

WEB BASED BUILDING INTERIOR DESIGN SYSTEM

BY

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This report was supplied as part of the requirements for the Bachelor of Science degree in the fields of engineering and computer science.

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APPROVAL

This Project/internship titled "HOME DECOR – DESIGN YOUR BUILDING: Web-based application", submitted by Dipta Bhowmik, ID No: 201-15-3425 to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 26 January 2024.

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We are currently making it official that we worked on the project at hand with the help of **Mr. Mahimul Islam Nadim, Lecturer, CSE Department, Daffodil International University**. It is also our promise that this project or any part of it has not been turned in anywhere else for a degree.

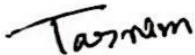
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Mahimul Islam Nadim, a person who teaches at Daffodil International University in Dhaka's Department of CSE, has my sincere thank you and apologize. To finish this job, my supervisor must have deep knowledge of and a strong interest in the "web based" industry. This assignment could not have been finished without her unending patience, academic advise, persistent encouragement, active guidance, helpful feedback, and wise advice, and reading several subpar versions and editing those at every step.

I'd like to express our humble gratitude to **Dr. Sheak Rashed Haider Noori, Professor and Head**, Department of CSE furthermore, I would like to convey my genuine gratitude to the faculty members and staff of Daffodil International University's CSE department for their invaluable aid and cooperation during the entirety of my research project.

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Finally, I would want to convey my heartfelt appreciation to my parents for their unwavering assistance and forbearance.

ABSTRACT

The "Web Based Building Interior Design System" project is a method for minimizing the complexity of building interior design. This project is for creating interior design websites where customers may pick or purchase designs. There are many building interior designers in Bangladesh these days, however they do not have an internet management system. For these reasons, I created a web-based platform with several capabilities for building interior designers. This website will be beneficial to both consumers and owners of interior designers. The websites were extensively tested after implementation using programming languages including Visual Studio, Brackets, and Atom as editors, and Firefox and Google Chrome as testing browsers. The testing process confirmed the successful operation of the websites using numerous techniques.

The "Home Decor - Web-based Platform" strives to transform the civil sector by offering an all-inclusive, safe, and user-friendly solution that meets the unique requirements of interior designer, customers, as well as administrators of systems.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Welcome to Home Decor. Where innovation meets elegance in the realm of interior design. Our passion lies in transforming spaces into captivating environments that seamlessly blend functionality with aesthetics. As the gateway to a world of creative possibilities, our website serves as an inspiration hub for those seeking to elevate their living and working spaces. At Home Décor, we understand that interior design is not just about arranging furniture; it's about curating an experience, a story, and a reflection of your unique style. Whether you're embarking on a residential project, commercial venture, or simply looking for a touch of inspiration, our website is your go-to destination for the latest trends, timeless classics, and expert insights from the world of interior design.

As you explore our website, you'll discover a wealth of resources, from informative articles and design tips to in-depth guides on material selection and layout planning. We believe in empowering our audience with knowledge to make informed decisions and embark on their design journey with confidence.

Welcome to a world of design excellence, where Home Décor becomes your partner in transforming spaces into timeless works of art. Let your journey to exceptional interiors begin here.

1.2 Motivation

The number of interior designers is growing by the day. However, the majority of them lack an online administration system. As a result, I'd want to create a system for interior designers.

People may use this platform to book or browse the building interior design, as well as check availability, pricing, reviews, and send messages. People in our nation are acutely conscious of the passage of time. As a result, we don't always have enough time to meet

with interior designers and ask them questions one by one. Only technology can decrease the complications for consumers and home interior designers. In this situation, realizing think internet platforms are the greatest option for consumers, purchasers, and interior designers, it efficiently reduces the difficulties related to the reservation process. Websites will be handy for users and proprietors since they are the most popular platform in recent times.

1.3 Objectives

- To get comprehensive details of Interior designer.
- To secure a sell or buy design and What are offered by the designer of interior.
- To estimate the costs, please consider checking the available packages.
- To simplify the difficulties of the product purchasing process and running commerce effectively.
- For time and cost savings.
- To review feedback from other customers.

1.4 Expected Outcome

1. The system of building interior design may be managed by the site administrator or interior designer with the aid of this website.
2. Consumers will have the chance to inspect the amenities offered by the proprietors of interior design.
3. You may reach the interior designer by phone or email using the website's contact form.
4. Customers won't need to go in person to see the interior designer.
5. Savings on time, money, and complexity are just a few advantages of this.

1.5 Report Layout

Chapter 1: Introduction

The project's motive has been discussed in this chapter, with objectives, and intended outcome. This chapter's last portion included a description of the report layout.

Chapter 2: Background

This page describes my idea's history, explores similar work by linking this website to others, describes the problem's scale, and talks about the project's inherent difficulties.

Chapter 3: Requirement Specification

Important components like business process modeling, requirement collection and analysis, project use case modeling with descriptions, logical database structure modeling, and specification creation are covered in this part.

Chapter 4: Design Specification

Project designs, including front-end, back-end, interaction, and UX designs, are covered in this chapter along with implementation requirements.

Chapter 5: Testing and Implementation

Implementing databases, front-end designs, interfaces, testing procedures, test results, and a thorough report are the main topics of this chapter.

Chapter 6: Future Scope and Conclusion

This concludes the section discussing the project's conclusion and future objectives.

CHAPTER 2

BACKGROUND

2.1 Introduction

Prior to commencing a development project, it is imperative that I conduct adequate study and investigation on related projects and pre-existing work. This chapter's foundation information is crucial for the successful completion of a project. Information necessary for the completion of this project can be obtained from the prior works of others that are pertinent to my project. Therefore, initially, I must determine whether or not this sort of website has been created. Additionally, I obtain numerous relevant websites through Google. I then concentrate on the constraints that exist in their initiatives or task. I worked to improve their limitation subsequent to identifying it. I was able to remove limitations, make improvements to the website, and create an innovative administration system. Ideas regarding existing features of related projects will not occur to me unless I conduct research on related works. As a consequence, the scope for enhancing extant features and introducing new ones may be extremely limited. Due to these factors, the project's backdrop is crucial to the development of a based undertaking.

2.2 Related Work

The linked websites that provide the URLs of different interior design websites around the country are listed below. However, none of them create interior designs for entire buildings. The majority of them have restricted functionality, including address, photo, and marketing process. However, they failed to furnish any interior-oriented amenities. Several platforms can be utilised to locate in Bangladesh.:

- potteryworld [1]
- Aronghomedecor [2]
- cynor.com [3]

Features: These websites are not connected to any one interior designer; rather, they serve as common places to get equipment for interior design.

- Offers only the interior design equipment.
- Some has limited features.

Problems:

- Third-party media makes up the bulk of these platforms.
- It is not possible to have direct connection with the interior designer's authority.

There's a few native management websites run by real building interior design experts that serve the Bangladeshi population. One such, although with certain restrictions, is Arong Decor[2], a Bangladeshi website for home décor that is shown in Figure 2.1.

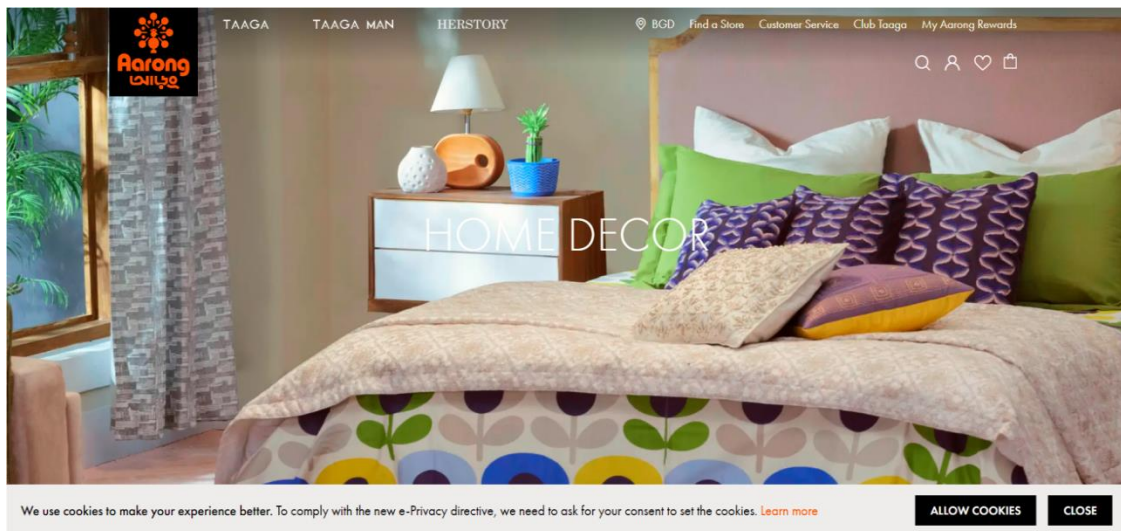


Figure 2.1: Website of Arong home decor

Features:

- May make reservations online.
- Data are accessible.
- A picture collection.
- The opportunity to contact.

Problems:

- Interior package-related elements are absent from the webpage.
- They don't have a communications platform.
- Can't get the information of the designer.

2.3 Comparative Studies

My website contains numerous features. Certain websites exhibit similarities while others diverge in comparison to those mentioned. Furthermore, I designed it with thorough information to make it simple for administrators, users, and interior designers to navigate.

- The interior design can be purchased directly by a client or purchaser via my project. However, there are certain projects in which a client must submit a purchase request for the design. The customer is then contacted by the administrator or authority to confirm this.
- A purchaser or client may examine bundles with prices provided by the interior designer; this feature is exclusive to my project and has not been implemented in any other undertakings. Admin will also have the ability to modify the offers for these bundles.
- One unique element that sets my projects apart from those of other websites is the possibility for clients to rate me after using my interior design services.
- One of the main concerns is security. I have made use of a SQLite 3 database system that is managed by a user administrator.
- A customer can check his order history and when compared to other projects, this is another newly developed feature of my project.

2.4 Scope of the problem

Completing this project has presented me with numerous obstacles. However, I have triumphed over these challenges. Information regarding the interior design industry's acquire and sell policy is required. The selection of a database is an additional critical determination. I have decided to implement SQLite 3 as my database. Using Visual

Studio as the editor, I implemented several programming languages for the development of my projects, including Python, JavaScript, and Django (Python Framework). Markup language was required for the development of this website. Equal to HTML and CSS. I have designed this website utilizing JavaScript library functions like as JQuery. A language for programming was selected since developers are known to find it easy to use. Because the website is designed to be as user-friendly as possible, I really hope that many people will choose to utilize it and make their lives easier as a result.

2.5 Challenges

Here are some of the issues I have faced:

- The SQLite 3 database was an unfamiliar application to me. Due to the fact that this database is required for our endeavor, I was required to acquire a substantial amount of knowledge regarding it.
- To develop a unique look and design elements.
- To the development of an interface that is user-friendly.
- Managing both common users and administrators on a single website.
- Implementing measures to safeguard data.
- Preventing unauthorized users from accessing, modifying, or removing database data.

CHAPTER 3

REQUIREMENT SPECIFICATION

3.1 Business Processing Model

It is an essential instrument for constructing a system or endeavor in the form of a flowchart or model. The Business Process Model provides a structural picture of a process or system by mapping to describe the actual data flow. Before starting a project or system, developers must first establish this model.

Users are able to Buy and sell design by accessing the Website of my system.

Admin can then validate or confirm the user request. Figure 3.1 illustrates the business process model corresponding to the specified process.

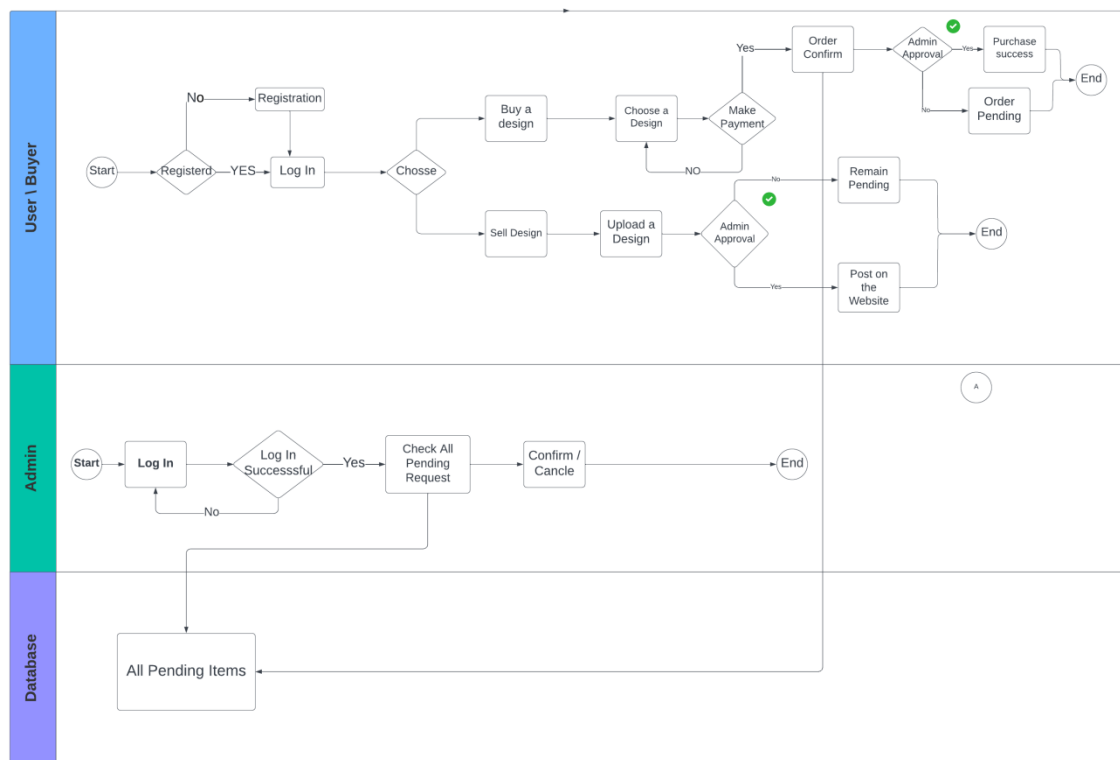


Figure 3.1: Business Process Model for Home Decor

3.2 Requirement Collection & Analysis

The process of Requirement Collection and Analysis for "Home Decor" includes a methodical approach to acquiring and comprehending the requirements of system administrators, designers, and consumers. Below is a concise summary of the method:

1. Determine the key stakeholders of the platform, including organizers, customers, and system administrators. Take cognizance of their obligations and anticipated outcomes.
2. To collect requirements, preferences, areas of concern, and desired features, include designers in surveys, seminars, and interviews.
3. Assess the existing methods for interior design inside the building to identify any deficiencies, obstacles, and possible areas for automation or enhancement.
4. Based on the collected requirements, generate use cases and user stories that accurately depict the specific functionalities and interactions for each user role.
5. Provide a comprehensive overview of the fundamental components necessary for the processes of development, acquisition, marketing, documentation, protection, and other operational needs.
6. Prioritize requirements based on stakeholder input, feasibility, and impact on the platform's key features and user experience.
7. Consolidate all the gathered requirements into a comprehensive document or database that include functional specifications, use cases, user stories, and prioritized features.
8. Conduct review sessions with stakeholders to ensure that the criteria accurately and impartially reflect their requirements. Prior to proceeding with the development phase, it is necessary to seek approval from the designer.

The "Home Decor" is meticulously crafted to meet customer expectations and adhere to industry standards. Through the process of collecting and analyzing requirements, we get a thorough understanding of consumer wants.

3.3 Use Case Modeling and Description

One kind of behavioral UML diagram that is very important for system analysis is the use case diagram. It helps to understand how a system works by defining its roles and interactions. The main goal of the design is to make it easier to define roles and define processes, which makes it an essential component of project development. The graphic provides a thorough overview of the system and identifies both internal and external problems. The use case diagram enhances its value in system analysis and design by giving a visual depiction of roles and system interactions, making it a vital tool for project development.

For this assignment, I generated diagrams of use cases. Here, the users and administrators are the focus of the use case image. The "Home Decor" project's diagrams of use cases is shown in Figure 3.2.

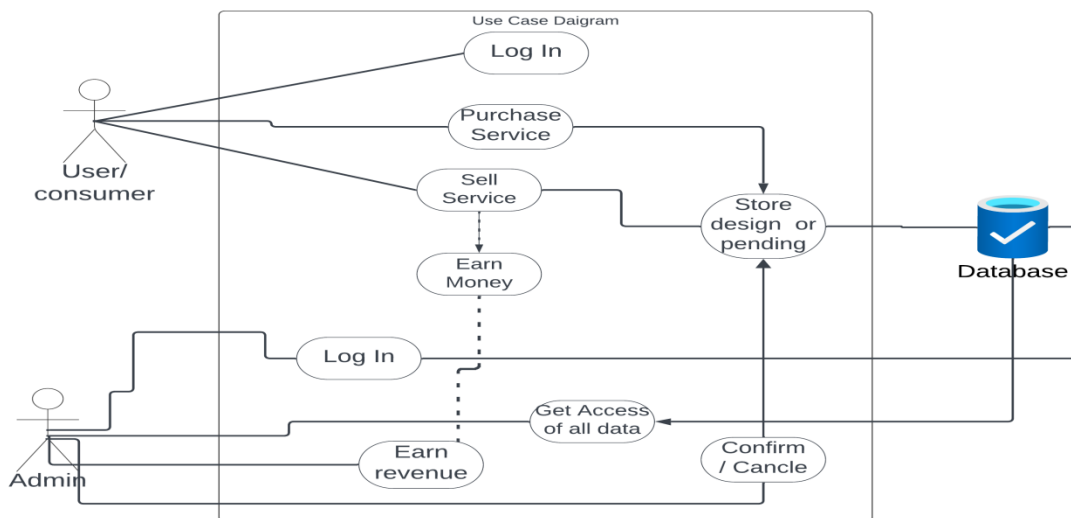


Figure 3.2: Use Case Model for Home Decor

3.4 Flow chart Modeling and Description

Flowchart models use diverse symbols to visually depict the sequential progression of stages, choices, and information transmission in a process, framework, or algorithm. Commonly used in software development, corporate procedures, management of projects, and other fields, it enhances the comprehension, documentation, and presentation of intricate processes.

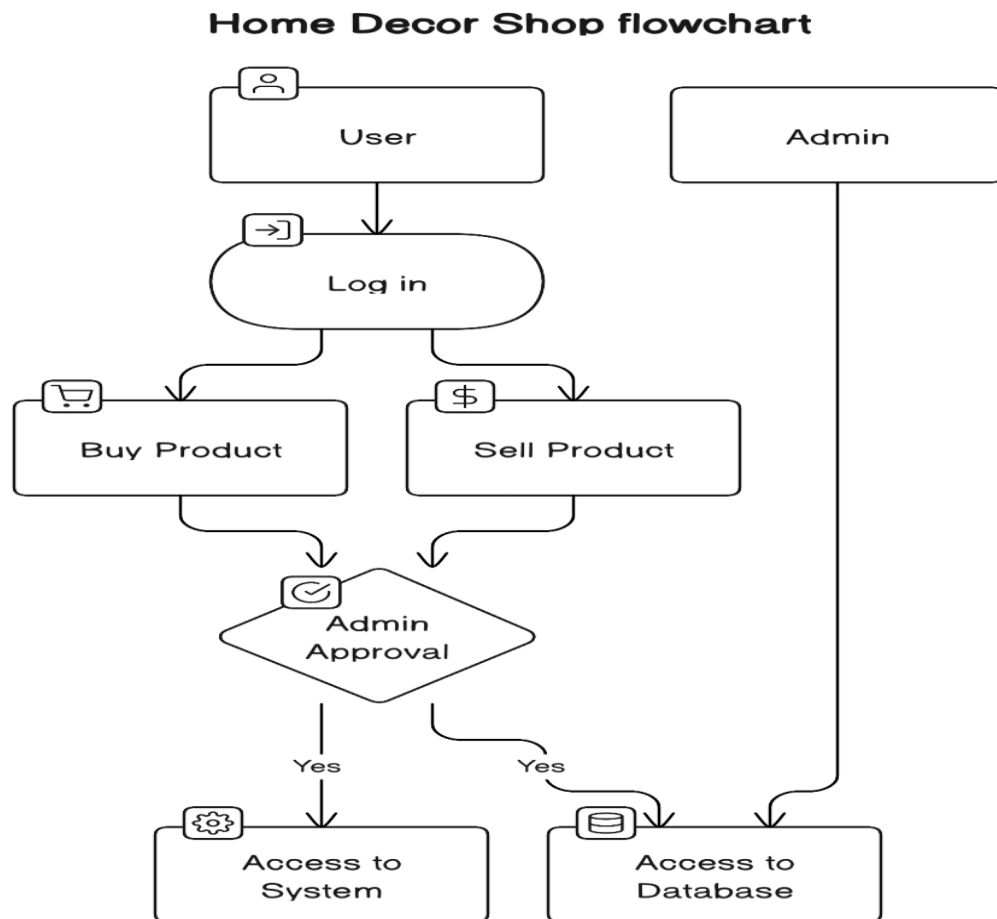


Figure 3.3: Flow Chart Model for Home Decor

3.5 Logical Data Model

"Home Decor- Furnish your dream" has a logical data model with the following entities: users, itineraries, buying, Design, and preferences.

- Admin: This block denotes the administration segment of the web application. Users may use this platform to oversee the website's content, establish new accounts, and configure permissions.
- Content Management: This block denotes the system responsible for overseeing and controlling the information and materials available on the website. This include tasks such as incorporating, modifying, and removing pages and blog entries.
- User Management: This block denotes the system responsible for overseeing user accounts. These tasks include activities such as establishing new accounts, changing passwords, and removing accounts.
- Registered User: This section delineates the various categories of users who have completed the registration process on the website.
- Visitor: This block pertains to those who are accessing the website without being authenticated or signed in.

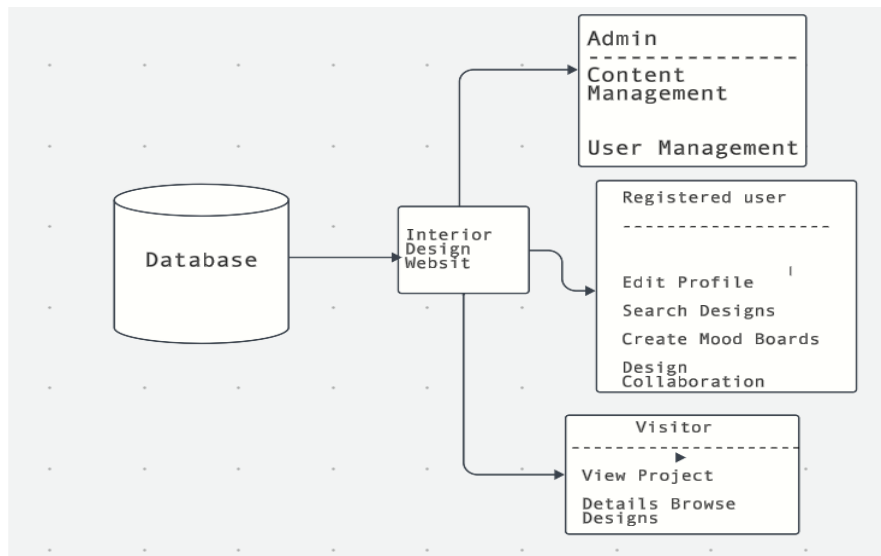


Figure 3.4: Logical diagram of the system

3.6 Design Requirements

- There are two users in this system: admin users and consumer's.
- There is a sign-up or registration option for general users.
- Admin users must register or choose to join up as well.
- Users may display their profile details after logging in.
- A customer user may see the interior design from the next design choice after logging in.
- The contact page allows a client to rate or recommend the service.
- A customer user will have access to interior package prices and preview images of the designs.
- The pricing, interior design image, and design packages may all be edited by an authorized administrator.
- A purchase order request may be canceled, selling information edited, or booking requests confirmed by an admin.
- The database's history and design information may be edited or removed by an administrator.
- An administrator may purchase a design by simply selecting the interior design that is offered by the design owner.
- The administrator may see the purchasing list or pending and confirmed bookings from the database.
- The administrator has the ability to add images to the gallery, remove images from the gallery, and create pictures.
- The administrator may amend or update the purchasing or selling data.

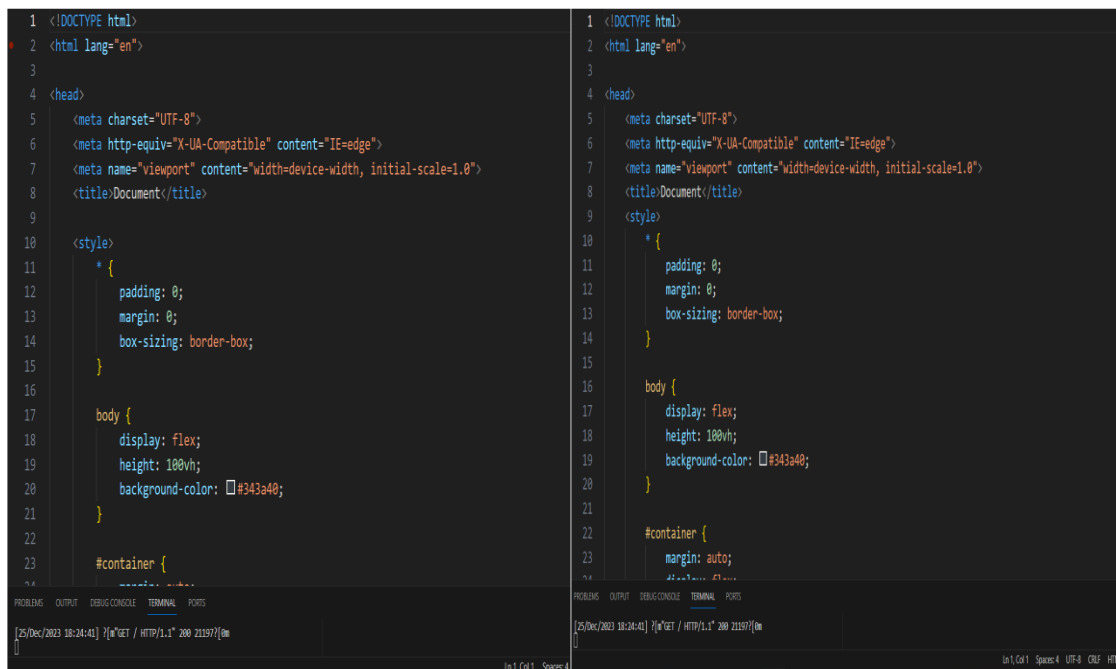
From the beginning of the project design process, my goal was to create a project that is both straightforward and friendly to all users. Optimizing efficiency is crucial. I ensure that I retain this information in my memory to ensure optimal and seamless performance of my project on websites.

CHAPTER 4

DESIGN SPECIFICATION

4.1 Design (Front-End)

Each program's front-end design is important since it serves as the user interface that allows users to interact with the application. We have made an effort to design a user-friendly and intuitive system. Python and HTML were used in the development of the user interface. The design of each individual page is necessary due to the presence of several pages in our program. Let us analyze other websites that display the implementation or code.



```
1 <!DOCTYPE html>
2 <html lang="en">
3
4 <head>
5   <meta charset="UTF-8">
6   <meta http-equiv="X-UA-Compatible" content="IE=edge">
7   <meta name="viewport" content="width=device-width, initial-scale=1.0">
8   <title>Document</title>
9
10  <style>
11    * {
12      padding: 0;
13      margin: 0;
14      box-sizing: border-box;
15    }
16
17    body {
18      display: flex;
19      height: 100vh;
20      background-color: #343a40;
21    }
22
23    #container {
24
25  
```

```
1 <!DOCTYPE html>
2 <html lang="en">
3
4 <head>
5   <meta charset="UTF-8">
6   <meta http-equiv="X-UA-Compatible" content="IE=edge">
7   <meta name="viewport" content="width=device-width, initial-scale=1.0">
8   <title>Document</title>
9   <style>
10     * {
11       padding: 0;
12       margin: 0;
13       box-sizing: border-box;
14     }
15
16     body {
17       display: flex;
18       height: 100vh;
19       background-color: #343a40;
20     }
21
22     #container {
23       margin: auto;
24     }
25  
```

Figure 4.1: User Registration Page Code

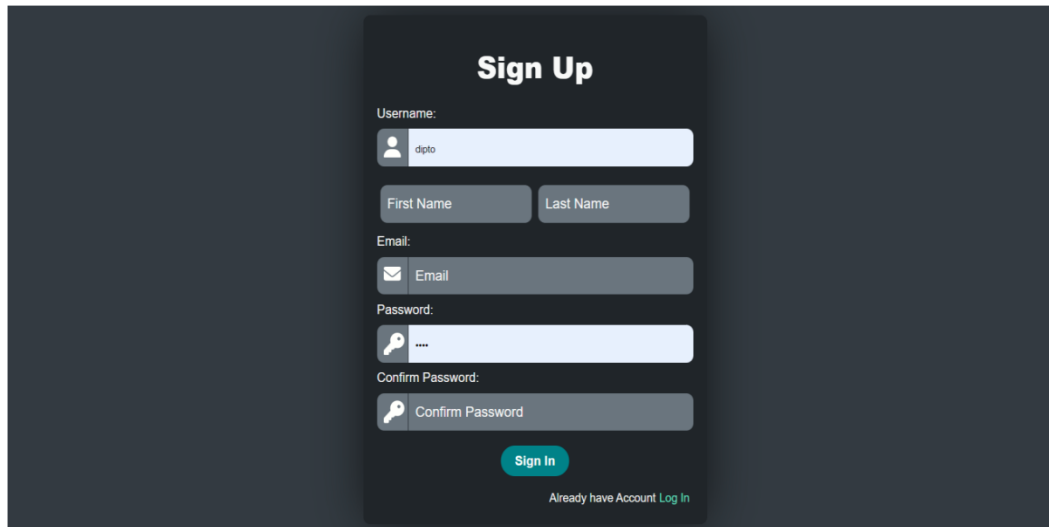


Figure 4.1: User Registration Page Design.

The user registration page is seen in Figure 4.1. The design is implemented using HTML and CSS code.

However, to keep this report sophisticated and succinct, I didn't give all of the code for HTML and CSS. Additionally, I use python for the design of this webpage in order to execute various operations.

```

1 (% load static %)
2 <!DOCTYPE html>
3 <html>
4
5 <head>
6     <!-- Basic -->
7     <meta charset="utf-8" />
8     <meta http-equiv="X-UA-Compatible" content="IE=edge" />
9     <!-- Mobile Metas -->
10    <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no" />
11    <!-- Site Metas -->
12    <link rel="icon" href="{% static 'images/fevicon.png' %}" type="image/gif" />
13    <meta name="keywords" content="" />
14    <meta name="description" content="" />
15    <meta name="author" content="" />
16
17    <title>Home Decor</title>
18
19    <!-- bootstrap core css -->
20    <link rel="stylesheet" type="text/css" href="{% static 'css/bootstrap.css' %}" />
21
22    <!-- fonts style -->
23
24    <!-- fonts style -->
25    <link href="https://fonts.googleapis.com/css?family=Poppins:400,600,700&display=swap" rel="stylesheet" />
26
27    <!-- font awesome style -->
28    <link href="{% static 'css/font-awesome.min.css' %}" rel="stylesheet" />
29
30    <!-- Custom styles for this template -->
31    <link href="{% static 'css/style.css' %}" rel="stylesheet" />
32
33    <!-- responsive style -->
34    <link href="{% static 'css/responsive.css' %}" rel="stylesheet" />
35
36    <style>
37        .submit {
38            background-color: #ff8964;
39            border: none;
40            border-radius: 7px;
41            width: 199px;
42            height: 29px;
43            color: white;
44        }
45
46        .submit:hover {
47            background-color: #f6bb7b;
48        }
49    </style>

```

Figure 4.2: Code of Purchasing

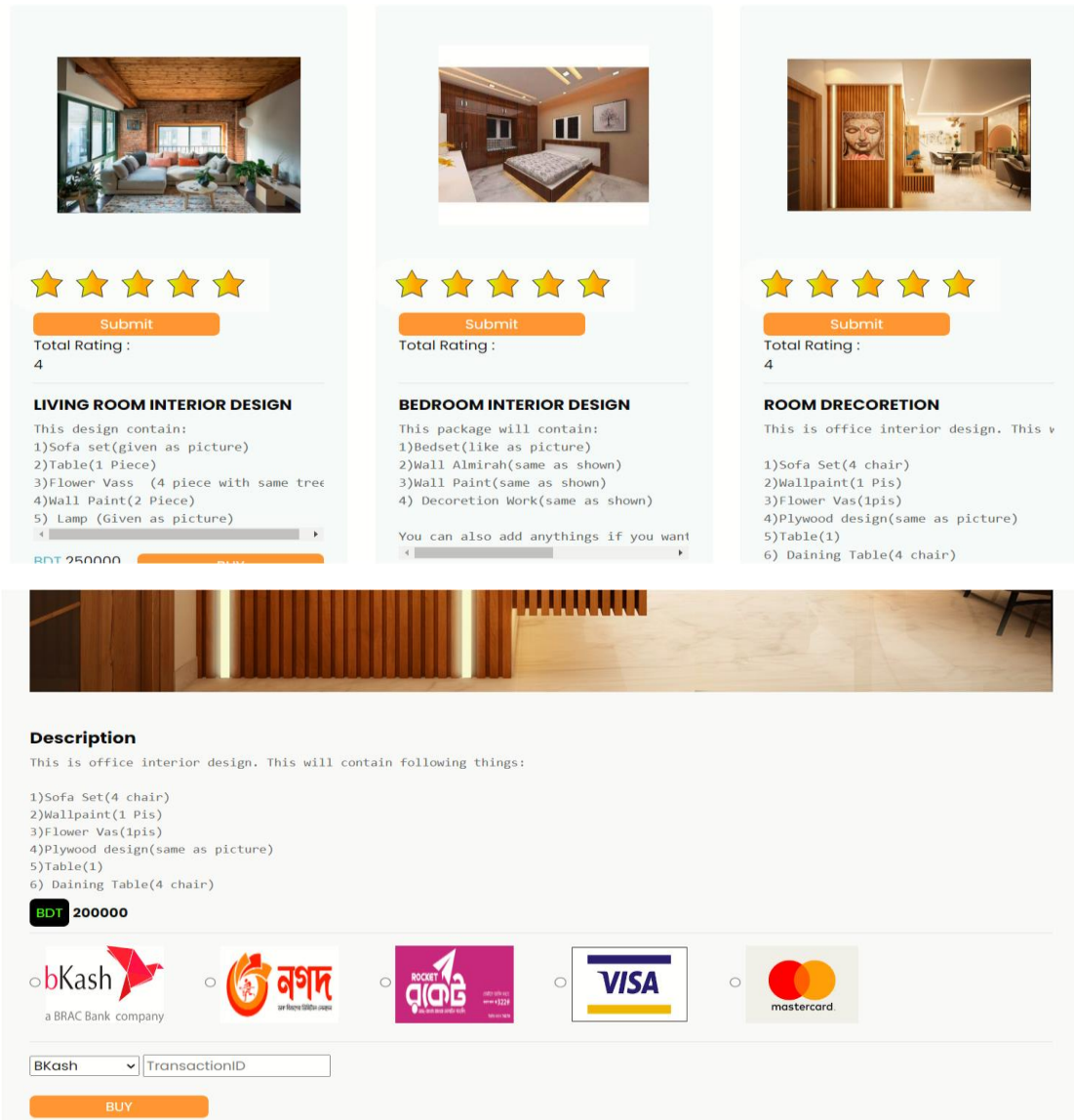


Figure 4.2: Design Buying from Home Decor

This is the layout for the interior design that may be bought. I've included a portion of code for HTML and CSS in Figure 4.2.

4.2 Back-End Design

The back-end component of this project has been responsible for implementing all the logical aspects. All the database-related tasks, such as establishing a database connection, utilizing the database, and maintaining the database, are performed in the back-end portion of the system. For the back-end development of my project, I utilized the Django programming language.

To handle back-end part, I used the SQLite 3 local host database over this particular build. The SQLite 3 local host platform offers a user verification method.

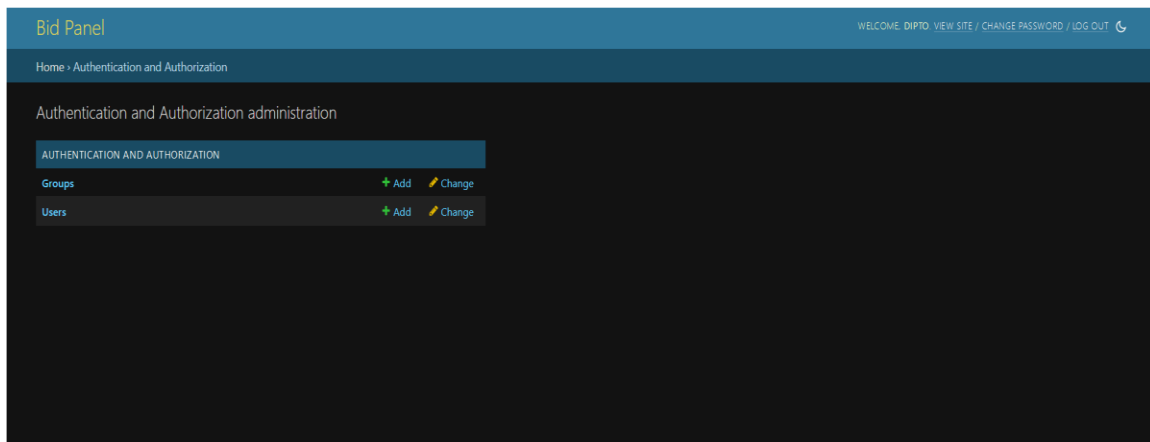


Figure 4.3: Database Front Page

Figure 4.4 represents the primary interface of the database. Below are the group and user tables of the database. The user database contains a variety of tables, including contract, design, order, rating, and review.

An administrator has the ability to include additional functionalities and create new tables for the authentication page of the database. An administrator has the ability to delete fields or attributes from this location.

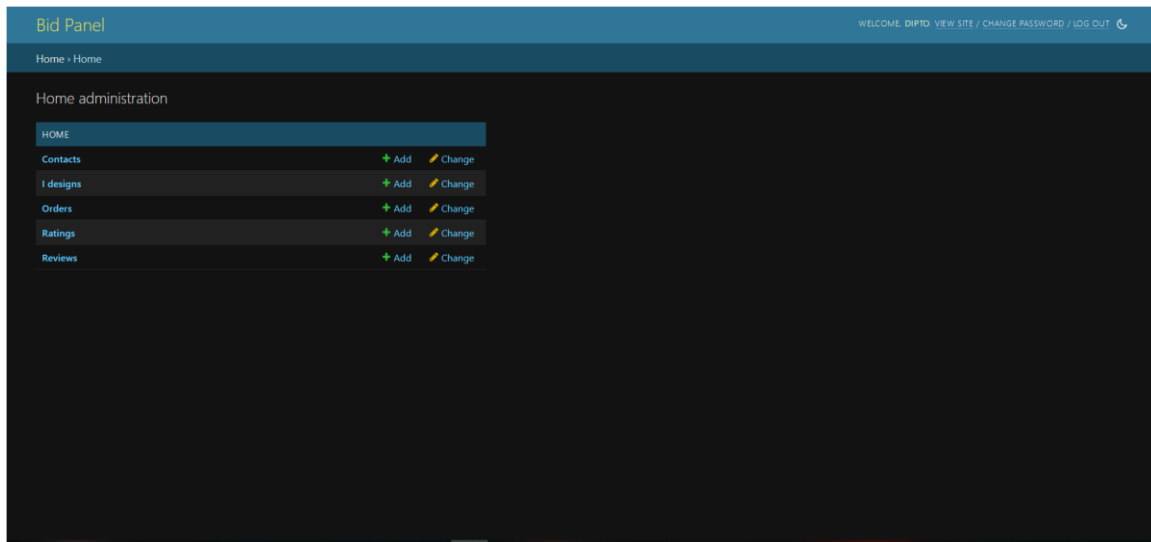


Figure 4.4: User Page

This Figure 4.4; is database of User page. This database page is connected to Django (jangoFrame Work). Each database consists of tables that are created and connected. Django (Django Work Frame).

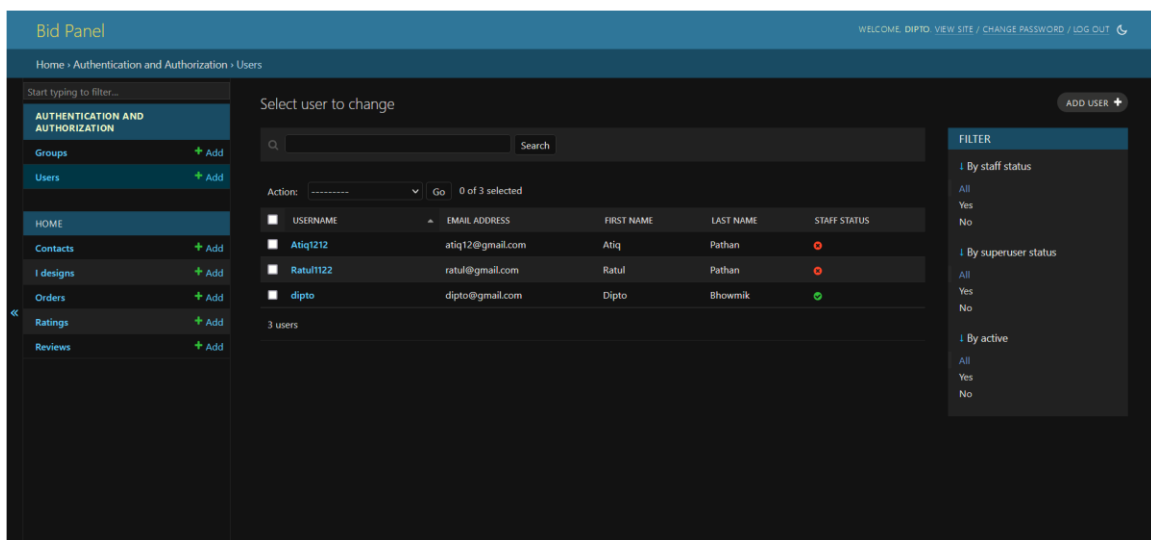


Figure 4.5: Storage of User Page

All user and administrator accounts are stored in our database. This database stores their address, photo, secure password, and profile.

4.3 Interaction Design and UX

User Home Page Design:

- Interior design (On the site, designers provide interior designs, which users may examine along with costs, design photos, and comprehensive explanations. For prospective customers, this functionality improves decision-making and openness).
- Buying (To finish the purchasing procedure, fill out the purchase form here).
- Order info. (Order Information is available here).
- Message (Email may be used by users to transmit messages).
- Contact Us (User can send message to admin through contact us).
- Registration (Enrollment for the designer and user).
- Account creation (page registration and account creation).
- Sign In, Sign Up.
- A Menu Bar (HOME, About, Contact Us, Profile).

Admin Home Page Design:

- Log in (from the sign-in form, the admin may log in).
- The home page for administrators (Authentication and Authorization).
- Home (Contacts, I designs, Orders, Ratings, Reviews).
- Pending Design Request (Cancel, Confirm, details show).
- Confirmed order status (Display order, Can change all access).
- Add a photo (Admin can upload Picture to display in design section).
- Ellipse Image (The administrator can remove photos from design section).
- Message Reply (Admin has the ability to see user messages, respond to them, and remove message history).
- Idea List (Admin may exchange images, information, and alter ideas).
- Packages List (Packages List, Price, Image, Content, Admin may alter. Admin may also add, remove, edit).
- Log off (from the sign-out form).

UX

The code name for user experience is UX. I've made an effort to create a user-friendly website. I've tried a variety of browsers to access this website. Although some individuals have utilized this project, their reviews have been good. Everything seems to be going well for me. Still, none of me presently possess sufficient data on user interface since I haven't made this website publicly accessible.

4.4 Implementation Requirements

The following technical, operational, and developmental elements are included in the implementation requirements for "Home Decor – Furnish your Dream"

☐ **Front End Technologies**

- ☐ HTML
- ☐ CSS
- ☐ CSS
- ☐ PowerShell
- ☐ Bootstrap

☐ **Back End Technologies**

- ☐ SQLite 3
- ☐ Python
- ☐ Django

☐ **Tools**

- ☐ Web Browser
- ☐ Visual Studio Code (*IDE*)

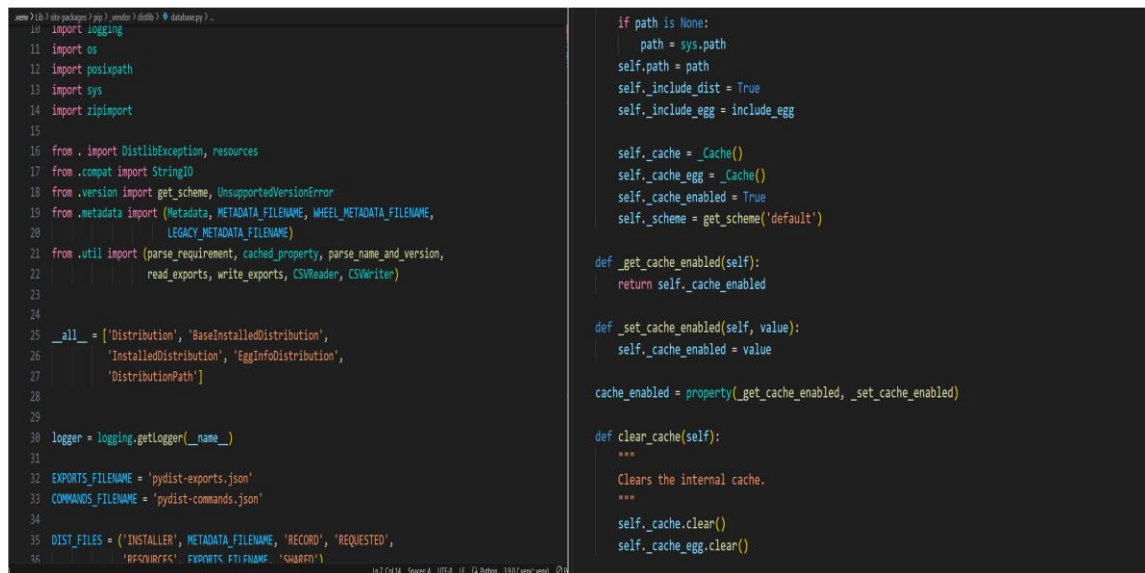
CHAPTER 5

IMPLEMENTATION AND TESTING

5.1 Implementation of Database

Every project using management systems must have a storage. Our database has to include a variety of data kinds. We save and retrieve data from databases based on our requirements. I still need a database even though I was developing a web application. Server is the name of the database created using SQLite 3. If I utilize SQLite 3, I won't need to bother about hosting or the server.

I started by following the directions on the Django website (an online server) to connect my project to Django. In the SQLite 3 database, we must set up a separate database. Next, we must link it to the Python code.



```
10 import logging
11 import os
12 import posixpath
13 import sys
14 import zipfile
15
16 from . import DistlibException, resources
17 from .compat import StringIO
18 from .version import get_scheme, UnsupportedVersionError
19 from .metadata import (Metadata, METADATA_FILENAME, WHEEL_METADATA_FILENAME,
20                       LEGACY_METADATA_FILENAME)
21 from .util import (parse_requirement, cached_property, parse_name_and_version,
22                  read_exports, write_exports, CSVReader, CSVWriter)
23
24
25 _all_ = ['Distribution', 'BaseInstalledDistribution',
26         'InstalledDistribution', 'EggInfoDistribution',
27         'DistributionPath']
28
29
30 logger = logging.getLogger(__name__)
31
32 EXPORTS_FILENAME = 'pydist-exports.json'
33 COMMANDS_FILENAME = 'pydist-commands.json'
34
35 DIST_FILES = ('INSTALLER', METADATA_FILENAME, 'RECORD', 'REQUESTED',
36              'REQUESTED', 'REQUESTED', 'REQUESTED')
37
38 if path is None:
39     path = sys.path
40 self.path = path
41 self.include_dist = True
42 self.include_egg = include_egg
43
44 self._cache = _Cache()
45 self._cache_egg = _Cache()
46 self._cache_enabled = True
47 self._scheme = get_scheme('default')
48
49 def _get_cache_enabled(self):
50     return self._cache_enabled
51
52 def _set_cache_enabled(self, value):
53     self._cache_enabled = value
54
55 cache_enabled = property(_get_cache_enabled, _set_cache_enabled)
56
57 def clear_cache(self):
58     """
59     Clears the internal cache.
60     """
61     self._cache.clear()
62     self._cache_egg.clear()
```

Figure 5.1: Database Connection (SQLite 3) Code

The Django code that connects to the database and creates storage for my database authentication is shown in Figure 5.1. Creating a table in a database and connecting using Python code are helpful.

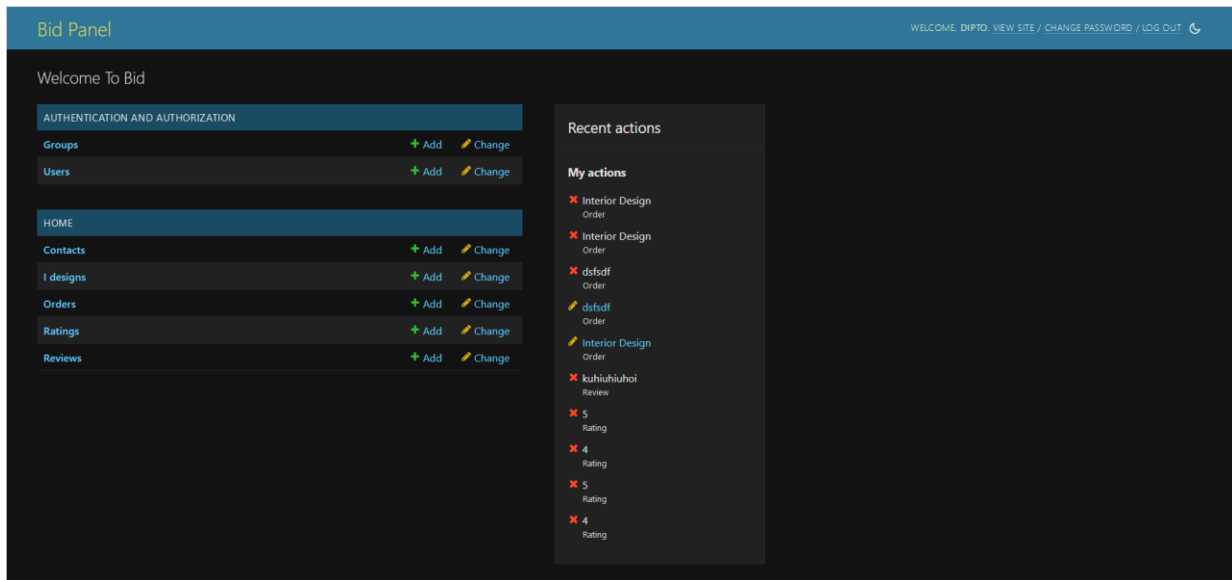


Figure 5.2: SQLite 3 Database

This is the Database page (Figure 5.2). Such as User, Group, Contacts, I Design, order, Rating, Review, and so on. New features and tables may be added by an administrator to this database's login page. A manager may also delete any features or tables from this area.

5.2 Implementation of Front-End Design

If I'm going to create a web application, I have to make sure that it has an intuitive user interface. If it is difficult to grasp and comprehend, people will lose interest. I keep this procedure in mind when I work to create a user interface that is appealing to clients. In this project, you will find two different kinds of modules. A user module and an admin module are available.

For the simple reason that no one will be interested in using it if it is too complicated to use. We put a lot of effort into creating a visually appealing user interface.

User Interface and Admin Interface UI is given below Figure.

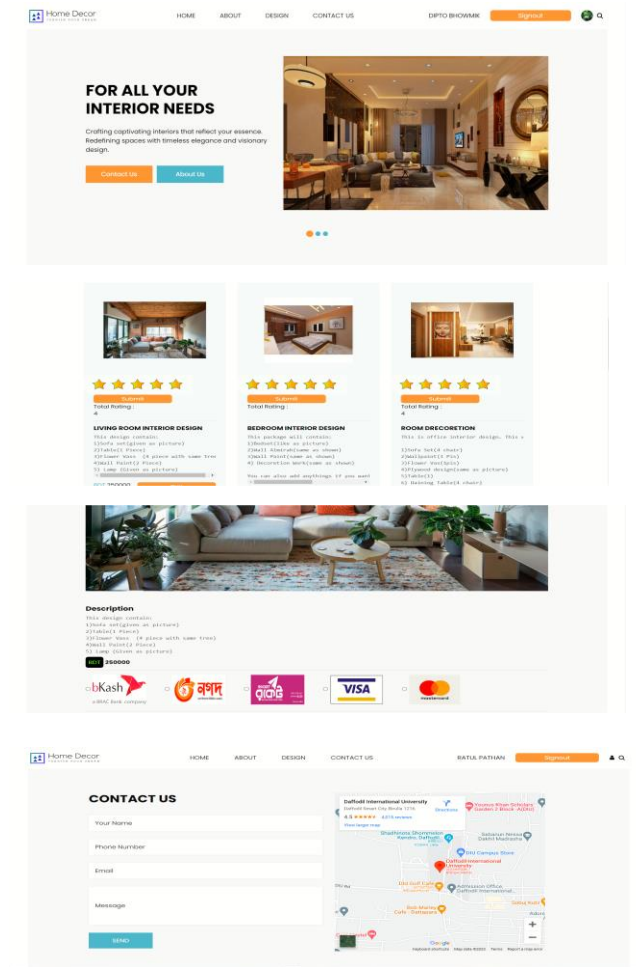


Figure 5.3: Home Page of User

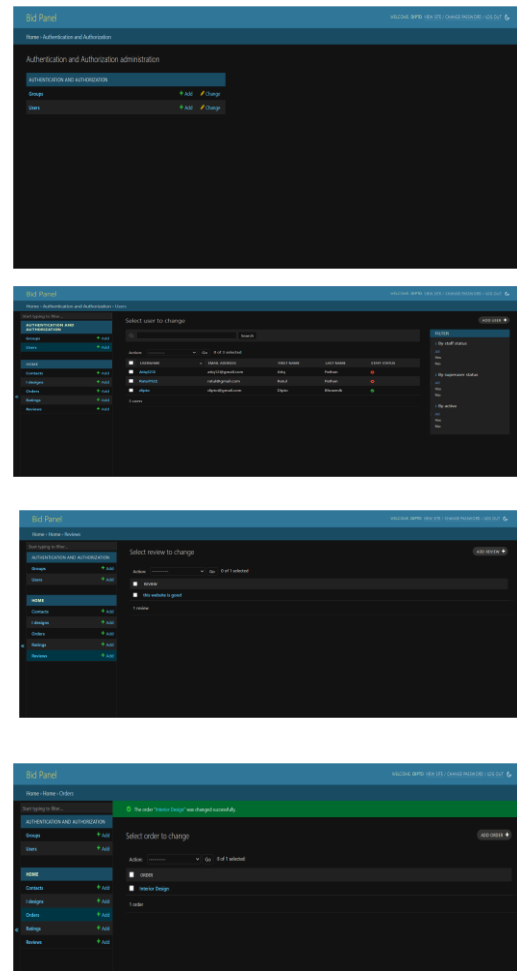
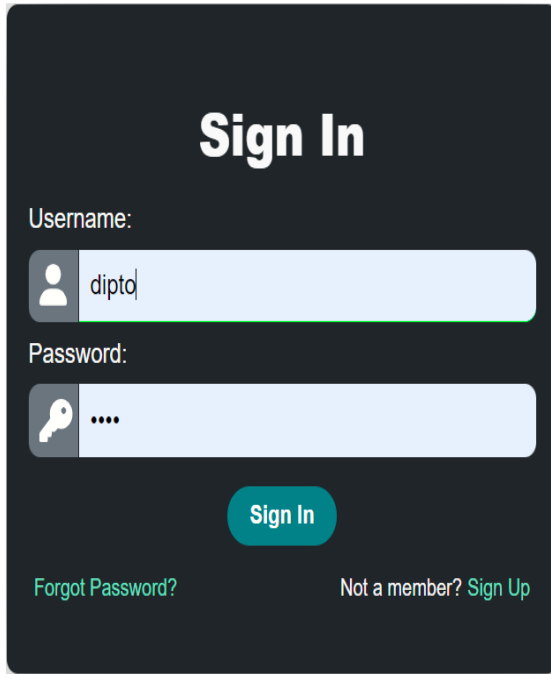


Figure 5.4: Home Page of Admin

The project's two shown of home page differently in Figures 5.4 and 5.3. I have developed a lot of features for the consumers in these two modules. I'll talk about the functionality for customers and users first, then the admin features.

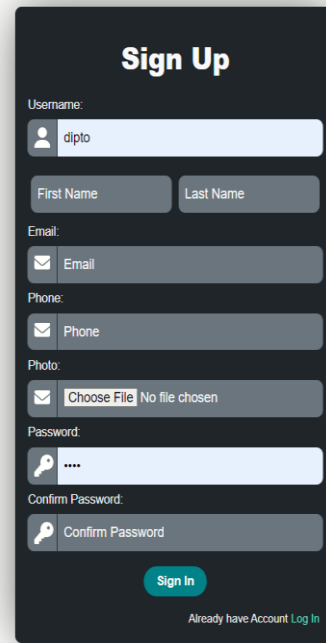
5.2.1 User Module

The User Module has several functionalities, all of which are not depicted in Figure 5.3. So I've shown you some more aspects of this section.



The Sign In form is displayed on a dark background. It features a large 'Sign In' title at the top. Below the title, there are two input fields: 'Username:' with a user icon and 'Password:' with a key icon. The username field contains the text 'dipto'. Below the password field, there is a 'Sign In' button. At the bottom, there are two links: 'Forgot Password?' and 'Not a member? Sign Up'.

Figure 5.5: Log In (User)



The Sign Up form is displayed on a dark background. It features a large 'Sign Up' title at the top. Below the title, there are several input fields: 'Username:' with a user icon, 'First Name' and 'Last Name' (split fields), 'Email:' with an email icon, 'Phone:' with a phone icon, 'Photo:' with a file upload button labeled 'Choose File' and 'No file chosen', 'Password:' with a key icon, and 'Confirm Password:' with a key icon. The username field contains the text 'dipto'. Below the password field, there is a 'Sign In' button. At the bottom, there is a link: 'Already have Account Log In'.

Figure 5.6: Registration (User)

The screenshot shows a web application interface for user management. The top navigation bar includes 'Bid Panel' and links for 'WELCOME, DIPTO', 'VIEW SITE', 'CHANGE PASSWORD', and 'LOG OUT'. The breadcrumb trail indicates the current location: 'Home > Authentication and Authorization > Users > Atiq1212'.

On the left, a sidebar menu lists various sections: 'AUTHENTICATION AND AUTHORIZATION' (with sub-items 'Groups' and 'Users'), 'HOME', 'Contacts', 'I designs', 'Orders', 'Ratings', and 'Reviews'. Each item has an 'Add' button.

The main content area is titled 'Change user' and displays details for the user 'Atiq1212'. It includes a 'HISTORY' button. The 'Username' field is 'Atiq1212'. The 'Password' field shows a hashed password: 'algorithm: pbkdf2_sha256 iterations: 600000 salt: KdN1llM***** hash: 0uY6kz*****'. A note states: 'Raw passwords are not stored, so there is no way to see this user's password, but you can change the password using this form.'

The 'Personal info' section contains:

- First name: Atiq
- Last name: Pathan
- Email address: atiq12@gmail.com

The 'Permissions' section includes:

- ☒ Active: Designates whether this user should be treated as active. Unselect this instead of deleting accounts.
- ☐ Staff status: Designates whether the user can log into this admin site.

Figure 5.7: Because of Log In

A customer can sign up on this site by supplying all of the required information. A user may access this system by logging in using a working email address and password. Users who enter incorrect email addresses and passwords will not be able to access websites and log in. Additionally, a window will display an alert warning message.

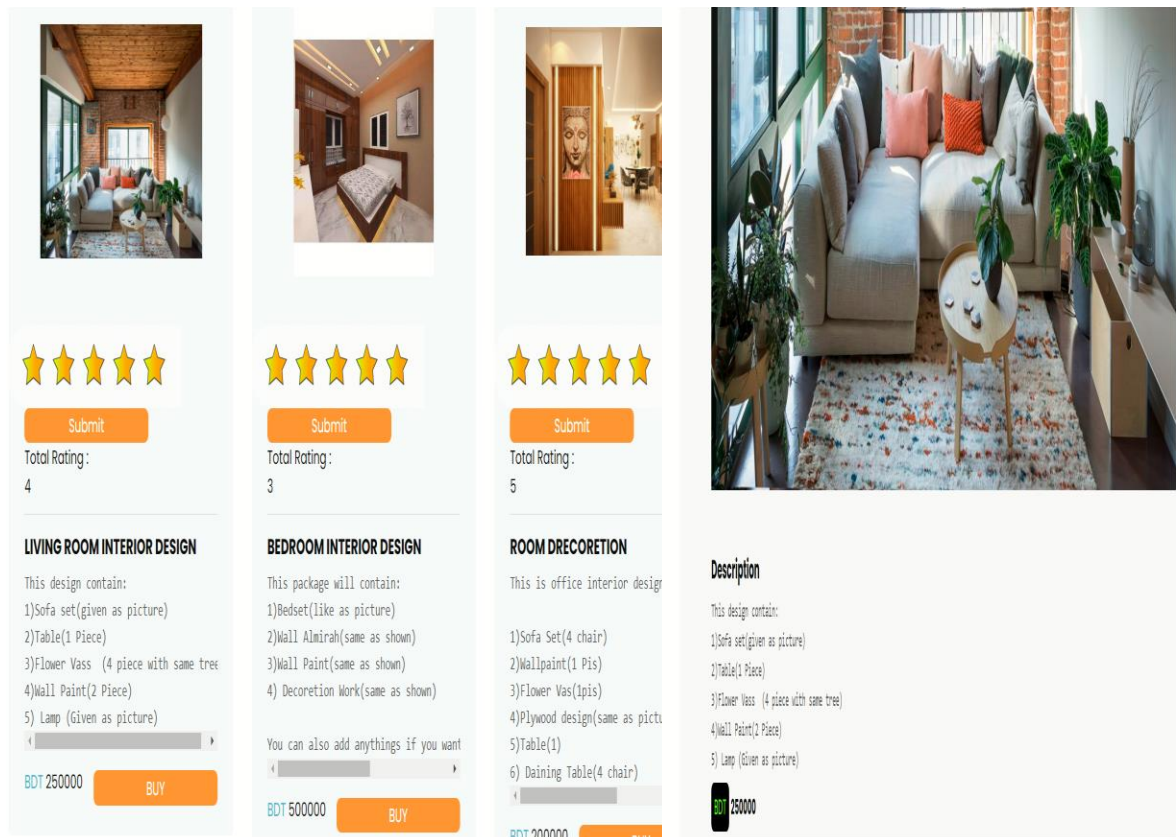


Figure 5.8: Gallery






Figure 5.9: Interior package

Figure 5.8 displays every kind of image from the project's gallery and service section. which photos have been uploaded by this website's administrator or user.

Figure 5.9 displays a variety of interior designs that have been contributed by designers or customers, together with costs, design images, and thorough explanations. The website allows administrators, designers, or users to upload designs, in contrast to the single package that is shown. This gives customers a variety of options to choose from, depending on their needs and budgets.

This package will contain: 1) Bedset (like as picture) 2) Wall Almirah (same as shown) 3) Wall Paint (same as shown) 4) Decoration Work (same as shown)
 You can also add anything if you want. Feel free to contract with me.

BDT 500000

BKash

TransactionID

BUY

Please Write Review

Submit

Figure 5.10: Buying Info part

The whole buying information procedure was shown in Figure 5.10. After choosing the interior design user or consumer will be able to buy this design, with the help of the control panel.

When admin approves the buying request then user will be able to contract with the interior designer and can furnish their dream design by the support of that designer.

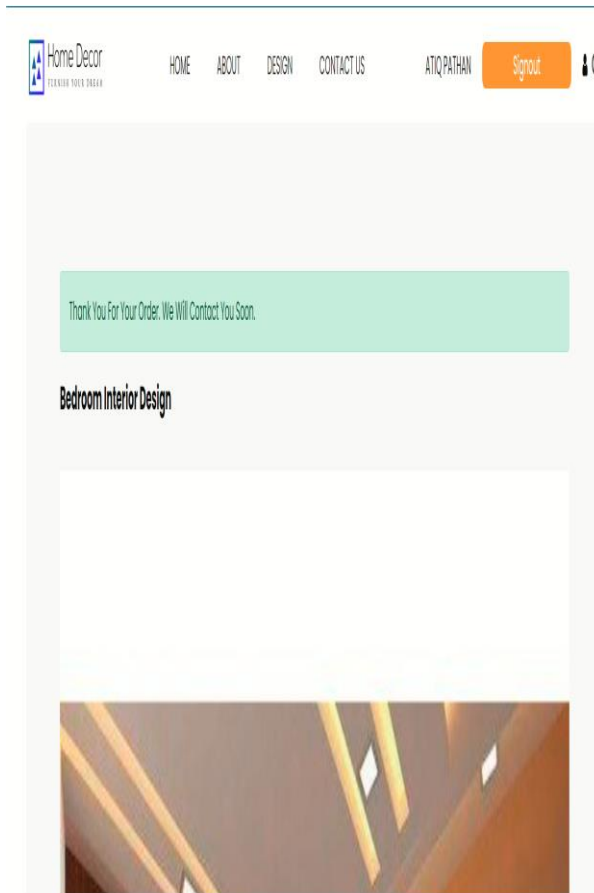


Figure 5.11: Design Buy

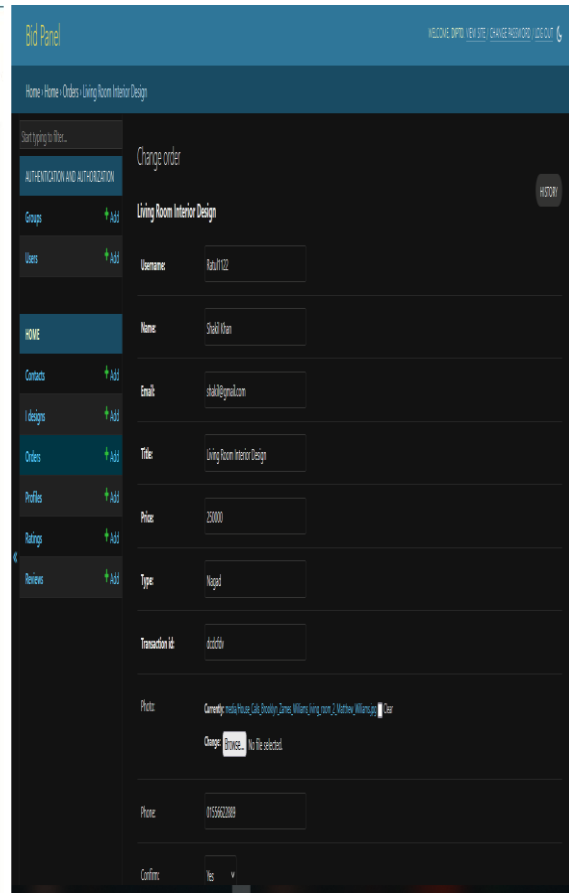


Figure 5.12: Buying request from user

Figure 5.11 showed user want to buy this particular design. The user's purchasing request is depicted in Figure 5.12.

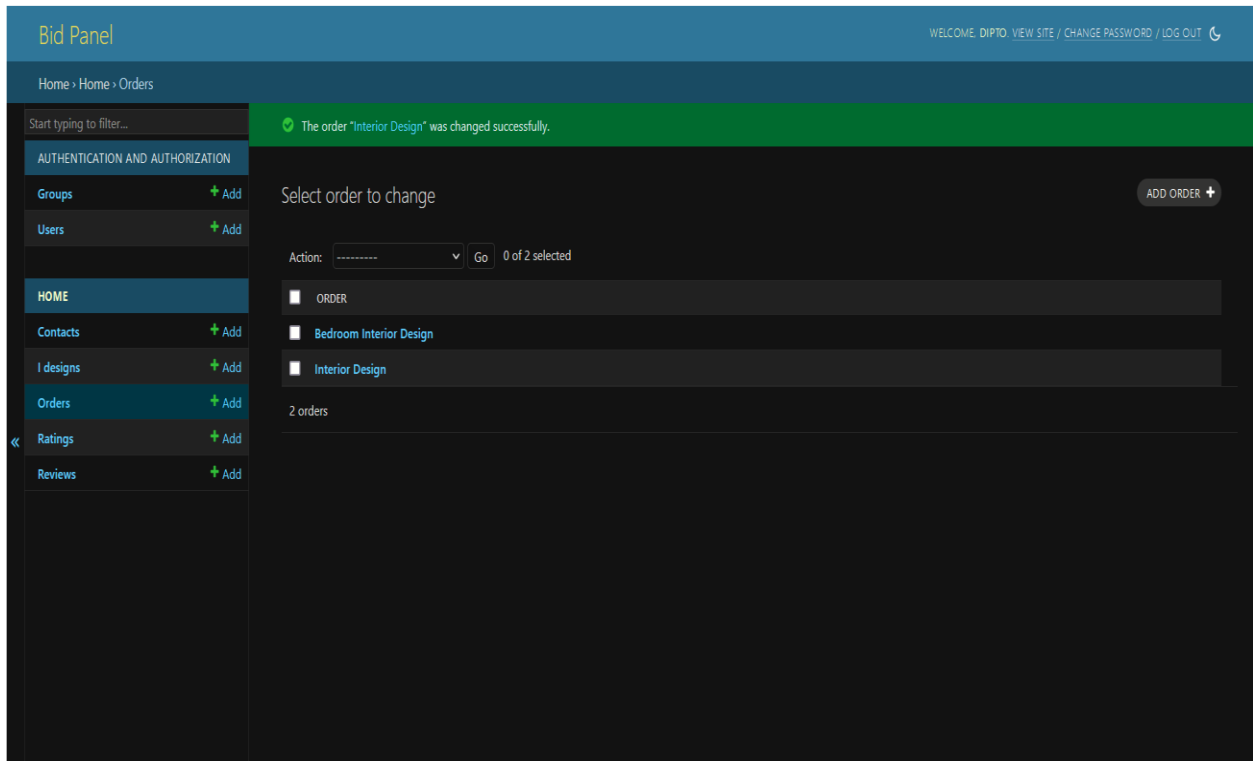


Figure 5.13: Admin order Page.

An admin may use the DELETE action to confirm client reservations or start cancellations by looking at the list of user purchasing requests shown in Figure 5.13. The list presents designs that customers have selected for purchase, illuminating the website user's choosing process.

For this reason user confirm payment and press buy button to buy it. Now Admin needs to give permission. Then the consumer will able to complete the process.

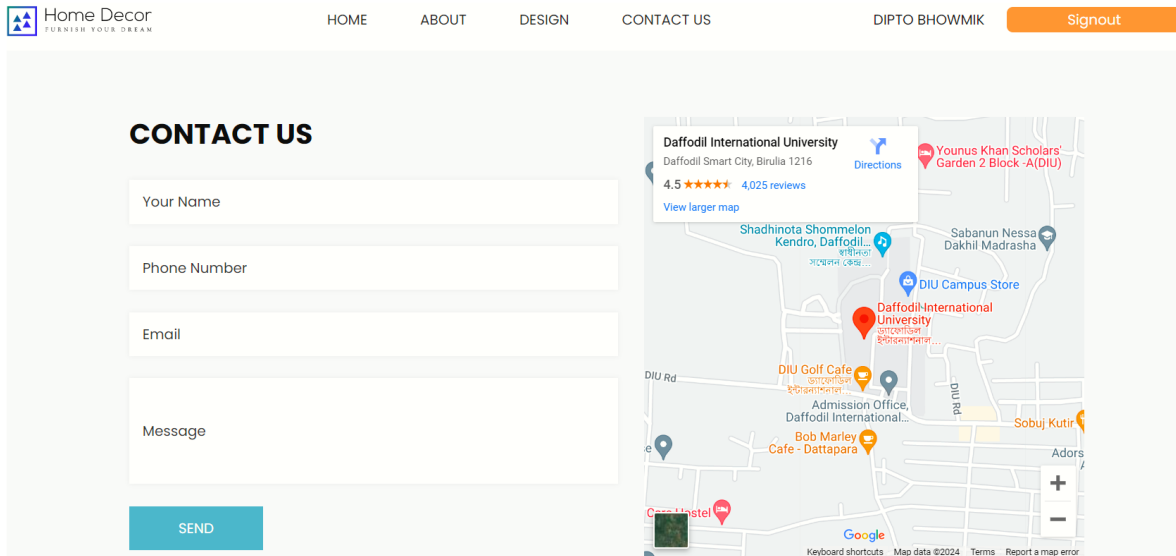


Figure 5.14: Contact us

This is our contract us page for seller or user. Through this they can contract with admin.

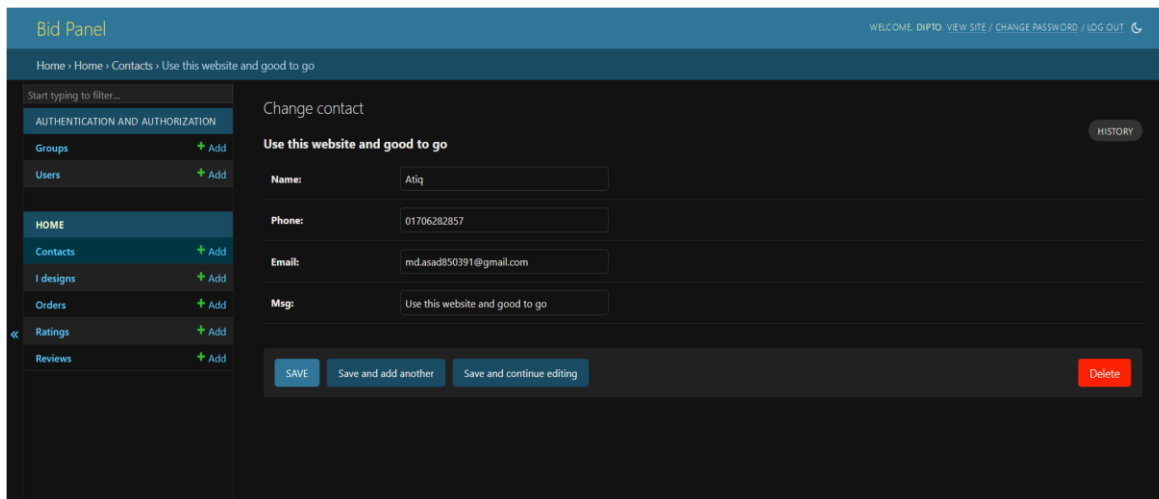


Figure 5.15: Admin Message Interface

A user may send a message using the Contact us option, as shown in Figure 5.14. A user's name and email address are required fields. As seen in Figure 5.15, an administrator may therefore identify the sending user. In order to get additional information, a user might submit a review, recommendation, or communication of any kind. Upon receiving this communication from the user, an administrator may respond. Admin has the option to either save or remove the message.

5.2.2 Admin Main Modules

Figure 5.4 displayed the functionality modules of the admin. Additional discussion of this section is provided below:

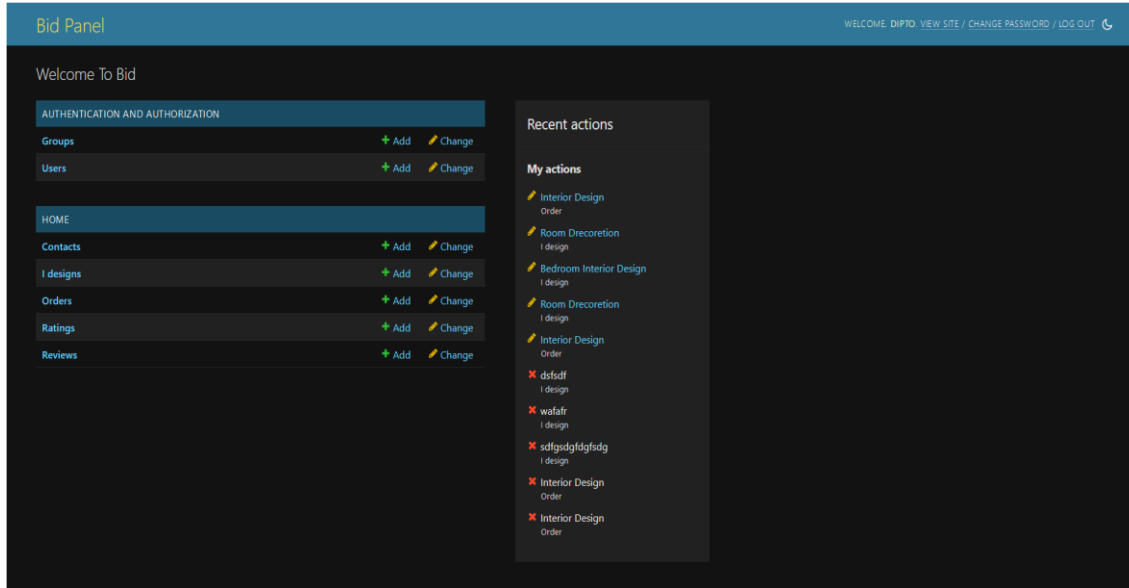


Figure 5.16: Admin Main Interface

Authentication and Authorization and Home are the two primary components on the Administration Main page, as seen in Figure 5.16. From this page, the admin, who is in charge of managing the whole Home Decor website, may take full control of the site. A list of the website's registered users is shown in the first view, highlighting the crucial role that admin control and user management play.

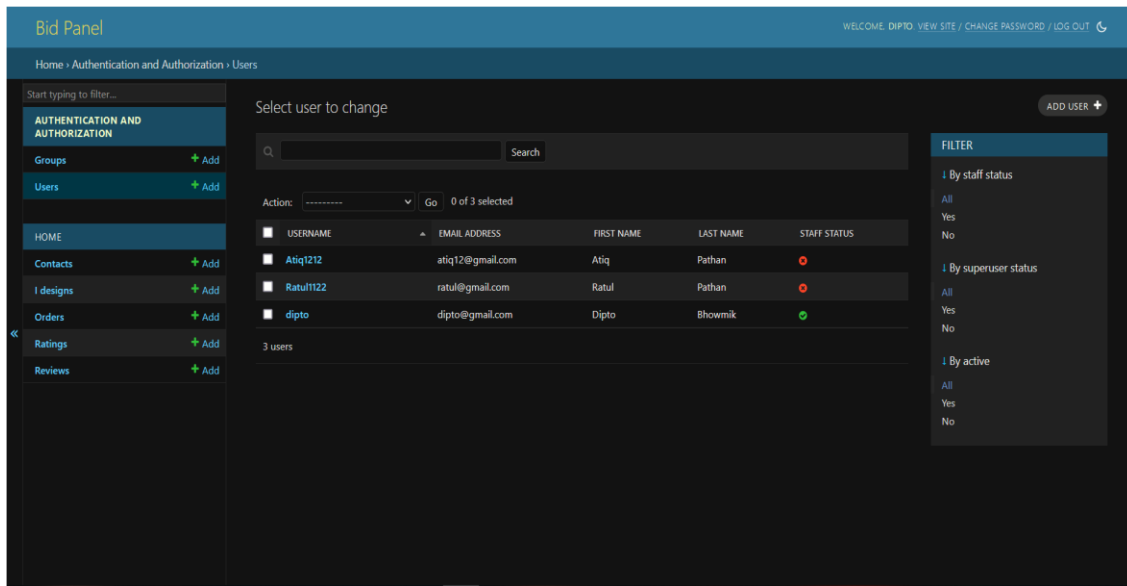


Figure 5.17: List of User

In figure 5.17, we can see the user list of this website. Admins can add or delete a user or a consumer from this list. If an admin deletes a user profile from this database, then those users will lose their accounts. And if that user wants to use this website again, then that user needs to sign up again.

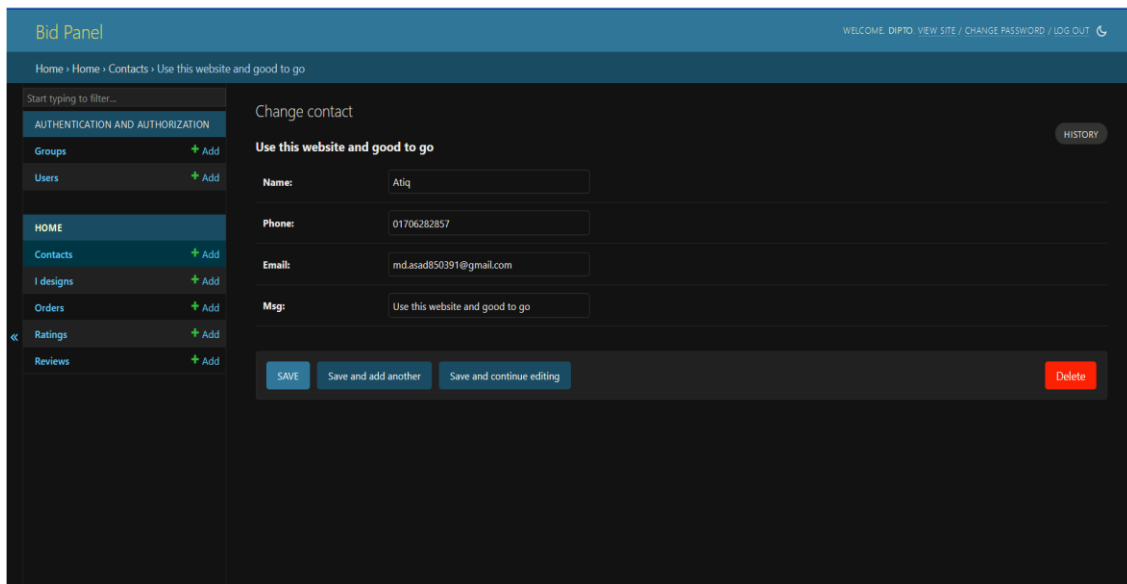


Figure 5.18: Admin contact List

A user sends a message from their contact page, as shown in Figure 5.18, and the admin may see it in the admin contact area. The client's email address and name are visible to the admin, who may use this interface to reply, store, or remove the message they have received.

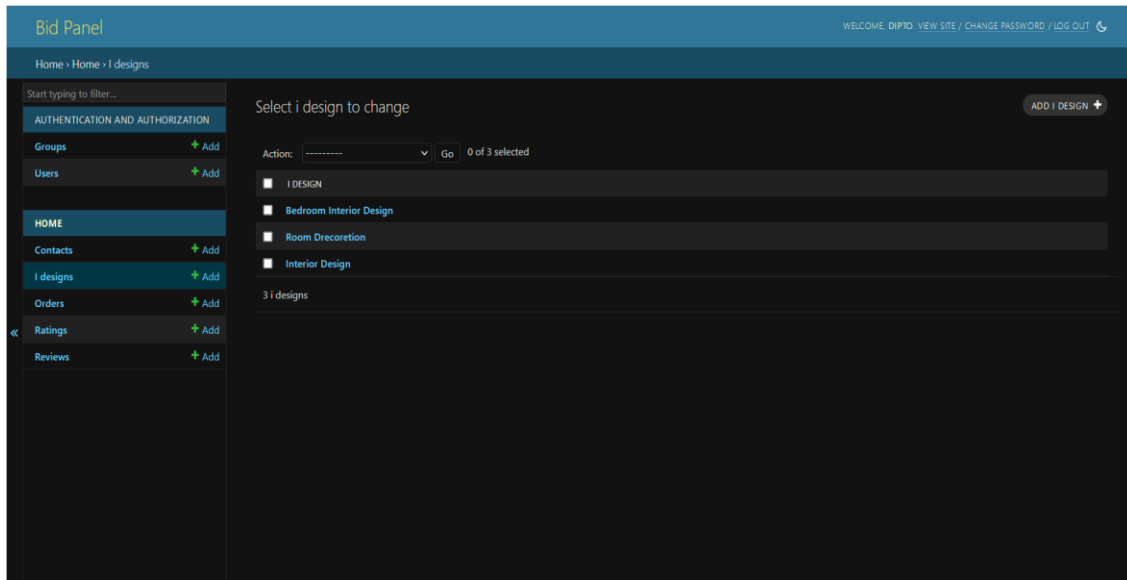


Figure 5:19: Admin design list(provide by user)

In figure 5.19, it shows us that the design was uploaded by the consumer or user. When a designer, a user, or a consumer uploads any design to the website, the request comes to the admin to approve it. If admin approves the request or admin verifies the request, then the design will show on the website. If admin wants to delete or remove any design, then admin can remove it.

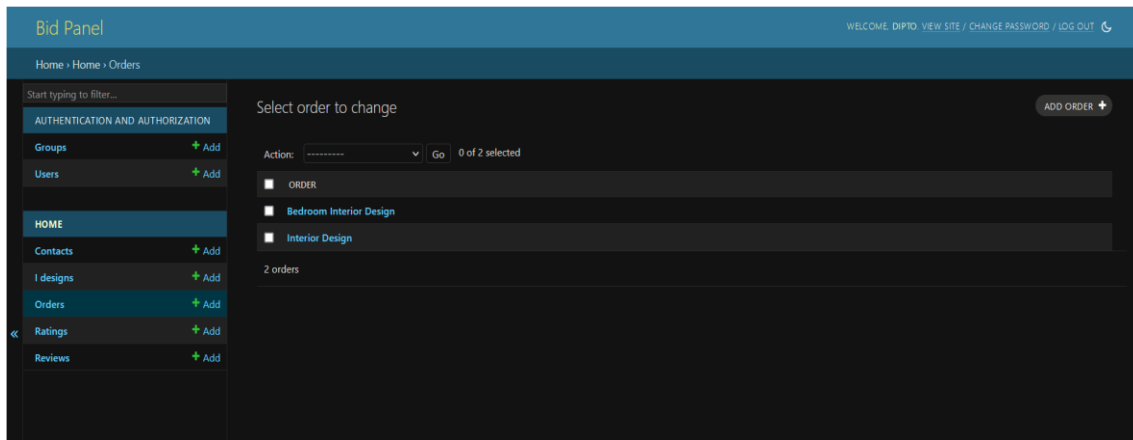


Figure 5.20: Order Page

In figure 5.20, it shows us that the design was ordered by the consumer or user. When a designer, a user, or a consumer orders or wants to buy any design on the website, the request comes to the admin to be approved. If admin approves the request or admin verifies the request, then the design can be bought from the website. If admin wants to delete or remove any order, then admin can remove it.

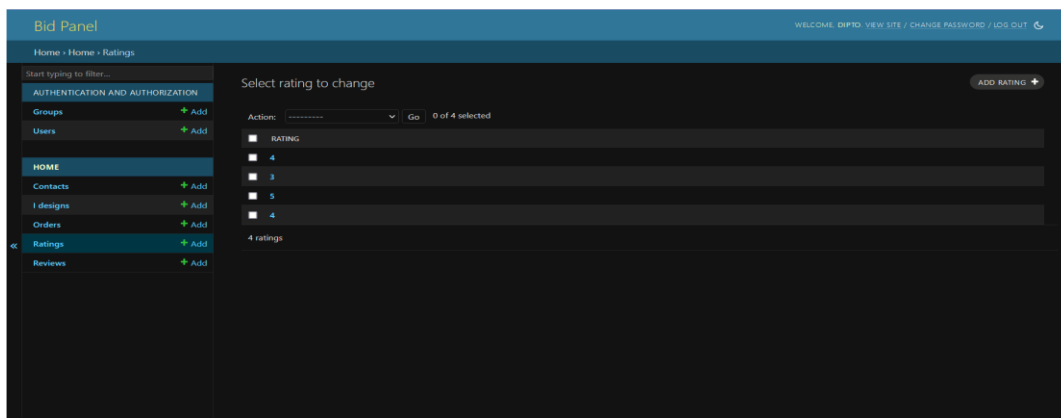


Figure 5.21: Rating database in Admin Panel

Figure 5.21 illustrates how a user may provide a satisfaction rating to a design. Rates may also be added to a design by admins.

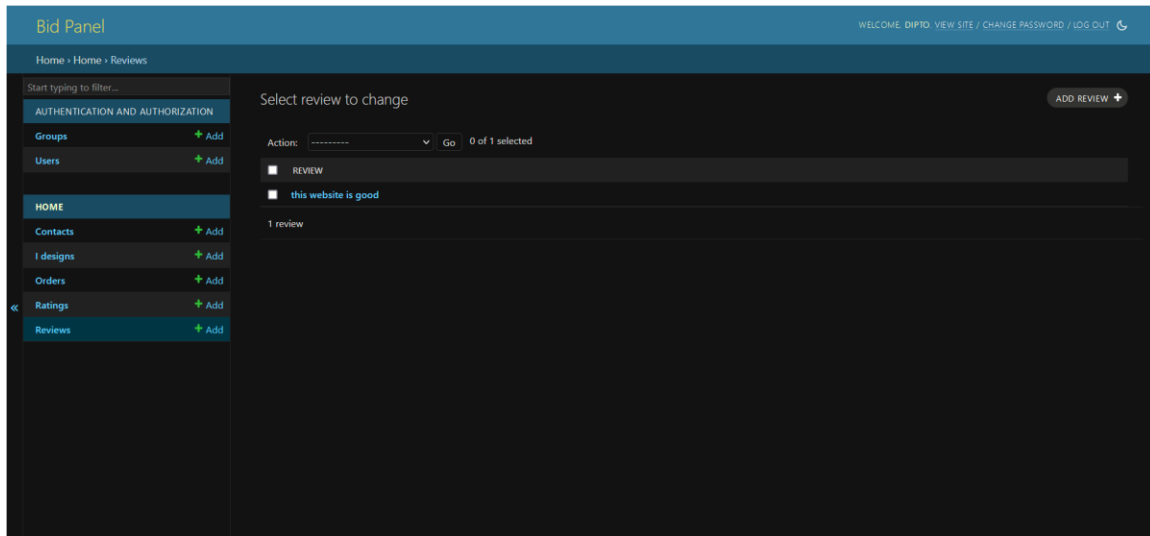


Figure 5.22: Admin Review Database

Figure 5.22 presents the review list. The administrator may save the review, edit it, or delete it.

5.3 Implementation of Interaction

Every project's ability to engage users is critical to its success. Hence, project success is of utmost significance. The expectation of every individual in our nation who utilizes the internet is to have a user-friendly application. Users are not interested in utilizing applications with a high degree of complexity. Therefore, my involvement was prioritized as the foremost aspect of the user-friendly program. Therefore, I made a concerted effort to ensure that my online application is as Easy to use, like feasible.

5.4 Testing Implementation

A systematic approach is used in the testing implementation for "Home Decor- Furnish your dream" to ensure the platform's performance, security, usability, and utility. Below is an overview of the testing procedures:

Types of Testing:

- 1. Unit testing:** Verify that individual components, functionalities, and modules function as intended.
- 2. Integrity testing:** Involves scrutinizing the interaction between several components to ensure seamless functioning and integration.
- 3. System Testing:** Validate that the system's behavior and overall functioning meet the given standards.
- 4. Security testing:** It involves conducting security assessments to identify vulnerabilities and provide robust protection against potential threats.
- 5. Performance testing:** It involves assessing the system's responsiveness and stability by evaluating its performance under different levels of workload.

Testing Procedures:

- 1. Test Case Development:** Generate exhaustive test cases including all functionality, edge situations, and user scenarios.
- 2. Implementation and Documentation:** Carry out test cases in a methodical manner, document outcomes, and provide comprehensive reports outlining successful and unsuccessful situations.
- 3. Bug Tracking:** Utilize bug tracking tools to record and oversee detected problems, allocating priority and monitoring remedies.
- 4. Conduct regression testing:** After bug patches or the introduction of new features to verify that current functions are unaffected.

5.5 Testing Result and Reports

Testing the software to find and fix errors is an important phase in the development process. During the testing process, I discovered several issues and successfully resolved virtually all of them. To verify the app's reliability and simplicity, I'm now seeking more testing from a larger audience before completing the release.

Categories of Tests:

1. Unit testing: Verify the correct functioning of individual components, functionalities, and modules.

2. Integrity testing: Involves scrutinising the interaction between various components to ensure seamless functioning and integration.

3. System Testing: Validate that the system's behaviour and overall functioning meet the given standards.

4. User Acceptance Testing (UAT): Entails engaging stakeholders in scenario-based testing that aligns with real-world situations to ensure that the platform meets user requirements.

5. Security testing: Involves conducting security assessments to identify vulnerabilities and provide robust protection against potential threats.

6. Conduct performance testing: To assess the system's responsiveness and stability by monitoring its performance under different levels of workload.

Testing Reports:

The testing techniques for an interior design or home decor website include several facets to guarantee the website's functionality, user-friendliness, and ability to provide a great experience to visitors. Below is a comprehensive overview of testing protocols that you should take into account:

1. Functional Testing:

- Verify the proper functioning of all interactive elements, including navigation menus, sliders, picture galleries, and buttons.
- Validate the functionality of hyperlinks by ensuring they are functioning appropriately and directing users to the intended web sites.
- Verify the functioning of the search feature to ensure it is operational and delivering relevant results.

The user did not provide any text. Verify the operational effectiveness of various types of forms, such as contact forms and registration forms.

2. Compatibility Testing:

- Conduct compatibility testing by evaluating the website's performance on various web browsers such as Chrome, Firefox, Safari, Edge, etc.
- Verify that the website is adaptable and performs optimally on several platforms, including desktops, laptops, tablets, and smartphones.

3. Usability Testing:

- Assess the overall user experience and interface design.
- Ensure the website's navigational structure is user-friendly and facilitates efficient information retrieval.
- Ensure the presence of uniform design components and branding throughout the whole website.

4. Functioning Testing:

- Evaluate the website's loading speed to verify prompt and effective functioning.
- Evaluate the website's performance under varying amounts of traffic.

- Enhance the load times by optimising photos and other media assets.

5. Material Evaluation:

- Assess all material for precision and pertinence.
- Ensure proper presentation and formatting of pictures and text.
- Verify the presence of any damaged or absent pictures and hyperlinks.

6. Security Testing:

- Enforce security protocols to safeguard user data.
- Conduct a thorough examination for vulnerabilities such as SQL injection or cross-site scripting.
- Guarantee the safe transfer of confidential data.

7. Conducting Accessibility Testing:

- Ensure that the website adheres to accessibility requirements as outlined by the Web Content Accessibility Guidelines (WCAG).
- Conduct website testing using screen readers to verify its accessibility for people with impairments.

8. Cross-Device Testing:

- Conduct tests on several devices and screen sizes to guarantee a uniform user experience.
- Conduct a thorough examination to identify any design or operational flaws that are exclusive to certain devices.

9. Browser Console Testing:

- Utilise browser developer tools to inspect the console for any issues or warnings.

- Address any potential problems that might impact the performance or functioning of the website.

10. User Acceptance Testing (UAT):

- Engage real users to conduct testing of the website in order to get input on its usability and functionality.
- Resolve any problems or address any concerns that have been brought up during the User Acceptance Testing (UAT) phase.

It is essential to do testing at different phases of development in order to detect and resolve difficulties at an early level. Automated testing technologies may be used to optimise the testing process.

CHAPTER 6

CONCLUSION AND FURTHER SCOPE

5.1 Discussion and Conclusion

As our examination of living space interior design draws to a close, we hope that it has given you ideas and information that will help you make places that are beautiful, useful, and reflect your own style. Our promise to you is to help you through the process of changing places so they show your unique personality. We at Home Decor know that your home is more than just a building. It's a blank canvas for your life, a safe place to be, and a stage for your memories. Our goal is to give you the information and ideas you need to start a design journey that goes beyond trends and embraces classic beauty that is uniquely yours. As you read through our carefully chosen insights, useful tips, and fresh ideas, think about how many options are available to you in your own home. No matter if you like the clean lines of modern minimalism, the classic beauty of patterns, or the varied style of boho chic, our tools are made to inspire you. We are pleased to be a part of your story-telling journey. Your room is a story waiting to be told. Let the symphony of colors, textures, and furniture in your home be the notes that make up the tune of your daily life. We are not just space planners at Home Decor; we help you make your dreams come true by turning your home into a work of art. We're glad you picked us to go on this design journey with you. May your homes be works of art that show off the beauty of life, with each detail speaking to your unique personality. You are on an adventure as you make your house reflect who you are and how you live. We look forward to being with you every step of the way. Committed to timeless elegance and personalized style, we offer expert insights and tips to guide you in transforming your home into a masterpiece of beauty and functionality. Explore a spectrum of design styles, from modern minimalism and immerse yourself in a symphony of colors, textures, and furnishings. Your dream space awaits – shape a home that authentically reflects your unique personality and lifestyle, transcending trends.

6.2 Further Developments Scope

The development of any project is never-ending. Therefore, I intend to carry forward this project in the future, and the following are some outlined plans:

- I may include the newest blog.
- I am able to add notifications to every admin and user profile.
- The user may add a photo to modify the design.
- I can add Testimonial.
- Filter function will be smooth.
- I can add more info in profile.
- I can update security patch.

REFERENCES

- [1] Reord, Available at <<<https://reorde.com>>> Last accessed on 23-12-2023 at 5.00 PM
- [2] Cathiehonginteriors, Available at <<<https://cathiehonginteriors.com>>> Last accessed on 12-12-2023 at 10.00 PM
- [3] Arong, Available at <<<https://www.aarong.com>>> Last accessed on 11-11-2023 at 11.00 AM
- [4] Bdinterior, Available at <<<https://bdinterior.net>>> Last accessed on 03-12-2023 at 3.00 AM
- [5] Interiorconceptbd, Available at<< <http://www.interiorconceptsbd.com>>> Last accessed on 05-11-2023 at 10.00 AM

PLAGARISM REPORT

HOME DECOR

ORIGINALITY REPORT

7 %	6 %	0 %	5 %
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Submitted to Daffodil International University Student Paper	4 %
2	dspace.daffodilvarsity.edu.bd:8080 Internet Source	3 %
3	cimicdigital-cdn.azureedge.net Internet Source	<1 %
4	Briggs, Shannon. "Sensemaking in a Multimodal Collaborative Environment.", Rensselaer Polytechnic Institute, 2020 Publication	<1 %

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