VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Jnana Sangama, Belagavi – 590018

MINI PROJECT REPORT

ON

"Dress Rental Store Management System"

Submitted in partial fulfillment for the requirement of VI semester for the

DEGREE OF BACHELOR OF ENGINEERING IN

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SUBMITTED BY:

CHANDANA HS (1DB20IS033)

DEEPIKA ML (1DB20IS043)

Under the guidance of:

Ms. Varsha R

Assistant Professor

Dept. of ISE, DBIT

Department of Information Science and Engineering

DON BOSCO INSTITUTE OF TECHNOLOGY, BENGALURU-560074

DON BOSCO INSTITUTE OF TECHNOLOGY

Kumbalagodu, Bengaluru-560074

DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING

CERTIFICATE

This is to certify that the Mini Project Report entitled **"Dress Rental Store Management System"** is a bonafide Mini Project work carried out by **Chandana HS (1DB20IS033)** & **Deepika ML (1DB20IS043)** in partial fulfillment of VI semester for the degree of **Bachelor of Engineering** in **Informatio3`n Science & Engineering** of Visvesvaraya Technological University, Belagavi, during the academic year 2022-23. It is certified that all corrections/suggestions indicated for internal assessments have been incorporated with the degree mentioned.

Project Guide	**Head of Department**
Ms. Varsha R	**Dr. B K Raghavendra**
Assistant Professor	Head of Department
Dept. of ISE,	Dept. of ISE,
DBIT, Bengaluru.	DBIT, Bengaluru.

External Viva

Name of the Examiner	**Signature with date**
1 _____	_____
2 _____	_____

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CHANDANA HS (1DB20IS033)

DEEPIKA ML (1DB20IS043)

ABSTRACT

The abstract of a Dress Rental Store Management System project would provide an overview of the system's objectives, features, and benefits. The Dress Rental Store Management System is a comprehensive software solution designed to streamline and automate the operations of a dress rental store. The system aims to improve the overall efficiency, accuracy, and customer experience of managing dress rentals, reservations, inventory, and sales.

Key features of the Dress Rental Store Management System include a user-friendly interface for customers to browse and reserve dresses online, an inventory management module to track dress availability, a reservation management system for scheduling and managing rentals, and a sales and billing module for processing payments and generating invoices. By implementing the Dress Rental Store Management System, dress rental store owners can benefit from several advantages. Firstly, the system simplifies the rental process for customers, allowing them to browse available dresses, check availability, and make reservations conveniently through an online platform. This enhances customer satisfaction and encouragesrepeat business.

CONTENTS

CHAPTER 1

INTRODUCTION

The Dress Rental Store Management System is a comprehensive software program created to automate and streamline a dress rental store's business processes. The system aims to make managing the dress inventory, customer reservations ,payments, and general store management easier. By implementing this system, dress rental businesses can boost productivity, raise client satisfaction, and ultimately improve their operational efficiency .Two key ideas that can be used to boost a dress rental store management system's performance are hash tables and indexing. A hash function is used to map keys to array indexes in a hash table, a type of data structure that enables constant-time access to data. This makes it simple to store and retrieve data using distinctive keys, like phone numbers or email addresses.

On the other hand, indexing is a method for accelerating the search process by compiling an index of important data fields. This can be useful when looking for specific information in a sizable dataset, such as locating all the donors who belong to a particular blood group. By creating a different data structure with references to the original data, indexing enables quick retrieval of the necessary information .A dress rental store management system that uses hash tables and indexing allows the store manager to effectively manage the inventory of dresses. It has capabilities like adding new dresses, categorizing dresses by type, size, and color , as well as tracking dress returns and damages and updating dress availability status. The overall project management is muchsimpler and more flexible thanks to this system.

Key Features

1.Dress Inventory Management: The system allows the store manager to efficiently manage the inventory of dresses. It includes features such as adding new dresses, categorizing dresses by type, size, and color, updating dress availability status, and tracking dress returns and damages.

2.Customer Management: The system provides tools to manage customer information, including registration, personal details, rental history, and preferences. It enables the store to maintain a comprehensive customer database, facilitating personalized service and targeted marketing campaign

1.1 Overview of the file structure

File Structures is the Organization of Data in Secondary Storage Device in such a way that minimize the access time and the storage space. A File Structure is a combination of representations for data in files and of operations for accessing the data. A File Structure allows applications to read, write and modify data.

1.2 Problem Statement

The purpose of this project is to develop a series of systems model for traffic passing through a 4-way intersection, controlled by traffic light. We will assume that arrangement of traffic lights and road lanes is fixed and that the lights switch from red to green to amber in a regular repetitive pattern. Moreover, we assume that driver behavior is constrained by the road rules (we keep this part really simple) and the desire to avoid vehicle collisions.

1.3 Aim and Objectives

The aim of a dress rental management system is to streamline and automate the process of renting dresses to customers. The primary objective is to provide a convenient and efficient platform for both dress rental businesses and customers, facilitating smooth operations and enhancing the overall rental experience. In-depth goals and objectives for a dress rental management system include the following:

1. Inventory Control
2. Reserving and Booking
3. Rental Planning
4. Customer Administration
5. Online Invoicing and Payments
6. Management of Damage and Security Deposits
7. Analytics and Reporting
8. Integrating E-commerce Platform
9. Personnel Management

1.4 Existing System

The existing system of a dress rental store typically involves manual processes and paper-based recordkeeping. Here's an overview of the existing system:

1. Manual Reservation Process: Customers visit the store in person or contact the store via phone to inquire about dress availability and make reservations. Store staff manually check the availability of dresses, note down customer details, and record the reservation information on paper or in a spreadsheet.

2. Inventory Management: The store maintains a physical inventory of dresses, which is manually updated as dresses are rented out or returned. The staff must visually inspect the dresses and manually update the inventory records.

3. Paper-Based Documentation: Customer information, rental agreements, and payment details are recorded on paper documents. This increases the chances of errors, misplaced documents, and difficulty in accessing and managing information efficiently. The existing system may lack efficiency, accuracy, and scalability. It can lead to manual errors, difficulties in managing inventory, and limited customer reach. It may also result in time consuming administrative tasks and potential customer dissatisfaction due to limitations in accessing.

1.4.1Disadvantages

1. **Initial setup cost:** Implementing a dress rental store management system requires an upfront investment in software, hardware, and training. This initial cost may be a barrier for small businesses or those with limited resources.

2. **Technical issues:** Like any software system, there may be technical issues or glitches that can disrupt operations orcause downtime. This can negatively impact the customer experience and lead to loss of revenue.

3. **Limited control over dress handling:** When dresses are rented out, they are in the possession of the customers, and there is a risk of damage or loss. Despite efforts to maintain the dresses, accidents can happen, and the store may need toreplace or repair dresses, affecting profitability.

4. **Sizing and fit challenges:** Dress sizes and fit can vary among customers, and it can be challenging to ensure that a rented dress will perfectly fit every time. This may result in customers being dissatisfied with the fit and could lead to negative reviews or return requests.

CHAPTER 2

PROPOSED SYSTEM

2.1 Proposed System of Project

The proposed Dress Rental Store Management System aims to revolutionize the operations of a dress rental store by introducing a comprehensive and efficient software solution. Here are the key components of the proposed system. Online Dress Catalog and Reservation: The system will provide an online platform where customers can browse the dress catalog, view dress details, check availability, and make reservations conveniently. Customers can search for dresses based on size, color, style, or occasion, ensuring a seamlessbrowsing experience.

Reservation Management and Scheduling: The system will include a reservation management module that allows store owners and staff to manage dress reservations effectively. It will provide a centralized view of all reservations, their status, and associated customer information. The module will also facilitate scheduling and tracking of dress pickups and returns, ensuring smooth operations and minimizing conflicts or delays.

The system's features such as online dress catalog, inventory management, reservation and scheduling, online payment processing, reporting, and customer management will contribute to the overall growth and success of the dress rental business. A file structure is a combination of representation for data in files and of operations for accessing the data. A file structure allows you to read, write, and modify data. It might also support finding the data that matches some search criteria or reading through the data

2.2 ADVANTAGES

1. Increased revenue: A dress rental store management system can help optimize the rental process, streamline operations, and attract more customers, leading to increased revenue for the business.

2. Cost-effective: Instead of purchasing new dresses for every customer, a rental system allows the store to rent out dresses multiple times, reducing the need for inventory and lowering costs associated with purchasing and storing new dresses.

3. Wide variety of options: A dress rental store can offer a larger selection of dresses to customers since they are not limited by the number of dresses they can purchase. This provides customers with more options and increases the chances of finding the perfect dress for their occasion.

CHAPTER 3

SYSTEM REQUIREMENT

3.1 SOFTWARE REQUIREMENTS

- Programming Language: Python.
- Software used:PyCharm.
- Frontend: python.
- Backend: files.

3.2 HARDWARE REQUIREMENTS

- RAM: 8 GB
- Processor: Intel core
- Operating System: Windows 10

CHAPTER 4

IMPLEMENTATION

4.1 File creation

In a Dress Rental Management System ,file creation can be an important aspect for storing and managing data related to dresses ,customers ,orders ,and other relevant information.

4.1.1 Add Function

The add option is used to add the new collection of dresses to the main menu .

- **Source Code:**

```
def add_book():
    global book_id
    global book_name
    global author_name
    global add_menu

    add_menu=Tk()
    add_menu.wm_title("Add")
    add_menu.minsize(600,550)
    add_menu.maxsize(600,550)
    #add_menu.resizable(0,0)
    k_font = tkinter.font.Font(family='Times new roman', size=12, weight=tkinter.font.BOLD)

    book_id_label=Label(add_menu,font=('arial',18,'bold'),text="Dress ID (Should be of atleast length 5)")
    book_label=Label(add_menu,font=('arial',18,'bold'),text="Dress Name")
    author_label=Label(add_menu,font=('arial',18,'bold'),text="Brand")
    book_id=Entry(add_menu)
    book_name=Entry(add_menu)
    author_name=Entry(add_menu)
    addbutton1=Button(add_menu,command=add_check,text=" Add Dress ",bg='dark orange',height=1,width=10,font=k_font)

    book_id_label.grid(row=0,sticky=E)
    book_id.grid(row=0,column=1)
    book_label.grid(row=1,sticky=E)
    book_name.grid(row=1,column=1)
    author_label.grid(row=2,sticky=E)
```

```
author_name.grid(row=2,column=1)
        addbutton1.grid(columnspan=2)

        add_menu.mainloop()

def add_check():
        global b_id
        b_id=book_id.get()
        b_name=book_name.get().upper()
        a_id=author_name.get()

        if len(b_name)==0:
                tkinter.messagebox.showinfo("Add Dress","You did not type a Dress name O_O")
                add_menu.lift()
                return(add_book)

        if len(b_id)!=5 or b_id.isdigit()==False:
                tkinter.messagebox.showinfo("Add Dress","Please renter the details(ID should be 5
positive integers)")
                add_menu.lift()
                return(add_book)

        if len(a_id) == 0:
                a_id = "Anonymous"

        pos = binary_search('Bindex.txt', b_id)
        if pos != -1:
                tkinter.messagebox.showinfo("Dress","Dress already present.Please try again")
                add_menu.lift()
                return(add_book)

        f22 = open ('BData.txt', 'a')
        pos = f22.tell()
        f33 = open ('Bindex.txt', 'a')
        buf = b_id + '|' + b_name + '|' + a_id + '|' + 'Y' + '|' + '#'
        f22.write(buf)
        f22.write('\n')
        buf = b_id + '|' + str(pos) + '|' + '#'
        f33.write(buf)
        f33.write('\n')
        f33.close()
        f22.close()
        key_sort('Bindex.txt')
        tkinter.messagebox.showinfo("Add","Dress added Successfully!")
        add_menu.destroy()
```

4.1.2 Delete Function

This page helps the users to remove the dress from the main option which contains delete in and delete check.

- **Source Code:**

```
def del_book():
    global rb_id
    global del_menu

    del_menu=Tk()
    del_menu.wm_title("Delete")
    del_menu.minsize(1000,600)
    del_menu.maxsize(1000,600)
    del_menu.resizable(0,0)
    k_font = tkinter.font.Font(family='Times new roman', size=10, weight=tkinter.font.BOLD)

    Id=[]
    Title = []
    Author = []
    Availability = []

    f1 = open('Bindex.txt', 'r')
    f = open ("BData.txt", 'r')
    norecord = 0
    for line in f1:
        if not line.startswith('*'):
            norecord += 1
            line = line.rstrip('\n')
            word = line.split('|')
            f.seek(int(word[1]))
            line1 = f.readline().rstrip()
            word1 = line1.split('|')
            Id.append(word1[0])
            Title.append(word1[1])
            Author.append(word1[2])
            Availability.append(word1[3])
    f.close()
    #f1.close()

    borrow_list=Listbox(del_menu,height=50,width=20)
    borrow_list2=Listbox(del_menu,height=50,width=50)
    borrow_list3=Listbox(del_menu,height=50,width=50)
```

```
borrow_list4=Listbox(del_menu,height=50,width=20)

    for num in range(0,norecord):
        borrow_list.insert(0,Id[num])
        borrow_list2.insert(0,Title[num])
        borrow_list3.insert(0,Author[num])
        borrow_list4.insert(0,Availability[num])


    b_label=Label(del_menu,text="Book ID")
    rb_id=Entry(del_menu)
    delbutton1=Button(del_menu,command=del_check,text=" Remove book ",bg='dark
orange',height=1,width=10,font=k_font)
    borrow_list2.configure(background="pink")
    borrow_list3.configure(background="pink")
    borrow_list.configure(background="light grey")
    borrow_list4.configure(background="light grey")
    borrow_label=Label(del_menu,text="Id")
    borrow_label2=Label(del_menu,text="Dress")
    borrow_label3=Label(del_menu,text="Brand")
    borrow_label4=Label(del_menu,text="Availability")

    borrow_label.grid(row=6,column=0)
    borrow_label2.grid(row=6,column=1)
    borrow_label3.grid(row=6,column=3)
    borrow_label4.grid(row=6,column=6)

    borrow_list.grid(row=7,column=0)
    borrow_list2.grid(row=7,column=1)
    borrow_list3.grid(row=7,column=3)
    borrow_list4.grid(row=7,column=6)
    b_label.grid(row=0,sticky=E)
    rb_id.grid(row=0,column=1)
    delbutton1.grid(row=2,columnspan=1)
    del_menu.mainloop()

def del_check():

    global del_id
    del_id=rb_id.get()

    if len(del_id)==0:
        tkinter.messagebox.showinfo("Delete Dress","You did not type anything O_O")
        del_menu.lift()
        return(del_book)
```

```
pos = binary_search('Bindex.txt', del_id)
        if(pos == -1):
                tkinter.messagebox.showinfo("Delete","Dress not present.Please re-enter")
                del_menu.destroy()
                return(del_book)
        else:
                f = open ('BData.txt', 'r')
                f.seek(pos)
                l1 = f.readline().rstrip()
                w1 = l1.split('|')
                if(w1[3] == 'N'):
                        tkinter.messagebox.showinfo("Delete","Dress currently borrowed. Please try
another Dress")
                        del_menu.destroy()
                        return(del_book)

        index = -1

        with open('Bindex.txt','r') as file:
                for line in file:
                        words=line.split("|")
                        if(words[0]==del_id):
                                        index=int(words[1])

        index=0
        with open("Bindex.txt",'r+') as file:
                line=file.readline()
                while line:
                        words=line.split("|")
                        if words[0]==del_id:
                                file.seek(index,0)
                                file.write("*")
                                break
                        else:
                                index=file.tell()
                                line=file.readline()
        tkinter.messagebox.showinfo("Delete","Dress Successfully removed")
        del_menu.destroy()
```

4.1.3 Search Function

This page helps the users to search their desired outfits which contains the search in and search check.

- **Source Code:**

```
def search_in():
	global  search_entry
	global search_menu
	search_menu=Tk()

	#search_menu.maxsize(500,100)
	#search_menu.maxsize(500,100)
	search_menu.wm_title("Search")
	#search_menu.resizable(0,0)
	search_menu.geometry("800x600")

	search_label1=Label(search_menu,text="Search out ,our latest collection and grab the best of all time costumes.\n For any occasion or any event\n we have the best collections of costumes in the market.",font=("Times", "15","bold","italic"),bg="purple")
	search_label1.place(x=20,y=20,height=70)

	search_entry = Entry(search_menu,width=100,bg="pink")
	search_entry.place(x=100,y=100,height=70)

	search_button=Button(search_menu,text="Search",height= 3,width= 20,command=search_check,font=("Times new roman","20","bold"),bg="pink",fg="black")
	search_button.place(x=250,y=300)

	search_menu.mainloop()




def search_check():
	search_word=search_entry.get().upper()
	search_menu.destroy()

	if len(search_word) == 0:
		tkinter.messagebox.showinfo("Search","You did not type anything O_O")
		return(search_in)

	pos = binary_search('Bindex.txt', search_word)

	if (pos == -1):
		tkinter.messagebox.showinfo("Search","Sorry,this outfit does not exist in our database")
	else:
		search_menu2=Tk()
```

```
search_menu2.wm_title("Search")
        search_menu2.attributes("-topmost",True)
tkinter.messagebox.showinfo("Search","It is in our database!")

search_result=Listbox(search_menu2,height=10,width=50)f2 =
        open('BData.txt', 'r')
f2.seek(pos)
l1 = f2.readline()l1 = l1.rstrip()
        w1 = l1.split('|') b_id =
        w1[0] book = w1[1]
        author = w1[2] if(w1[3]
        == 'Y'):
availability = 'Available'
else:
availability = 'Unavailable'
f2.close()

search_result.insert(1,"ID:" + b_id) search_result.insert(2,"Name:" +
        book) search_result.insert(3,"Author:" + author)
        search_result.insert(4,"Availability:" + availability)

search_result.pack()
        search_menu2.mainloop()
```

4.1 Description of methods

4.1.1 Indexing:

Indexing is the process of creating a searchable index of the content within files on a computer or server. This allows users to quickly search and retrieve specific information or content without having to manually scan through all the available files.

1. Simple indexing: This type of indexing creates an index of the file names and locations. When files are indexed using the simple indexing method, a list of file names and their locations is created, which can be used to quickly locate and access the files. Simple indexingis useful for small collections of files where the file names themselves provide enough information to locate the desired content.

2. Multiple indexing: When files are indexed using the multiple indexing method, a list of file names and their locations as well as other relevant information is created, which can be used to quickly locate and access the files. Multiple indexing is useful for larger collections of files or for files that contain a lot of information. However, it can be more complex to implement and may require more resources than simple indexing.

```
def binary_search(fname, search_key):
t = []
fin = open(fname,'r')
for lx in fin:
lx = lx.rstrip()
wx = lx.split('|')
t.append((wx[0], wx[1]))
fin.close()
l = 0
r = len(t) - 1
while l <= r:
mid = (l + r)//2
if t[mid][0] == search_key:
return int(t[mid][1])
elif t[mid][0] <= search_key:
l = mid + 1
else:
r = mid - 1
return-1
```

4.1.2 : Hashing:

Hashing in files is the process of generating a unique digital fingerprint of a file using a hashing algorithm. This fingerprint, also known as a hash value, can be used to verify the integrity of the file and ensure that it has not been tampered with.

There are several types of hashing algorithms that can be used for files, including MD5, SHA-1, and SHA-256. Each algorithm generates a different length of hash value, with longer hash values providing greater security.

```
def hash_password(password):
salt = hashlib.sha256(os.urandom(60)).hexdigest().encode('ascii')
pwdhash = hashlib.pbkdf2_hmac('sha512', password.encode('utf-8'),
salt, 100000)
pwdhash = binascii.hexlify(pwdhash)
return (salt + pwdhash).decode('ascii')
def verify_password(stored_password, provided_password):
salt = stored_password[:64]
stored_password = stored_password[64:]
pwdhash = hashlib.pbkdf2_hmac('sha512',
provided_password.encode('utf-8'),
salt.encode('ascii'),
100000)
pwdhash = binascii.hexlify(pwdhash).decode('ascii')
returnpwdhash==stored_password.
```

CHAPTER 5

SNAPSHOTS

5.1 REGISTRATION PAGE

The figure 5.1 is a registration page that provides information to the site's content. It serves a purpose and encourage visitors to explore further.

Figure 5.1: Registration Page

5.2 LOGIN PAGE

The figure 5.2 is a login page for customers to login by entering their credentials (such as user name and password) to access further contents. It verifies the user's credentials and grants access to the required services.

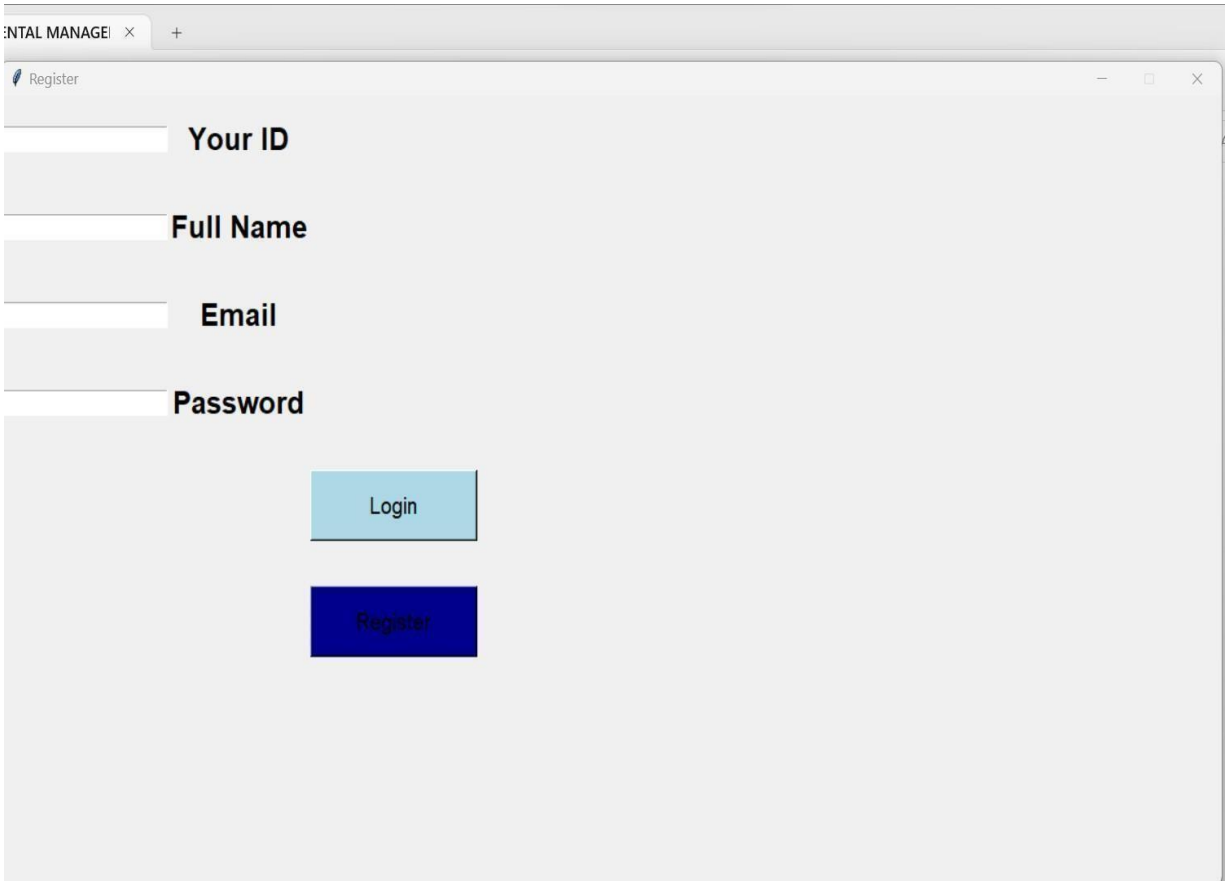

Figure 5.2: Login Page

5.3 HOME PAGE

The figure 5.3 provides home page that serves as a main dashboard for users. It is a primary web page that a user will view when they navigate to a website .it's purpose is to provide an overview of the site's functions to control and manage efficiently.

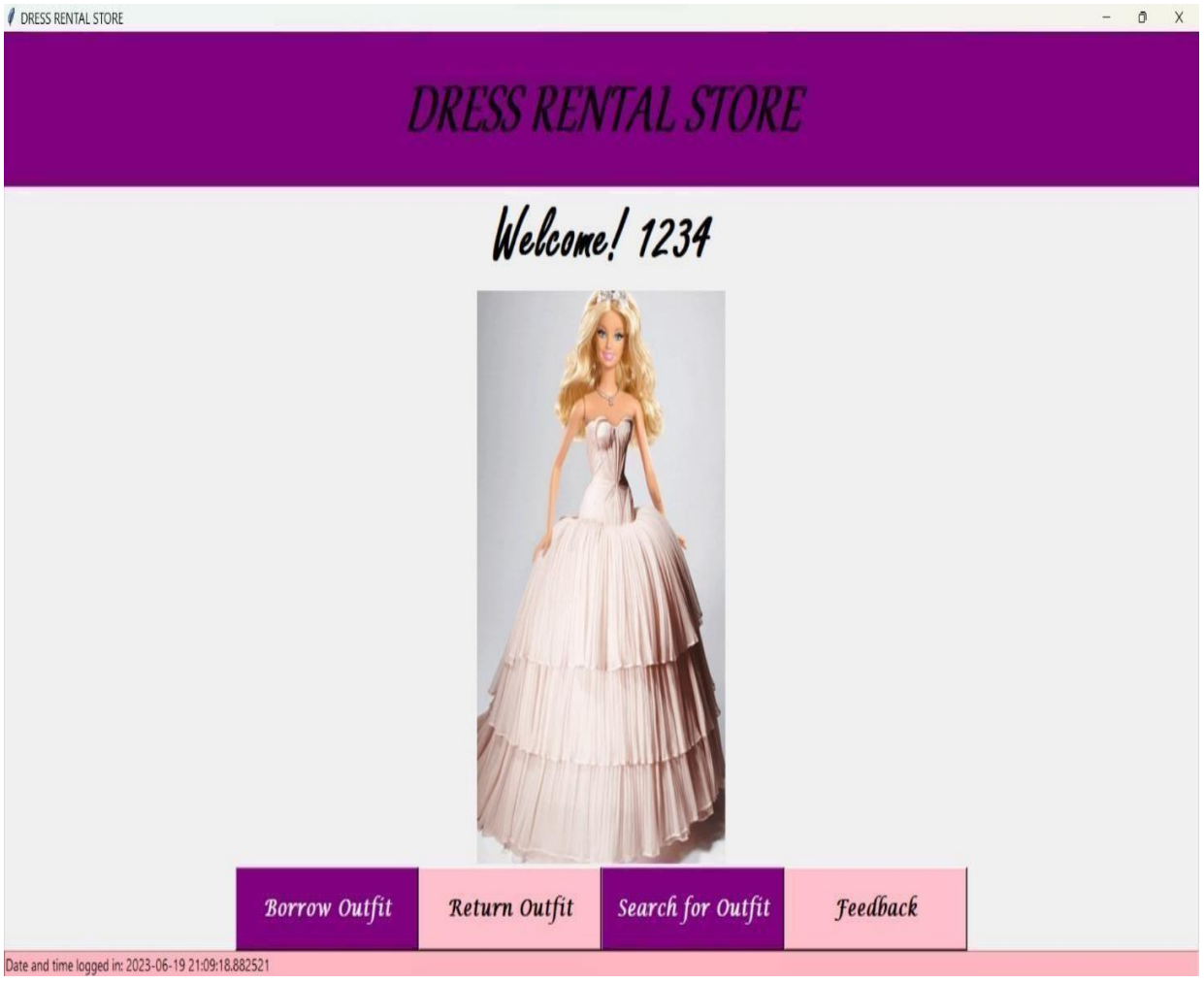

Figure 5.3 Home page

5.4 BORROW OUTFIT

The figure 5.4 provides the option to borrow the outfit. It says when the user click the options then user will be able to see the options in BorrowOutfit.

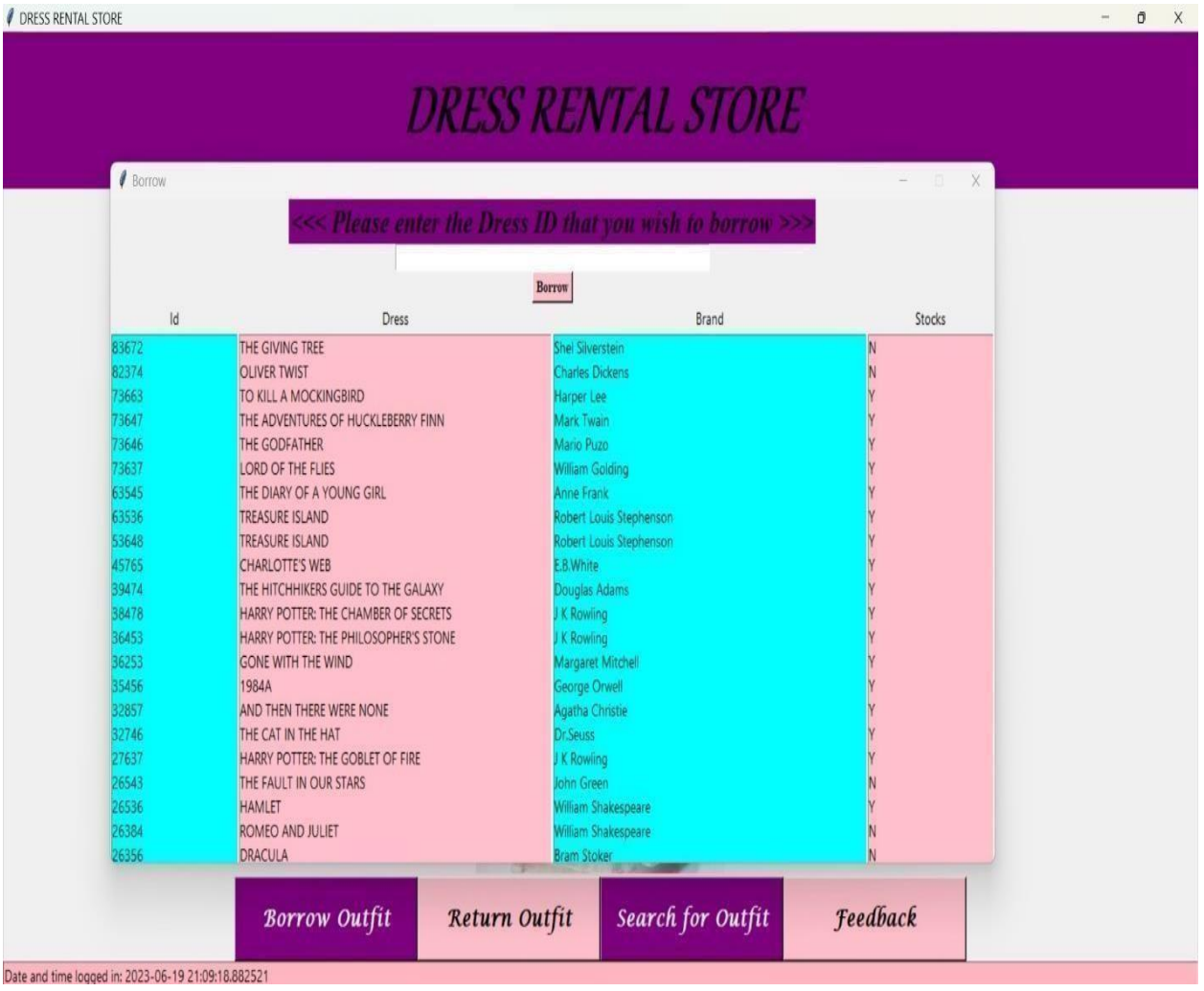

Figure 5.4: Borrow outfit

5.5 RETURN OUTFIT

The figure 5.5 says about returning the outfits .It also provides the information about how many outfit have been returned and for what reasons, like unmet expectations, damaged or defective products, and incorrect fit.

Figure 5.5: Return Outfit

5.6 SEARCH OUTFIT

The figure 5.6 is a search option, It helps users for searching the particular outfit from the dress rental store.

Fig.5.6 Search Outfit

5.7 FEEDBACK

The figure.5.7 is a feedback form which collect opinions about your company's service. This option is used to get the feedback from the customers.

Fig.5.7 Feedback

5.8 Admin Page

The figure 5.8 . is an admin panel which enables administrators of , website, or IT system to manage its configurations, settings, content, and features and carry out oversight functions critical to the business .It is used for Admin login.

Fig.5.8.Admin Page

5.9 Admin Menu

The figure.5.9 is a Admin Menu which gives several options for admin to operate.

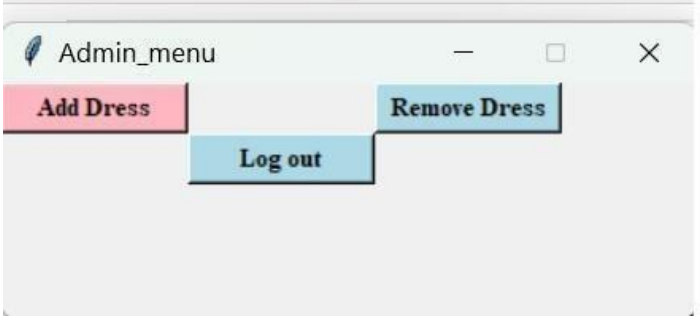

Fig.5.9 Admin Menu

5.9.1 Add Dress

The figure.5.9.1provides details about adding new dress to the main menu.

Fig.5.9.1 Add dress

5.9.2 Remove Dress

The figure 5.9.2 provides details about the dresses which are been removed from the main menu.

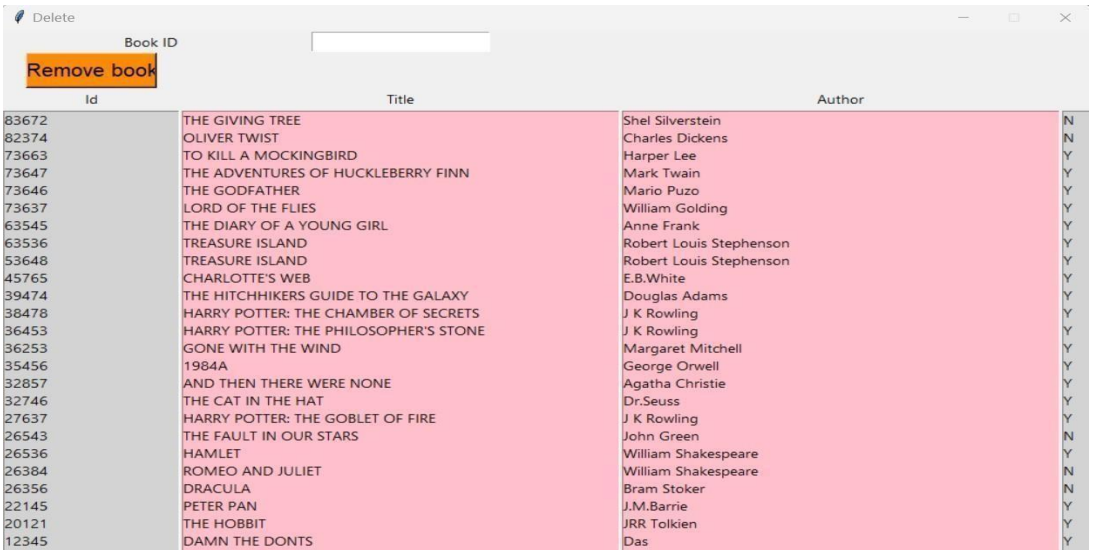

Fig.5.9.2Remove Dress

CHAPTER 6

CONCLUSION

The dress rental system provides a convenient and cost-effective solution for individuals who want to wear stylish and fashionable outfits for special occasions without the need to purchase them outright. Throughout this discussion, we have explored the various aspects of a dress rental system, including its benefits, challenges, and considerations. In conclusion, a dress rental system offers several advantages. First and foremost, it allows customers to access a wide range of clothing options, including designer dresses, at a fraction of the cost of purchasing them. This affordability makes high-end fashion more accessible to a broader audience. Additionally, dress rentals enable individuals to wear different styles for each occasion, avoiding outfit repetition and enhancing their fashion choices

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