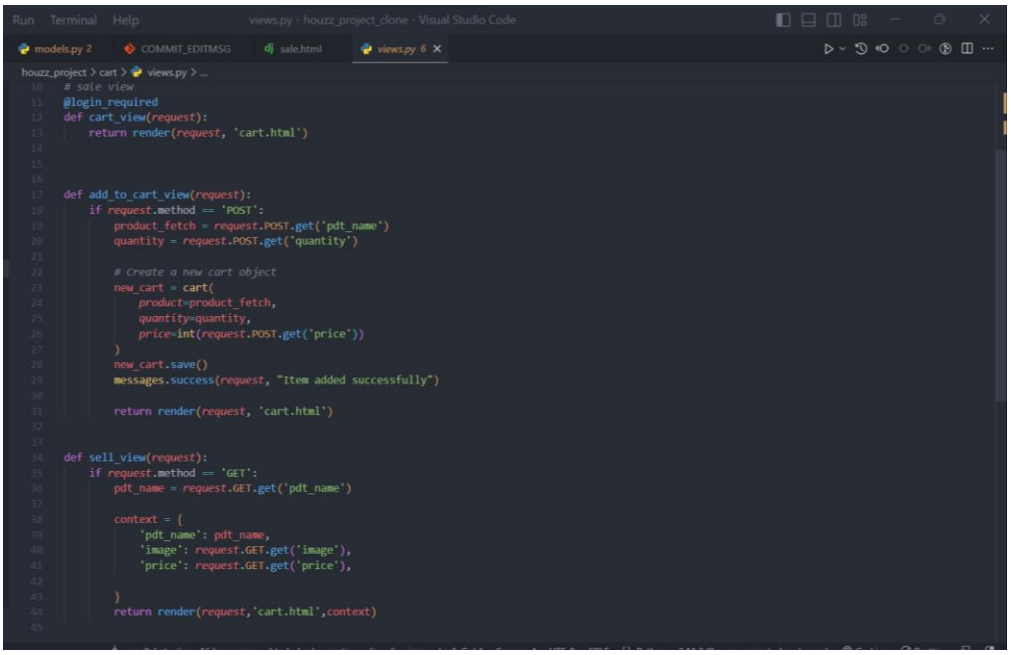


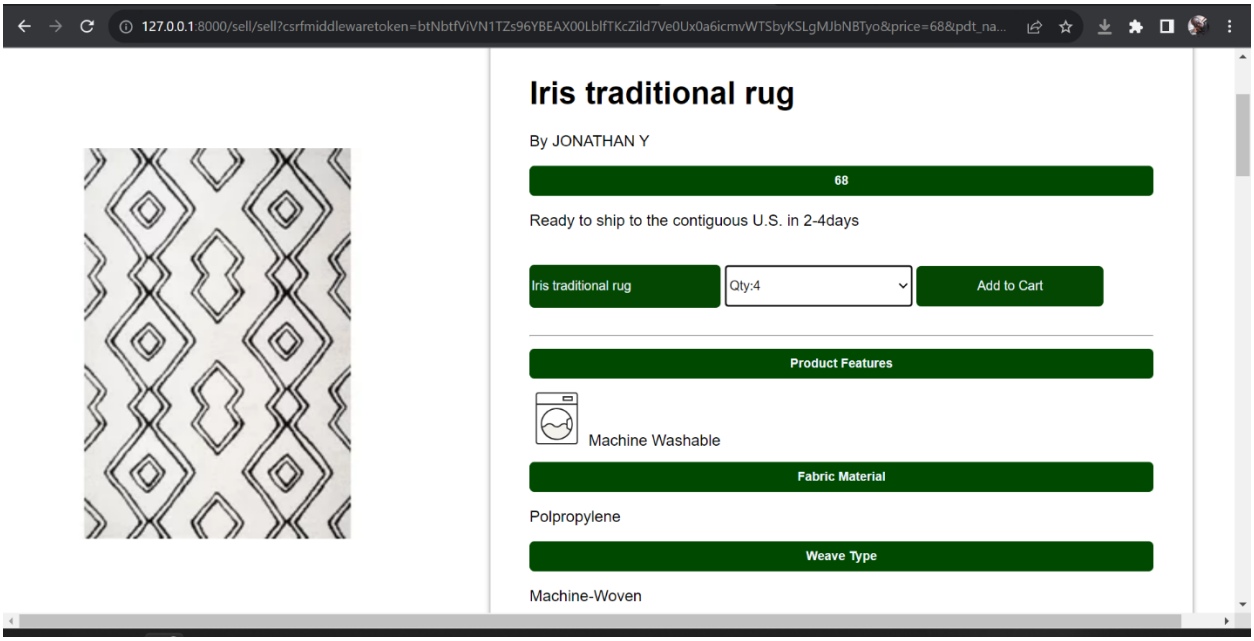
This shows some of the available items that can be selected by the user by clicking on

Sale.



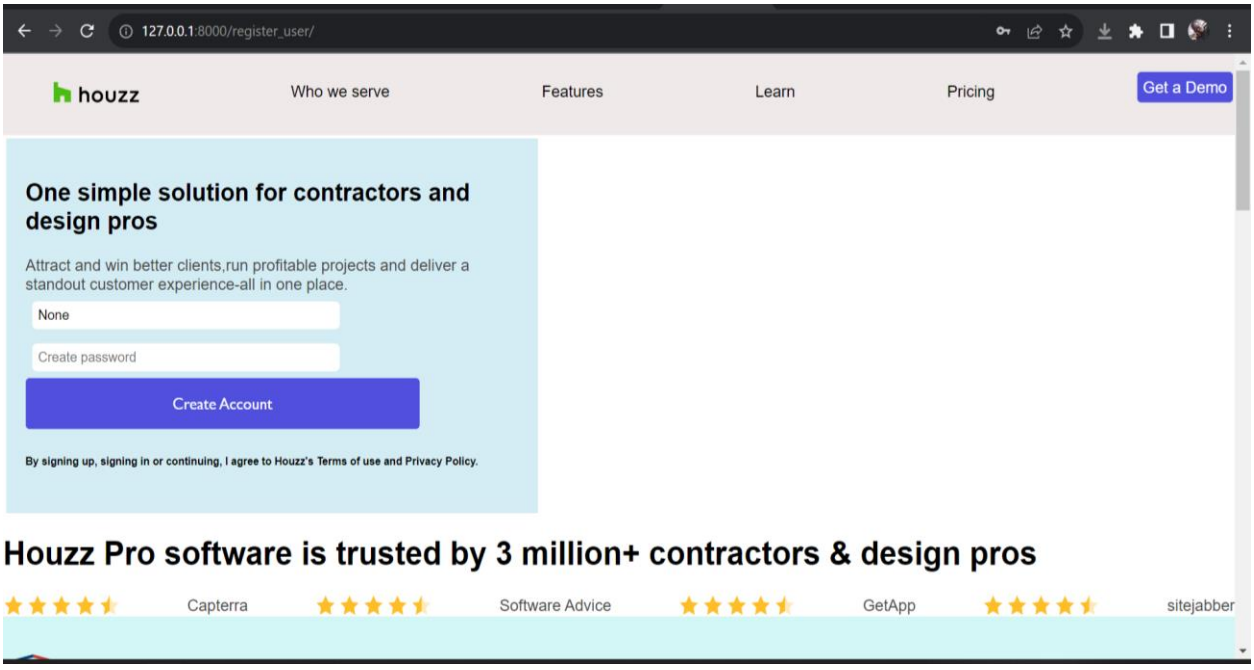
The user can select an item and then click on **Add to cart** for the selected item to be added to their account in the django database.





Join as pro

This is a user interface that is designed for professionals in the home industry who want to showcase their services and connect with potential clients. It serves as a platform for architects, designers, contractors, and other home-related professionals to create profiles, showcase their portfolios, and highlight their expertise. The user can create an account by clicking on **create account.**



Logout

Once the user is done navigating through the website, he/she can logout their account for privacy protection.

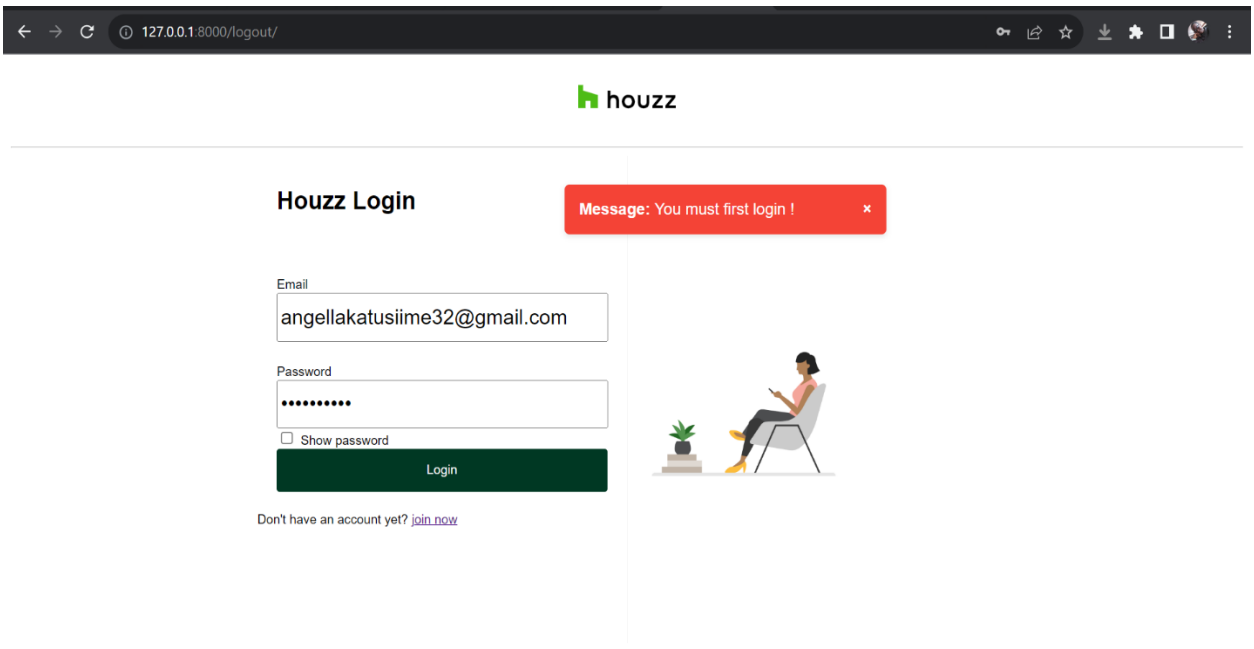
Code snippet

```python
def signin_auth(request):
    if request.method == 'POST':
        email = request.POST.get('email')
        password = request.POST.get('password')
        user_auth_result = authenticate(request,username=email, password=password)
        if user_auth_result is not None:
            login(request, user_auth_result)
            return render(request, 'index.html')
        else:
            messages.error(request, "Invalid login details, check email or password")
            return render(request, 'sign_in.html')

def logout_view(request):
    logout(request)
    return redirect('index')

def index_view(request):
    return reverse('index')
```

Logout result



Challenges:

Legal and Copyright Issues: Copying content, design elements, and features from the website can lead to copyright infringement and legal issues. Houzz's intellectual property and copyrighted content must be respected, and permissions may be required for certain aspects.

User Data and Privacy: Transferring user data and ensuring its security and privacy was a major concern. Establishing robust measures to safeguard user data, while also adhering to data protection regulations, is non-negotiable.

Functionality and Performance: Replicating the intricate features and functionalities of the website is technically challenging. Ensuring the cloned platform performs well, is user-friendly, and also ensuring that remains stable under heavy traffic requires more developed skills.

Design Consistency: Maintaining the visual consistency and user experience of the cloned website was quite difficult. The original website's design evolved over time and replicating it accurately was a big challenge.

Conclusion:
The endeavor of creating a website clone inspired by Houzz is both promising and challenging. While drawing from the success of Houzz can provide a solid foundation, it's crucial to infuse the project with unique value propositions and innovative features.
The technical complexities involved in replicating the multifaceted functionalities of a platform like Houzz are significant. From user-friendly interfaces to intricate databases, from responsive design elements to seamless user interactions, every facet requires meticulous planning and skilled implementation. Ensuring that the design remains consistent, responsive across various devices, and visually appealing is a key challenge that must be met head-on.

Data security and privacy concerns hold paramount importance. Establishing robust measures to safeguard user data, while also adhering to data protection regulations, is non-negotiable. By prioritizing these aspects, trust can be fostered among users, promoting engagement and usage.

Complete project available on:
https://github.com/angellakatusiime/houzz_project_clone