Travel Management System

Overview:

The travel management system, **"Wanderlift,"** streamlines interactions among the company, managers, tour guides, and customers. Managers curate unique trips, facilitating services such as hotel bookings, car rentals, flights, and exciting activities. Tour guides register within the program to engage in these trips, while customers register to select personalized trips with their designated guides, often receiving exclusive vouchers.

- ### Manager:

In our company, the manager plays a pivotal role in ensuring the travel agency's smooth functioning by overseeing the addition, editing, deletion, and display of various elements including trips, car rentals, airport and flight details, hotels, and activities. They manage interactions with external agencies to secure all the necessary components for an exceptional travel experience, enabling customers to book their tickets seamlessly.

Additionally, the manager has the authority to view and edit their profile. An important aspect of their responsibility involves reviewing tour guide complaints and reassigning alternative tour guides in instances where complaints arise from assigned trips.

- ### Admin:

The admin, acting as the company's IT department, supervises all accounts including managers, tour guides, and customers. Their duties involve managing, adding, removing, and displaying accounts. On certain occasions, they're assigned to create accounts upon service requests from clients who acquired the system. However, the admin doesn't have the privilege to register directly through the system. Yet, if they manage to log in, they can create another admin account. Similarly, managers cannot register themselves but an admin can create a manager account. Their access is confined to viewing accounts and associated information; they are prohibited from direct interactions with the system.

- ### TourGuide:

Our tour guide system offers a comprehensive suite of functionalities, empowering guides to manage trips, review travel history, track earnings, and update profiles effortlessly. With secure registration, trip management features, complaint filing, and robust salary tracking, it ensures a streamlined and efficient experience. The platform facilitates seamless navigation, enabling tour guides to handle essential tasks, view detailed trip histories, and manage profile details with ease.

- **Customer:**

Customers possess the capability to access their profiles and book comprehensive trip packages covering car rentals, hotels, flights, and exclusive activities. Furthermore, they can review their booking history, manage ticket alterations, oversee and adjust travel services, provide feedback post-trip, receive unique vouchers for multiple bookings, and have the freedom to edit their travel services to suit their preferences.

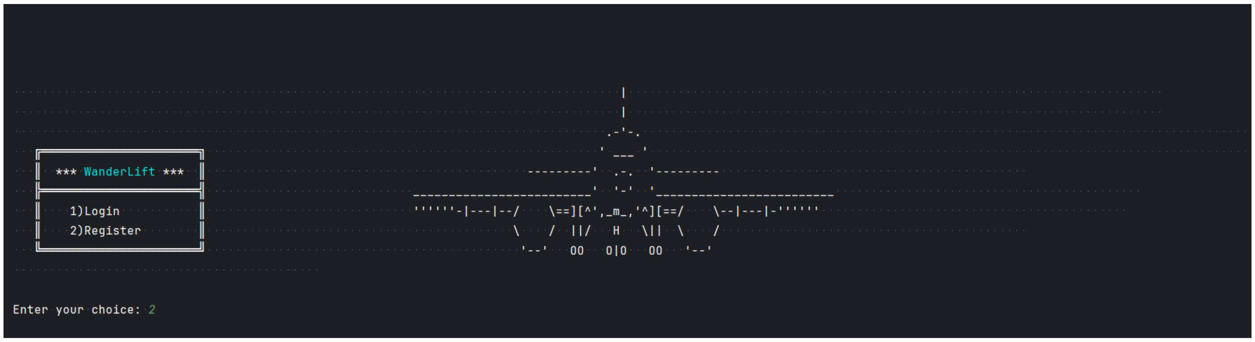
TourGuide Interface

Our system offers a compelling interface specifically designed for the tour guides, recognizing their pivotal role within our travel agency. We deliver distinctive and tailored functionalities catered explicitly to meet their needs.Through our platform, tour guides can easily sign up, log in, manage their trips, check travel history, track monthly earnings, update their profile details, and smoothly log out after their work is done. It's a one-stop solution for their essential tasks!

Functionalities:

1.Register

In our system, tour guides have the privilege to register, benefitting from crucial security measures. We guarantee the uniqueness of their usernames, employing encryption for password safety. Additionally, they can input preferences such as their language proficiency, enhancing their tailored experience.
We've considered various test cases encompassing phone numbers, email addresses, and age limitations—ensuring that individuals above 14 years old are the only ones allowed.



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 ║  *** WanderLift ***║                ---------'  .-.  '---------
 ╠══════════════════╣       _________________________'  '-'  '_________________________
 ║   1)Login          ║       ''''''-|---|--/    \==][^',_m_,'^][==/    \--|---|-''''''
 ║   2)Register       ║                     \    /  ||/   H   \||  \    /
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Enter your choice: 2
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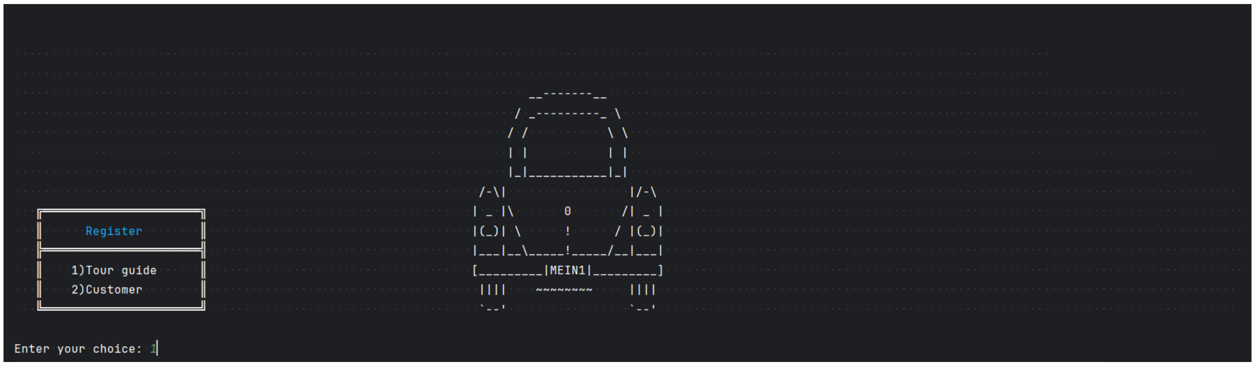

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 ║      Register      ║                    |(_)| \      !      / |(_)|
 ╠══════════════════╣                    |___|__\_____!_____/__|___|
 ║   1)Tour guide     ║                    [_________|MEIN1|_________]
 ║   2)Customer       ║                     ||||    ~~~~~~~~     ||||
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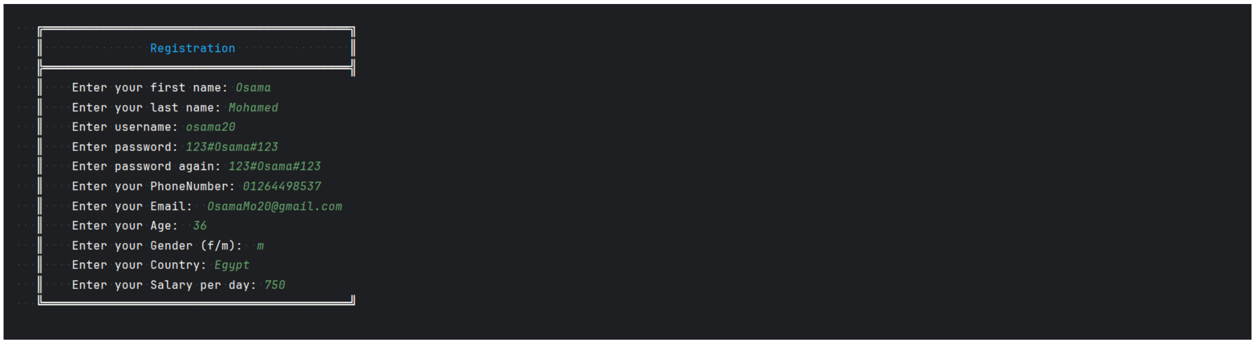
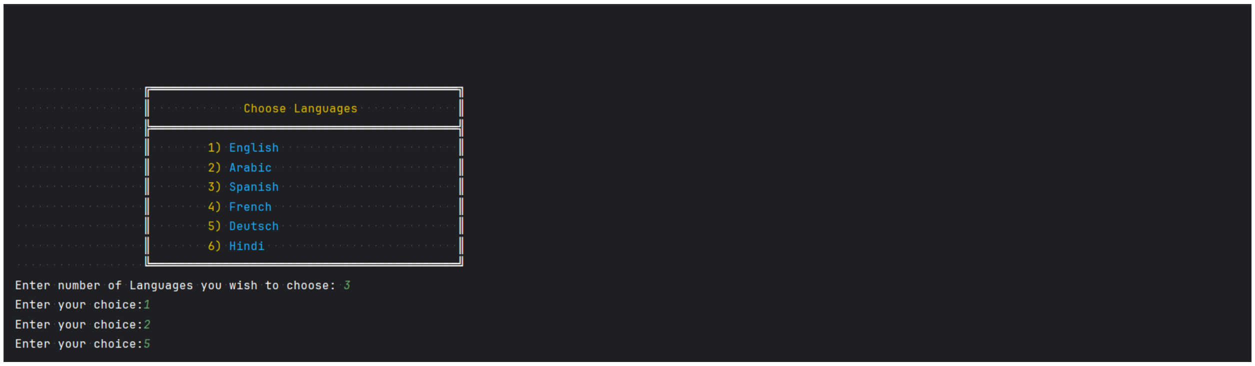
Enter your choice: 1
```



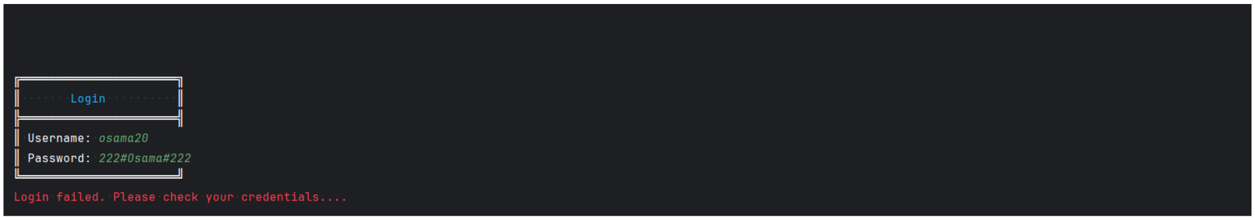
```
   ╔══════════════════════════════════════════╗
   ║              Registration                ║
   ╠══════════════════════════════════════════╣
   ║   Enter your first name: Osama
   ║   Enter your last name: Mohamed
   ║   Enter username: osama20
   ║   Enter password: 123#Osama#123
   ║   Enter password again: 123#Osama#123
   ║   Enter your PhoneNumber: 01264498537
   ║   Enter your Email:  OsamaMo20@gmail.com
   ║   Enter your Age:  36
   ║   Enter your Gender (f/m):  m
   ║   Enter your Country: Egypt
   ║   Enter your Salary per day: 750
   ╚══════════════════════════════════════════╝
```



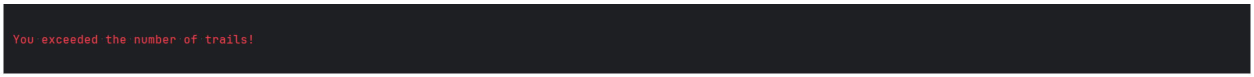
```
                  ╔══════════════════════════════════════════╗
                  ║             Choose Languages             ║
                  ╠══════════════════════════════════════════╣
                  ║       1) English                         ║
                  ║       2) Arabic                          ║
                  ║       3) Spanish                         ║
                  ║       4) French                          ║
                  ║       5) Deutsch                         ║
                  ║       6) Hindi                           ║
                  ╚══════════════════════════════════════════╝
Enter number of Languages you wish to choose: 3
Enter your choice:1
Enter your choice:2
Enter your choice:5
```

2.Login

Within this system, the tour guide can log in with access to specific options. Initially, three login attempts are allowed; upon failure, an alternative interface offers choices to register or reset the password.

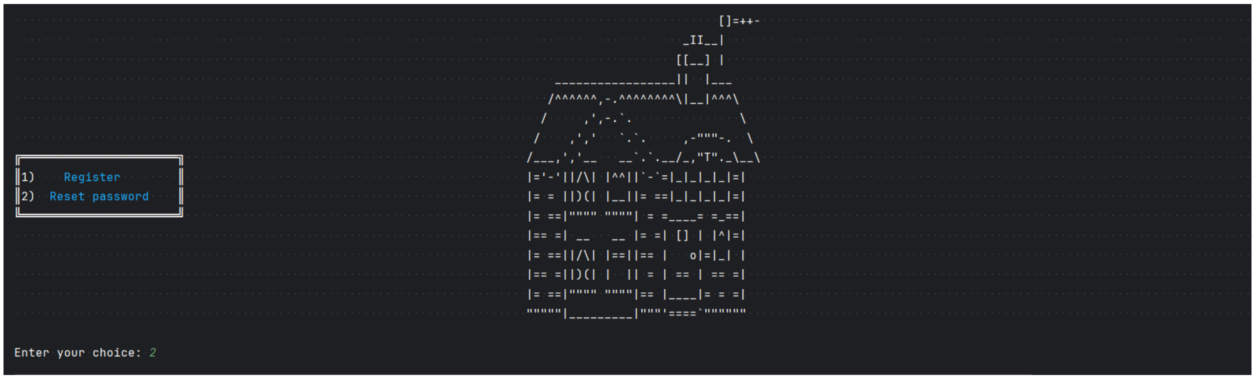


```
╔══════════════════════╗
║       Login          ║
╠══════════════════════╣
║ Username: osama20
║ Password: 222#Osama#222
╚══════════════════════╝
Login failed. Please check your credentials....
```



```
You exceeded the number of trails!
```

For password resets, providing the username is required; failure to find the username consecutively three times redirects to the registration process.



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╔══════════════════════╗                     /___,','__   __`.`.__/_,"T"._\__\
║1)    Register        ║                     |='-'||/\| |^^||`-`=|_|_|_|_|=|
║2)  Reset password    ║                     |= = ||)(| |__||= ==|_|_|_|_|=|
╚══════════════════════╝                     |= ==|""""" """""| = =____= =_==|
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                                             |== =||)(| |  || = | == | == =|
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                                             """"""|_________|""""'====`"""""""

Enter your choice: 2
```
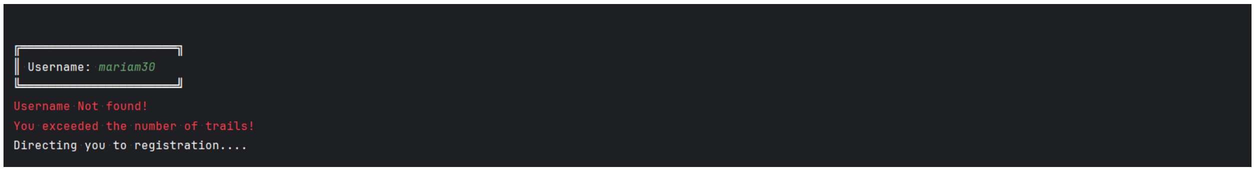
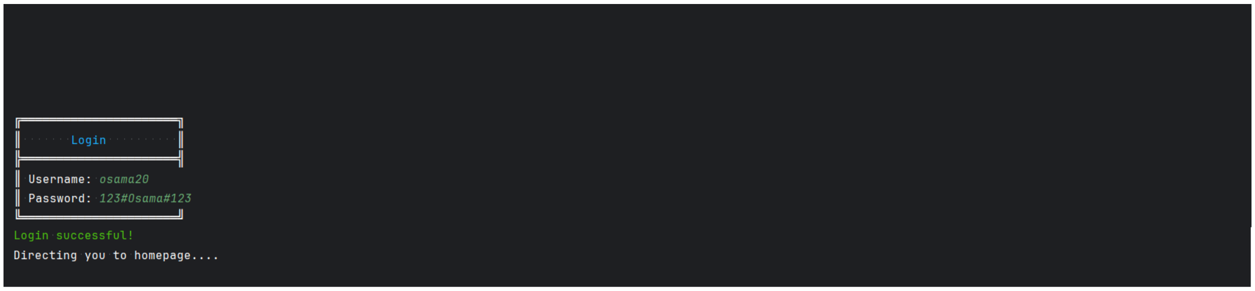



```
╔══════════════════════╗
║ Username: mariam30   ║
╚══════════════════════╝
Username Not found!
You exceeded the number of trails!
Directing you to registration....
```

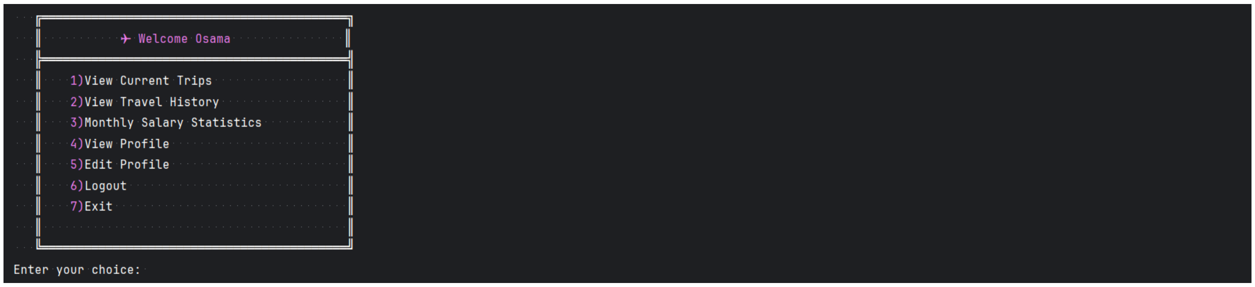
Finally, upon successful login, the view is accessible.



```
╔══════════════════════╗
║      Login           ║
╠══════════════════════╣
║ Username: osama20
║ Password: 123#Osama#123
╚══════════════════════╝
Login successful!
Directing you to homepage....
```

HomePage:

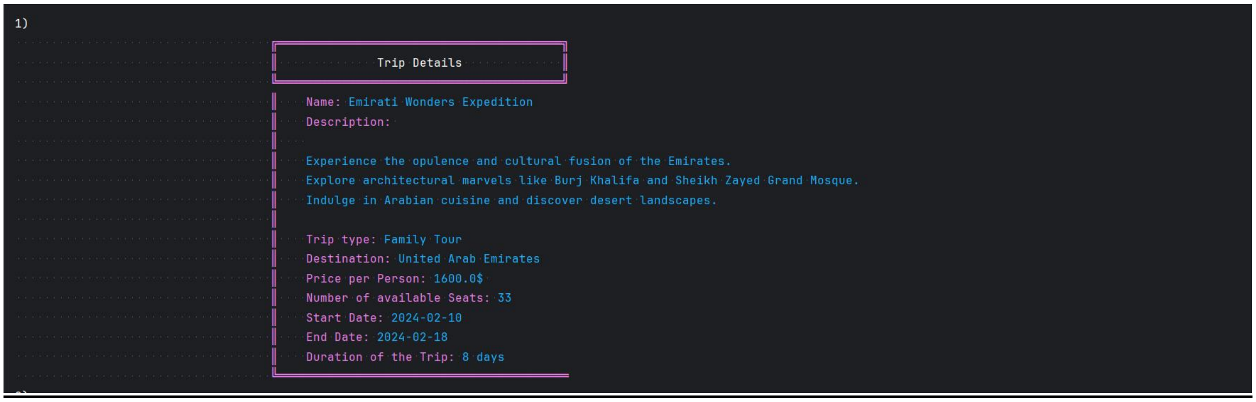
Here are the services our system provides for tour guides.



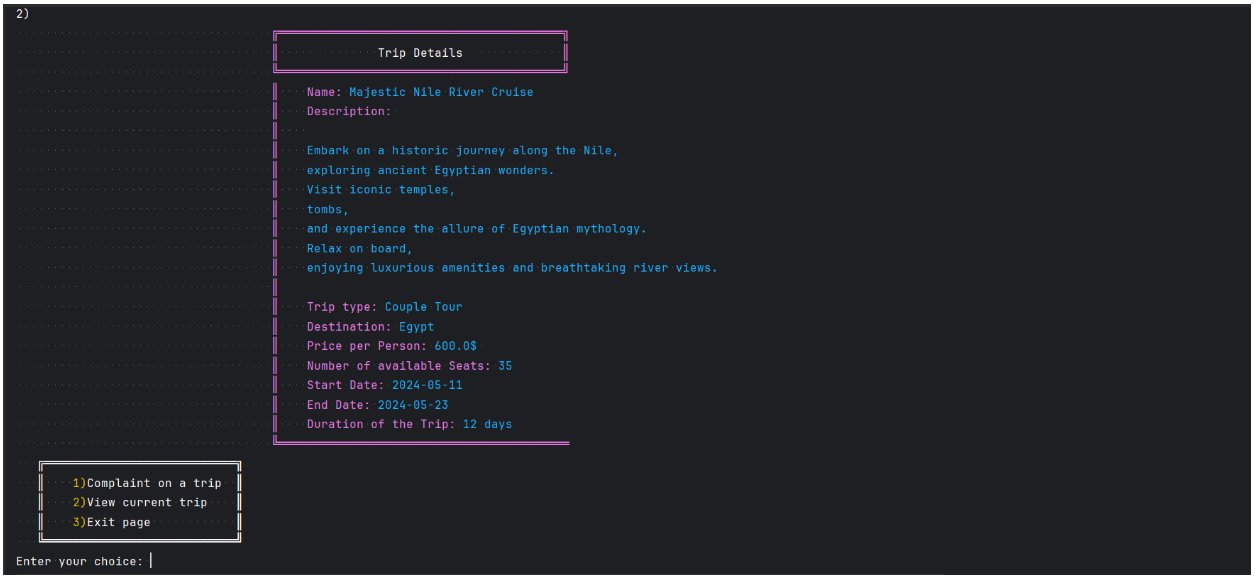
```
  ╔═════════════════════════════════════════╗
  ║          ✈ Welcome Osama                ║
  ╠═════════════════════════════════════════╣
  ║    1)View Current Trips                 ║
  ║    2)View Travel History                ║
  ║    3)Monthly Salary Statistics          ║
  ║    4)View Profile                       ║
  ║    5)Edit Profile                       ║
  ║    6)Logout                             ║
  ║    7)Exit                               ║
  ║                                         ║
  ╚═════════════════════════════════════════╝
Enter your choice:
```

3.View current trips

This function showcases upcoming trips in an ascending order by start date, providing two choices: to view the ongoing trip or to file a complaint about a specific trip. Any lodged complaint triggers a review by the manager, who can then assign a new tour guide to that particular trip.

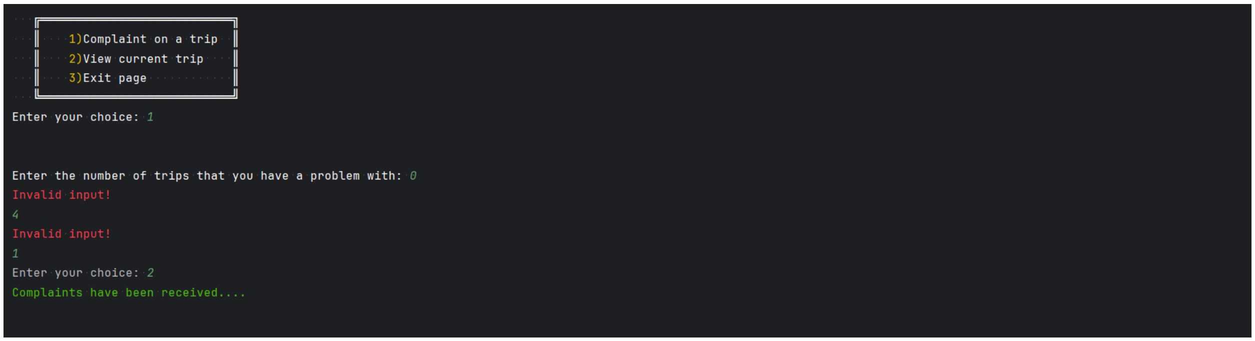


```
1)
                                    ╔═══════════════════════════════════╗
                                    ║            Trip Details           ║
                                    ╚═══════════════════════════════════╝
                                    ║   Name: Emirati Wonders Expedition
                                    ║   Description:
                                    ║
                                    ║   Experience the opulence and cultural fusion of the Emirates.
                                    ║   Explore architectural marvels like Burj Khalifa and Sheikh Zayed Grand Mosque.
                                    ║   Indulge in Arabian cuisine and discover desert landscapes.
                                    ║
                                    ║   Trip type: Family Tour
                                    ║   Destination: United Arab Emirates
                                    ║   Price per Person: 1600.0$
                                    ║   Number of available Seats: 33
                                    ║   Start Date: 2024-02-10
                                    ║   End Date: 2024-02-18
                                    ║   Duration of the Trip: 8 days
                                    ╚═══════════════════════════════════
```



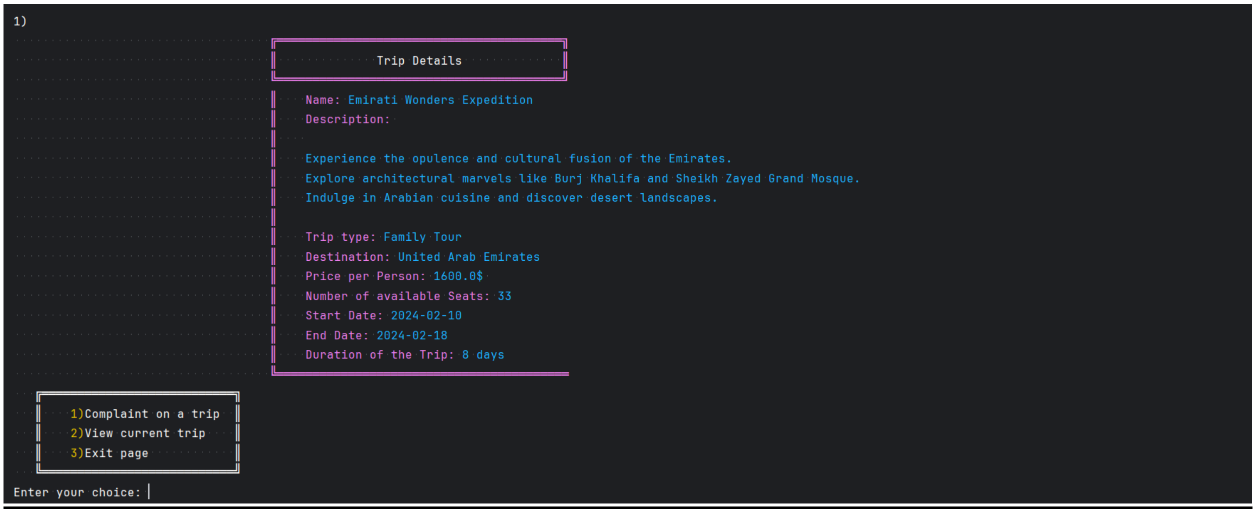
```
2)
                                    ╔═══════════════════════════════════╗
                                    ║            Trip Details           ║
                                    ╚═══════════════════════════════════╝
                                    ║   Name: Majestic Nile River Cruise
                                    ║   Description:
                                    ║
                                    ║   Embark on a historic journey along the Nile,
                                    ║   exploring ancient Egyptian wonders.
                                    ║   Visit iconic temples,
                                    ║   tombs,
                                    ║   and experience the allure of Egyptian mythology.
                                    ║   Relax on board,
                                    ║   enjoying luxurious amenities and breathtaking river views.
                                    ║
                                    ║   Trip type: Couple Tour
                                    ║   Destination: Egypt
                                    ║   Price per Person: 600.0$
                                    ║   Number of available Seats: 35
                                    ║   Start Date: 2024-05-11
                                    ║   End Date: 2024-05-23
                                    ║   Duration of the Trip: 12 days
                                    ╚═══════════════════════════════════

   ╔═══════════════════════════╗
   ║    1)Complaint on a trip  ║
   ║    2)View current trip    ║
   ║    3)Exit page            ║
   ╚═══════════════════════════╝
Enter your choice: 
```

A test case we considered,the user can only enter a number from the above list of trips.



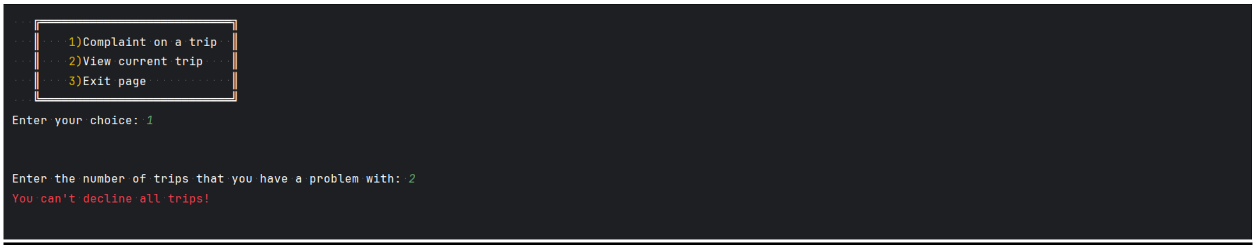
```
   ╔═══════════════════════════╗
   ║    1)Complaint on a trip  ║
   ║    2)View current trip    ║
   ║    3)Exit page            ║
   ╚═══════════════════════════╝
Enter your choice: 1


Enter the number of trips that you have a problem with: 0
Invalid input!
4
Invalid input!
1
Enter your choice: 2
Complaints have been received....
```

After filing a complaint on these trips, they are removed from the tour guides schedule of trips. The manager then assigns these trips to another available tourGuide.

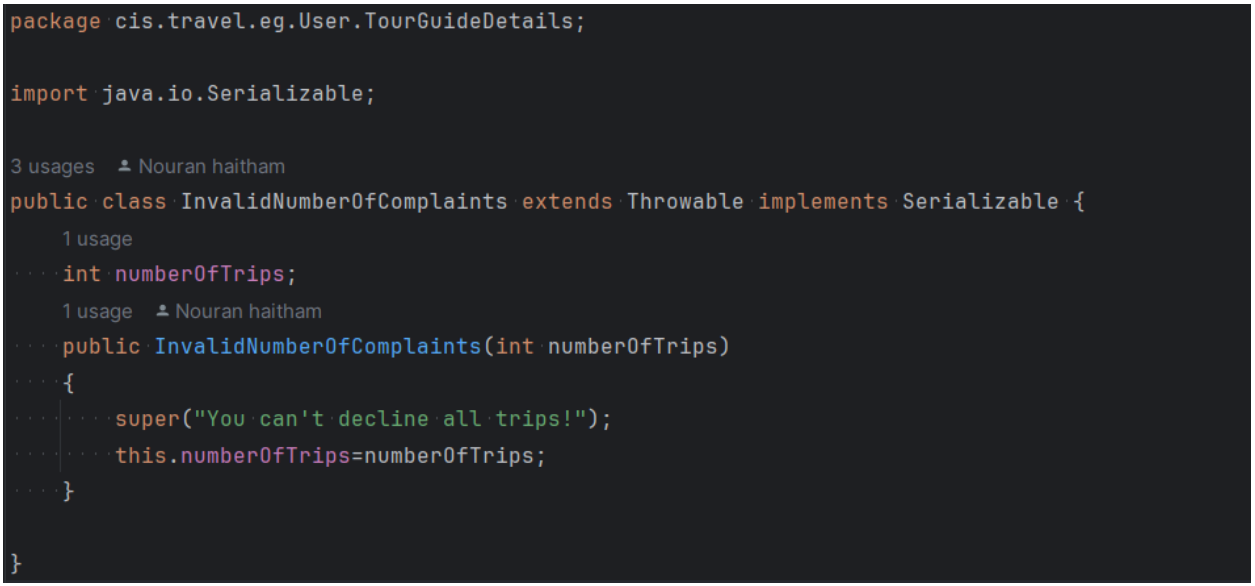


```
1)
                                    ╔═══════════════════════════════════════╗
                                    ║             Trip Details              ║
                                    ╚═══════════════════════════════════════╝
                                    ║   Name: Emirati Wonders Expedition
                                    ║   Description:
                                    ║
                                    ║   Experience the opulence and cultural fusion of the Emirates.
                                    ║   Explore architectural marvels like Burj Khalifa and Sheikh Zayed Grand Mosque.
                                    ║   Indulge in Arabian cuisine and discover desert landscapes.
                                    ║
                                    ║   Trip type: Family Tour
                                    ║   Destination: United Arab Emirates
                                    ║   Price per Person: 1600.0$
                                    ║   Number of available Seats: 33
                                    ║   Start Date: 2024-02-10
                                    ║   End Date: 2024-02-18
                                    ║   Duration of the Trip: 8 days
                                    ╚═══════════════════════════════════════

   ╔══════════════════════════╗
   ║    1)Complaint on a trip ║
   ║    2)View current trip   ║
   ║    3)Exit page           ║
   ╚══════════════════════════╝
Enter your choice: 
```

We've implemented a custom exception to prevent the tour guide from declining all manager-assigned trips. This exception, a checked type which extends from Throwable, ensures that the code won't compile without proper handling.

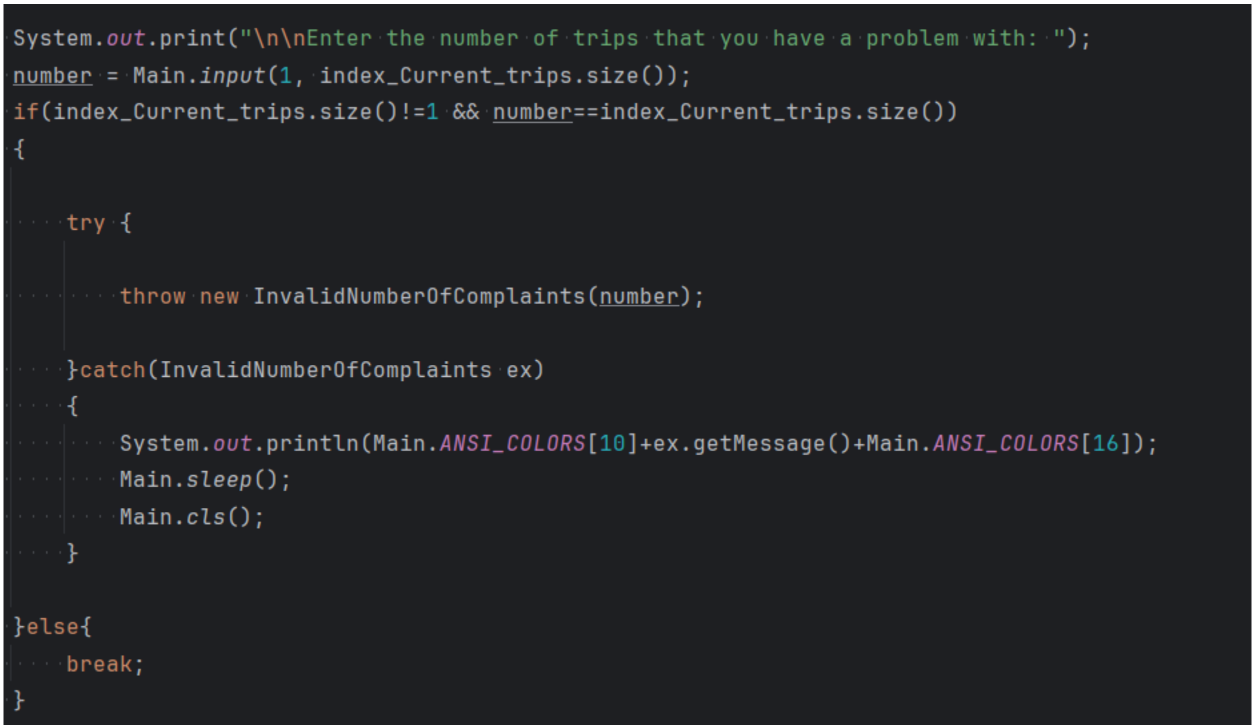


```
   ╔══════════════════════════╗
   ║    1)Complaint on a trip ║
   ║    2)View current trip   ║
   ║    3)Exit page           ║
   ╚══════════════════════════╝
Enter your choice: 1


Enter the number of trips that you have a problem with: 2
You can't decline all trips!
```



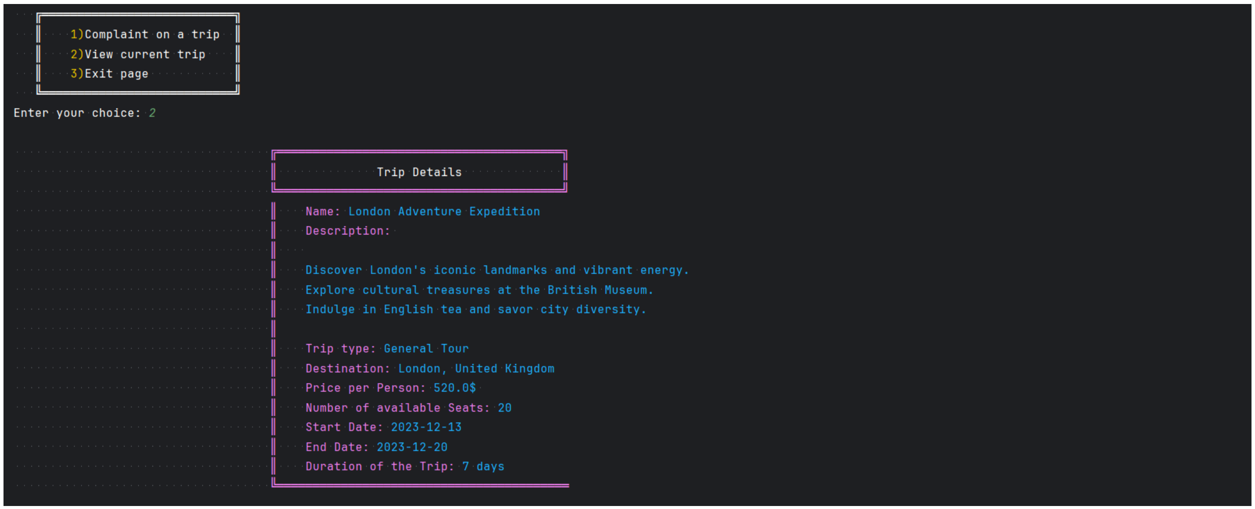
```java
package cis.travel.eg.User.TourGuideDetails;

import java.io.Serializable;

3 usages  Nouran haitham
public class InvalidNumberOfComplaints extends Throwable implements Serializable {
    1 usage
    int numberOfTrips;
    1 usage  Nouran haitham
    public InvalidNumberOfComplaints(int numberOfTrips)
    {
        super("You can't decline all trips!");
        this.numberOfTrips=numberOfTrips;
    }

}
```

Here is how we handled it with a try_catch block, an exception handling technique.



```java
System.out.print("\n\nEnter the number of trips that you have a problem with: ");
number = Main.input(1, index_Current_trips.size());
if(index_Current_trips.size()!=1 && number==index_Current_trips.size())
{

    try {

        throw new InvalidNumberOfComplaints(number);

    }catch(InvalidNumberOfComplaints ex)
    {
        System.out.println(Main.ANSI_COLORS[10]+ex.getMessage()+Main.ANSI_COLORS[16]);
        Main.sleep();
        Main.cls();
    }

}else{
    break;
}
```

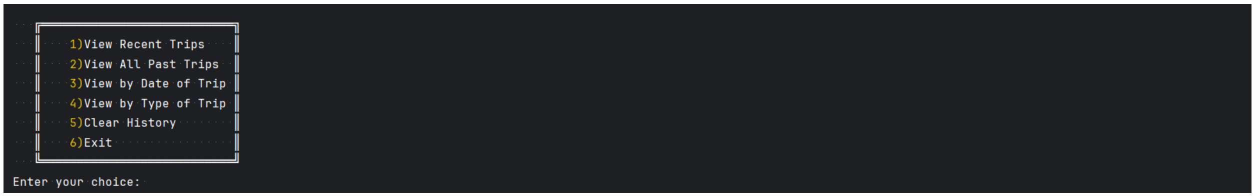
The system views the trip that is currently in progress.



```
    ╔════════════════════════╗
    ║    1)Complaint on a trip   ║
    ║    2)View current trip     ║
    ║    3)Exit page             ║
    ╚════════════════════════╝
Enter your choice: 2

                                    ╔═══════════════════════════════════╗
                                    ║            Trip Details             ║
                                    ╚═══════════════════════════════════╝
                                    ║   Name: London Adventure Expedition
                                    ║   Description:
                                    ║
                                    ║   Discover London's iconic landmarks and vibrant energy.
                                    ║   Explore cultural treasures at the British Museum.
                                    ║   Indulge in English tea and savor city diversity.
                                    ║
                                    ║   Trip type: General Tour
                                    ║   Destination: London, United Kingdom
                                    ║   Price per Person: 520.0$
                                    ║   Number of available Seats: 20
                                    ║   Start Date: 2023-12-13
                                    ║   End Date: 2023-12-20
                                    ║   Duration of the Trip: 7 days
                                    ╚═══════════════════════════════════
```

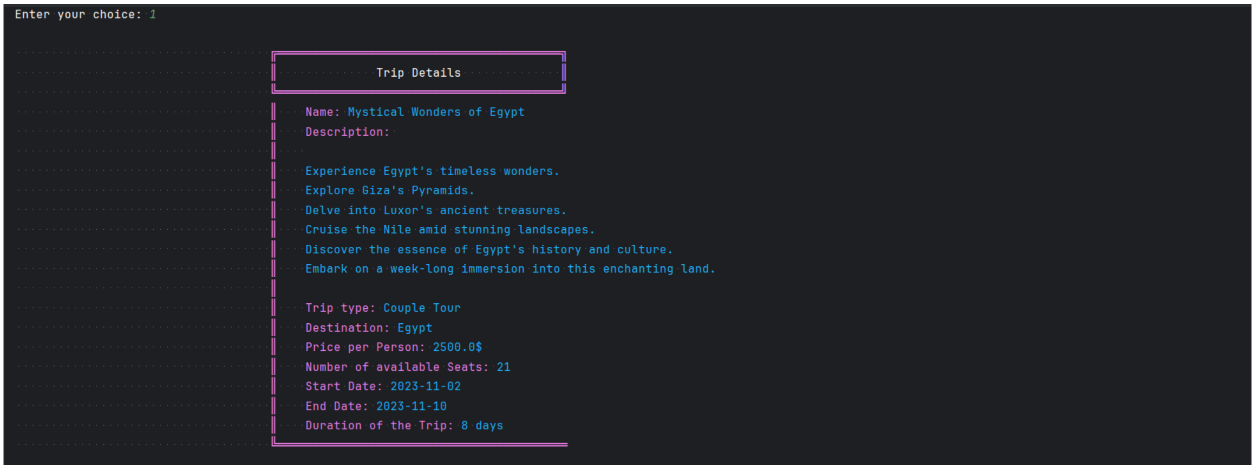
4.View travel history

The tour guide has versatile options to access past trips, whether viewing a few recent ones or the complete history, all sorted from the most recent to the oldest. Filtering by month, year, or type is available, and an additional choice allows clearing the entire trip history.

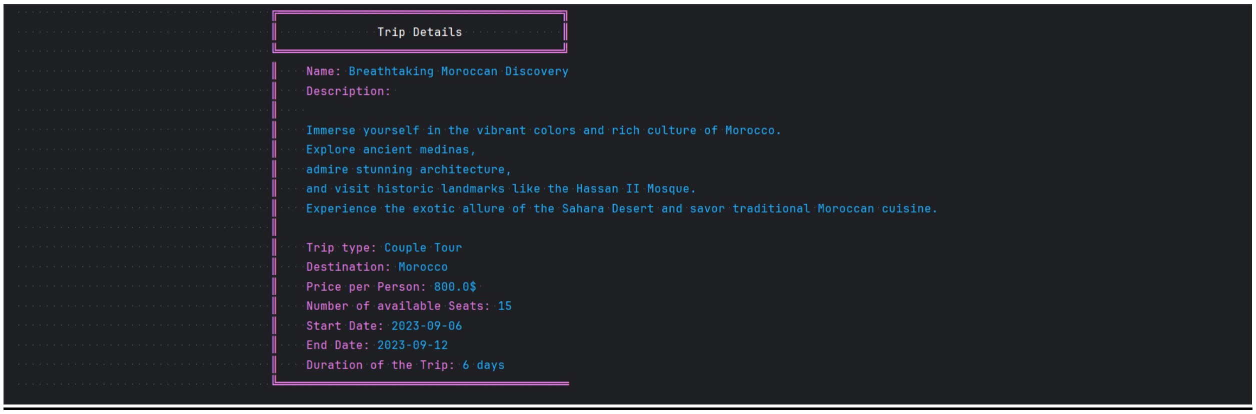


```
    ╔════════════════════════╗
    ║    1)View Recent Trips     ║
    ║    2)View All Past Trips   ║
    ║    3)View by Date of Trip  ║
    ║    4)View by Type of Trip  ║
    ║    5)Clear History         ║
    ║    6)Exit                  ║
    ╚════════════════════════╝
Enter your choice:
```

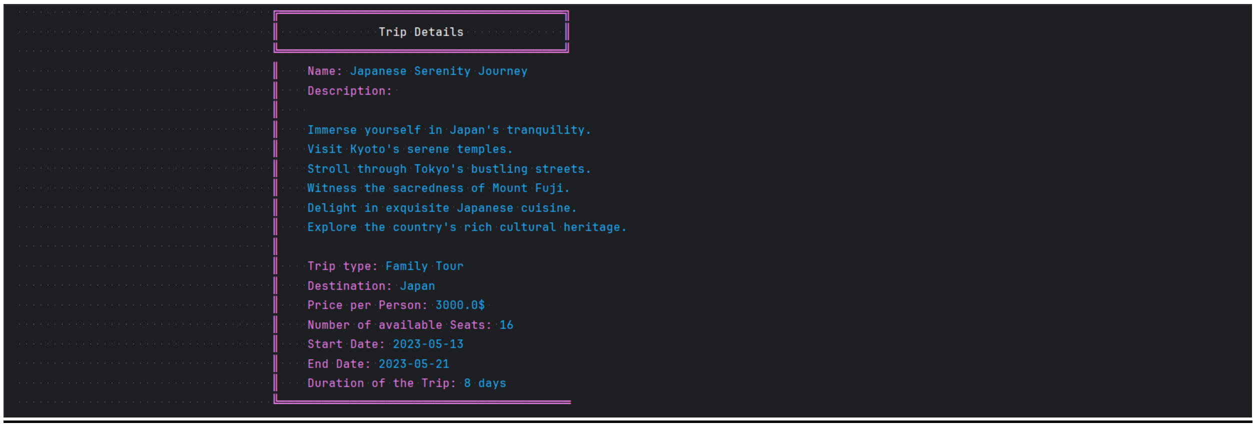
First option, view a couple of the trips that were recently made,from nearest to furthest.



```
Enter your choice: 1

                                    ╔═══════════════════════════════════╗
                                    ║            Trip Details             ║
                                    ╚═══════════════════════════════════╝
                                    ║   Name: Mystical Wonders of Egypt
                                    ║   Description:
                                    ║
                                    ║   Experience Egypt's timeless wonders.
                                    ║   Explore Giza's Pyramids.
                                    ║   Delve into Luxor's ancient treasures.
                                    ║   Cruise the Nile amid stunning landscapes.
                                    ║   Discover the essence of Egypt's history and culture.
                                    ║   Embark on a week-long immersion into this enchanting land.
                                    ║
                                    ║   Trip type: Couple Tour
                                    ║   Destination: Egypt
                                    ║   Price per Person: 2500.0$
                                    ║   Number of available Seats: 21
                                    ║   Start Date: 2023-11-02
                                    ║   End Date: 2023-11-10
                                    ║   Duration of the Trip: 8 days
                                    ╚═══════════════════════════════════
```

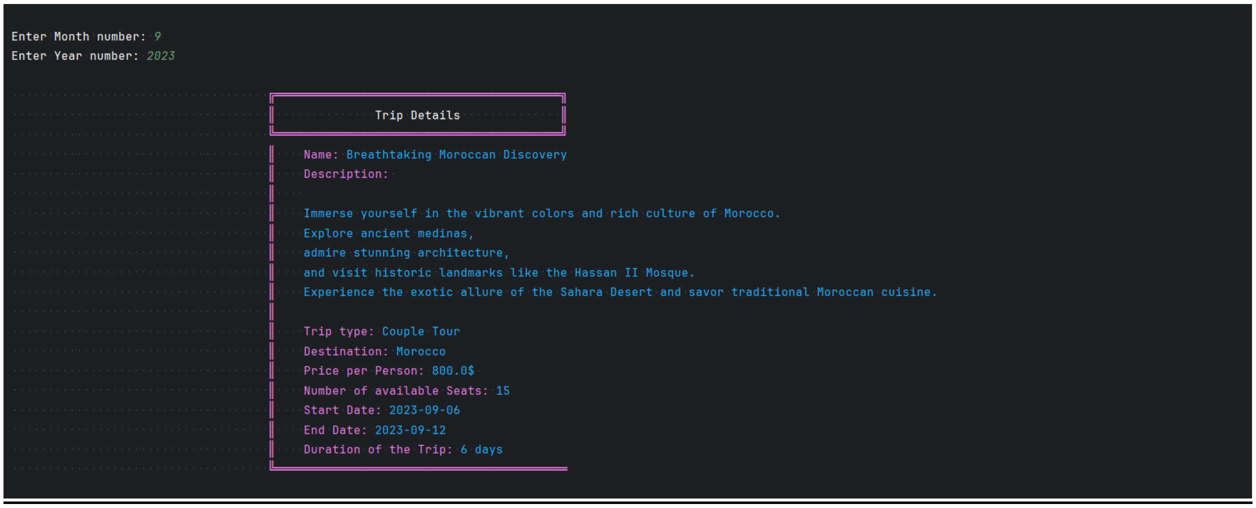


```
Trip Details

Name: Breathtaking Moroccan Discovery
Description:

Immerse yourself in the vibrant colors and rich culture of Morocco.
Explore ancient medinas,
admire stunning architecture,
and visit historic landmarks like the Hassan II Mosque.
Experience the exotic allure of the Sahara Desert and savor traditional Moroccan cuisine.

Trip type: Couple Tour
Destination: Morocco
Price per Person: 800.0$
Number of available Seats: 15
Start Date: 2023-09-06
End Date: 2023-09-12
Duration of the Trip: 6 days
```

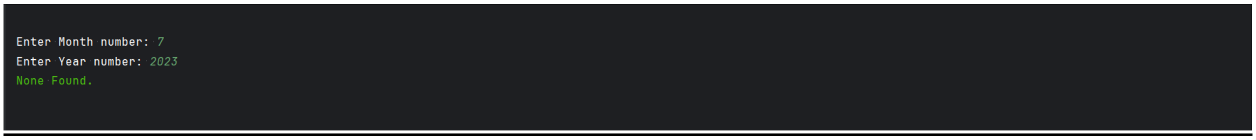


```
Trip Details

Name: Japanese Serenity Journey
Description:

Immerse yourself in Japan's tranquility.
Visit Kyoto's serene temples.
Stroll through Tokyo's bustling streets.
Witness the sacredness of Mount Fuji.
Delight in exquisite Japanese cuisine.
Explore the country's rich cultural heritage.

Trip type: Family Tour
Destination: Japan
Price per Person: 3000.0$
Number of available Seats: 16
Start Date: 2023-05-13
End Date: 2023-05-21
Duration of the Trip: 8 days
```

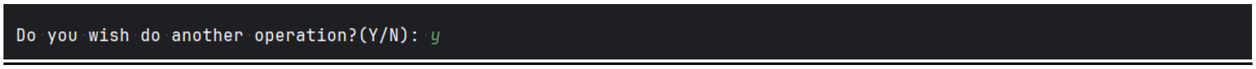
Second option,Filtration by month and year.



```
Enter Month number: 9
Enter Year number: 2023

Trip Details

Name: Breathtaking Moroccan Discovery
Description:

Immerse yourself in the vibrant colors and rich culture of Morocco.
Explore ancient medinas,
admire stunning architecture,
and visit historic landmarks like the Hassan II Mosque.
Experience the exotic allure of the Sahara Desert and savor traditional Moroccan cuisine.

Trip type: Couple Tour
Destination: Morocco
Price per Person: 800.0$
Number of available Seats: 15
Start Date: 2023-09-06
End Date: 2023-09-12
Duration of the Trip: 6 days
```

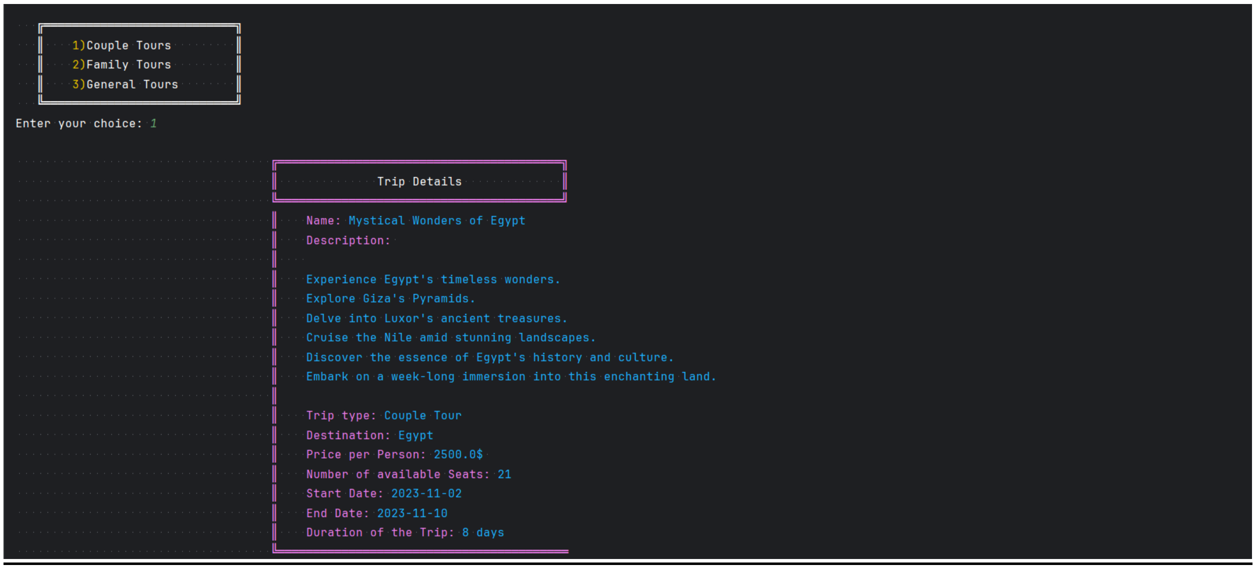


```
Enter Month number: 7
Enter Year number: 2023
None Found.
```



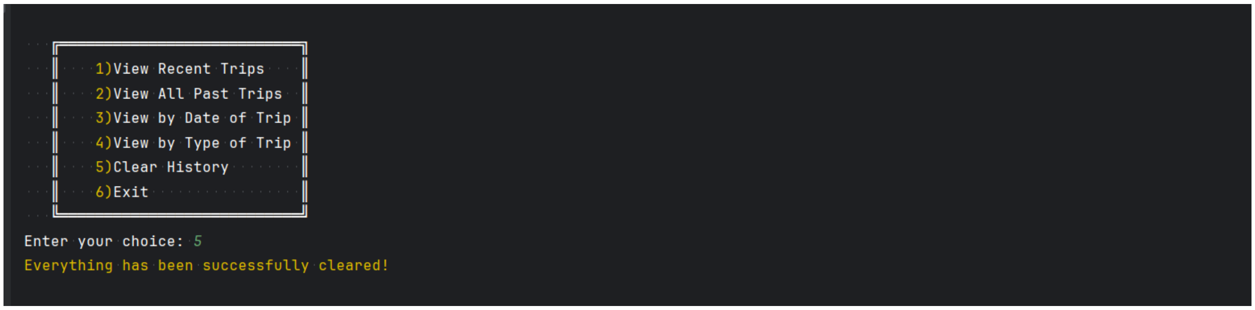
```
Do you wish do another operation?(Y/N): y
```

Third option,Filtration by type of trip.



```
    1)Couple Tours
    2)Family Tours
    3)General Tours

Enter your choice: 1

                                          Trip Details

                                      Name: Mystical Wonders of Egypt
                                      Description:

                                      Experience Egypt's timeless wonders.
                                      Explore Giza's Pyramids.
                                      Delve into Luxor's ancient treasures.
                                      Cruise the Nile amid stunning landscapes.
                                      Discover the essence of Egypt's history and culture.
                                      Embark on a week-long immersion into this enchanting land.

                                      Trip type: Couple Tour
                                      Destination: Egypt
                                      Price per Person: 2500.0$
                                      Number of available Seats: 21
                                      Start Date: 2023-11-02
                                      End Date: 2023-11-10
                                      Duration of the Trip: 8 days
```

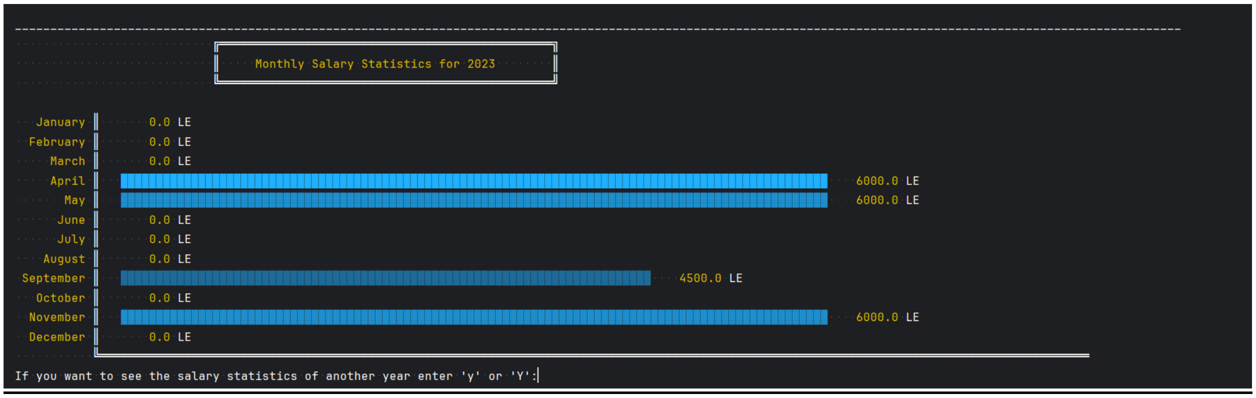
Fifth option, clears the history completely.



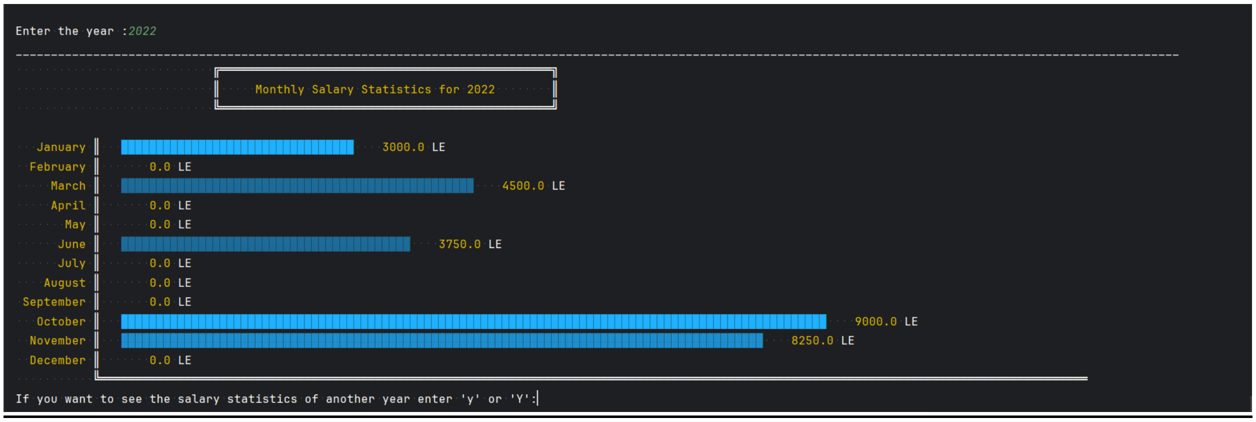
```
    1)View Recent Trips
    2)View All Past Trips
    3)View by Date of Trip
    4)View by Type of Trip
    5)Clear History
    6)Exit

Enter your choice: 5
Everything has been successfully cleared!
```

5.Monthly salary statistics

This feature offers the tour guide a comprehensive monthly salary breakdown for a year. Visualized through a bar graph, it displays the months of the year on the x-axis, showcasing the total salary earned by the guide for each corresponding month on the y-axis.They are allowed to view any former years statistics this way.

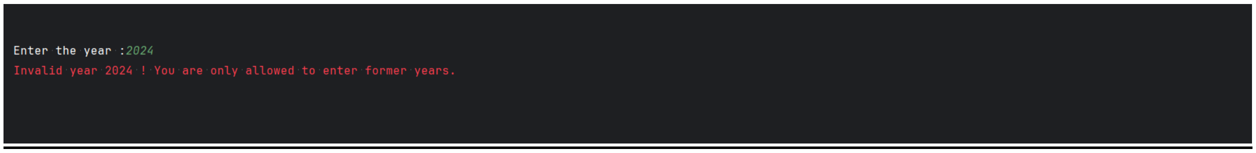


```
------------------------------------------------------------------------------------------------------------------------

                              Monthly Salary Statistics for 2023

  January |     0.0 LE
 February |     0.0 LE
    March |     0.0 LE
    April | ████████████████████████████████████████████████████████████████████████████████████████████████████   6000.0 LE
      May | ████████████████████████████████████████████████████████████████████████████████████████████████████   6000.0 LE
     June |     0.0 LE
     July |     0.0 LE
   August |     0.0 LE
September | ███████████████████████████████████████████████████████████████████████████   4500.0 LE
  October |     0.0 LE
 November | ████████████████████████████████████████████████████████████████████████████████████████████████████   6000.0 LE
 December |     0.0 LE

If you want to see the salary statistics of another year enter 'y' or 'Y':
```



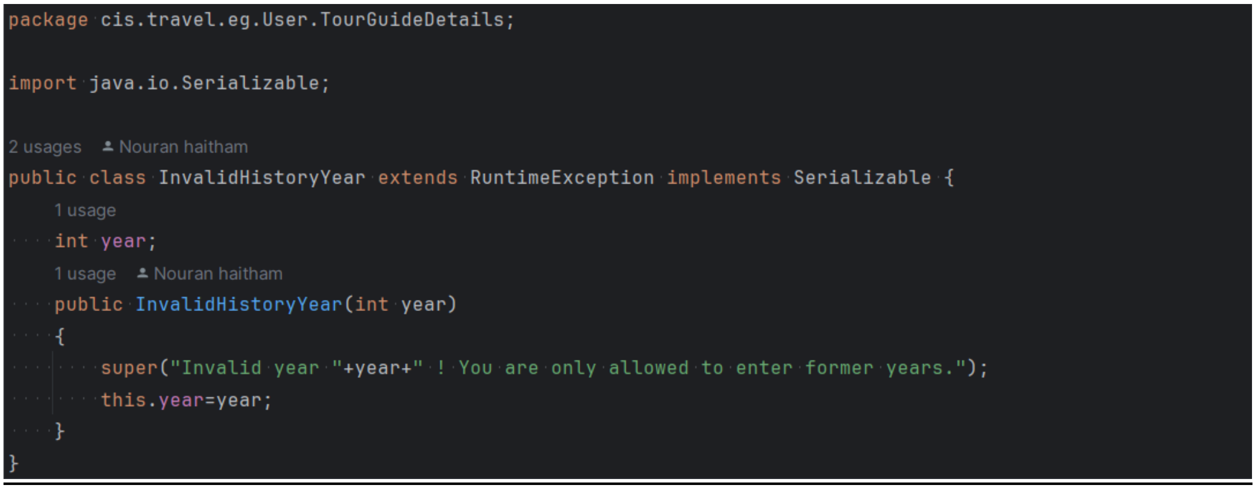
```
Enter the year :2022
---------------------------------------------------------------------------------------------------------------------------------------------------
                            ╔══════════════════════════════════════════╗
                            ║    Monthly Salary Statistics for 2022    ║
                            ╚══════════════════════════════════════════╝

   January ║   ██████████████████████████████   3000.0 LE
  February ║      0.0 LE
     March ║   █████████████████████████████████████████████   4500.0 LE
     April ║      0.0 LE
       May ║      0.0 LE
      June ║   █████████████████████████████████████   3750.0 LE
      July ║      0.0 LE
    August ║      0.0 LE
 September ║      0.0 LE
   October ║   ██████████████████████████████████████████████████████████████████████████████████████████   9000.0 LE
  November ║   ██████████████████████████████████████████████████████████████████████████████████   8250.0 LE
  December ║      0.0 LE
           ╚═══════════════════════════════════════════════════════════════════════════════════════════════════════════
If you want to see the salary statistics of another year enter 'y' or 'Y':
```

A custom exception is implemented to handle cases where the user attempts to input upcoming years



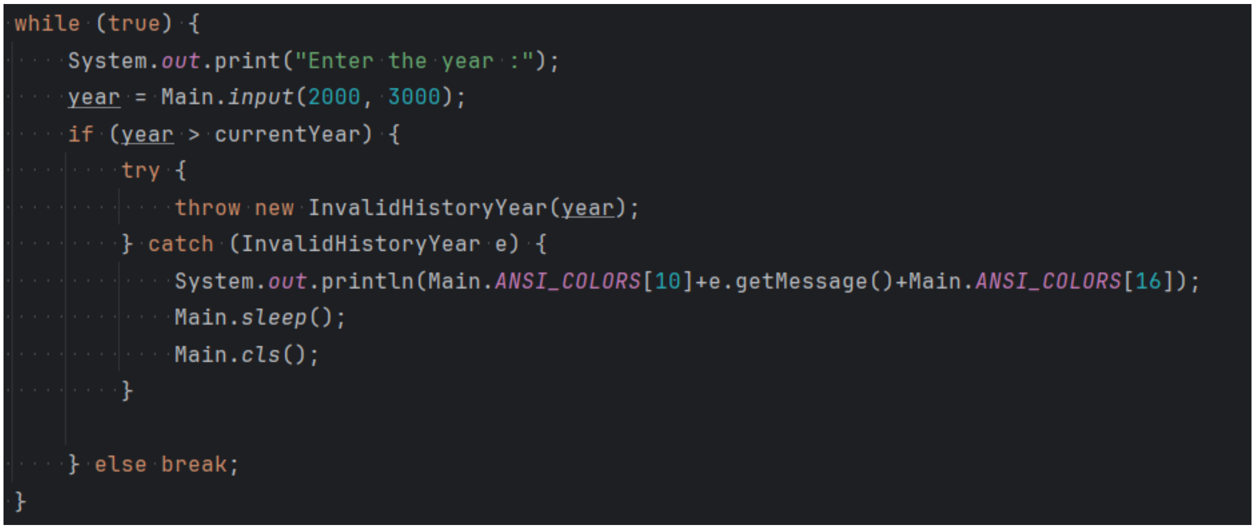
```
Enter the year :2024
Invalid year 2024 ! You are only allowed to enter former years.
```

An unchecked exception named InvalidHistoryYear, extending the RuntimeException class, demonstrates its nature as an unchecked exception.



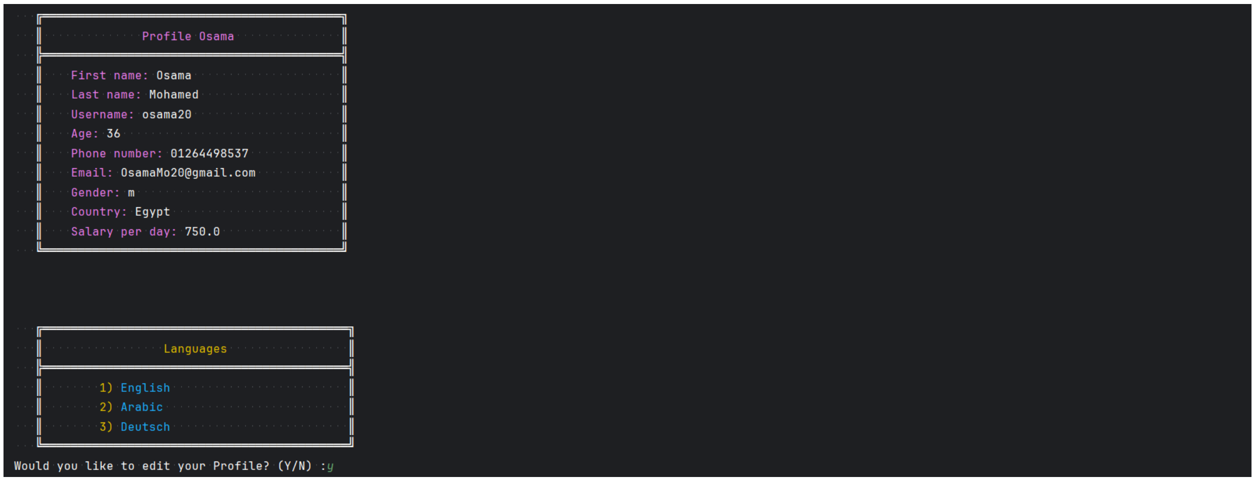
```java
package cis.travel.eg.User.TourGuideDetails;

import java.io.Serializable;

2 usages   Nouran haitham
public class InvalidHistoryYear extends RuntimeException implements Serializable {
    1 usage
    int year;
    1 usage   Nouran haitham
    public InvalidHistoryYear(int year)
    {
        super("Invalid year "+year+" ! You are only allowed to enter former years.");
        this.year=year;
    }
}
```

Here is how we handled it with a try_catch block, an exception handling technique.



```
while (true) {
    System.out.print("Enter the year :");
    year = Main.input(2000, 3000);
    if (year > currentYear) {
        try {
            throw new InvalidHistoryYear(year);
        } catch (InvalidHistoryYear e) {
            System.out.println(Main.ANSI_COLORS[10]+e.getMessage()+Main.ANSI_COLORS[16]);
            Main.sleep();
            Main.cls();
        }

    } else break;
}
```

6.View profile

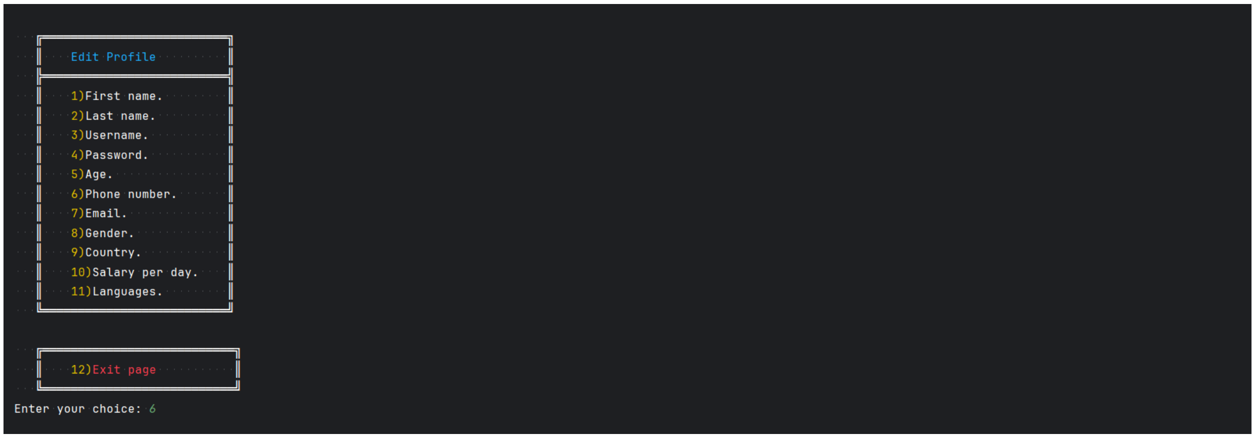


```
   ╔═════════════════════════════════════════╗
   ║              Profile Osama              ║
   ╠═════════════════════════════════════════╣
   ║    First name: Osama                    ║
   ║    Last name: Mohamed                   ║
   ║    Username: osama20                    ║
   ║    Age: 36                              ║
   ║    Phone number: 01264498537            ║
   ║    Email: OsamaMo20@gmail.com           ║
   ║    Gender: m                            ║
   ║    Country: Egypt                       ║
   ║    Salary per day: 750.0                ║
   ╚═════════════════════════════════════════╝



   ╔══════════════════════════════════════════╗
   ║                Languages                 ║
   ╠══════════════════════════════════════════╣
   ║        1) English                        ║
   ║        2) Arabic                         ║
   ║        3) Deutsch                        ║
   ╚══════════════════════════════════════════╝
Would you like to edit your Profile? (Y/N) :y
```

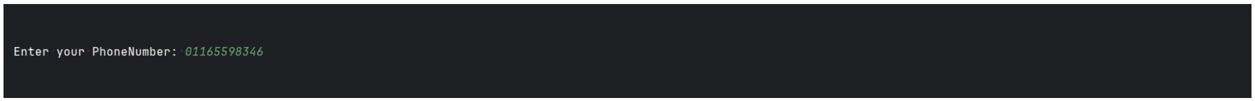
The tour guide has access to all profile details, excluding the encrypted password. However, they have the option to reset it if needed. Additionally, while viewing their profile, we prompt the tour guide if they wish to make edits directly, enhancing user convenience by eliminating the need to navigate back to the homepage

7.Edit profile

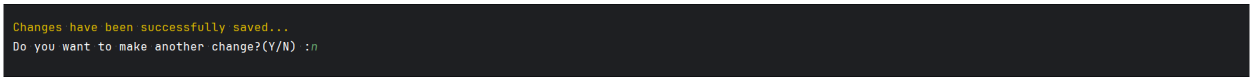
The tour guide is granted permission to update any available field. Upon saving the changes, we inquire whether there are any further edits they'd like to make.



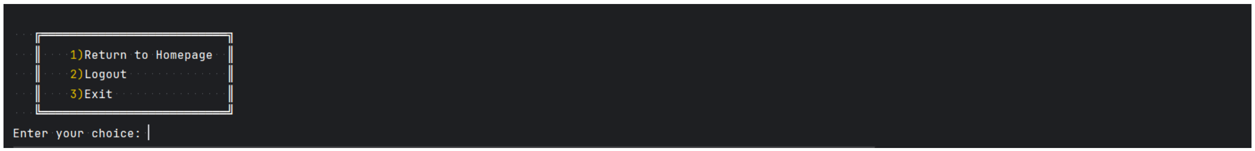
```
   ╔══════════════════════╗
   ║    Edit Profile      ║
   ╠══════════════════════╣
   ║    1)First name.     ║
   ║    2)Last name.      ║
   ║    3)Username.       ║
   ║    4)Password.       ║
   ║    5)Age.            ║
   ║    6)Phone number.   ║
   ║    7)Email.          ║
   ║    8)Gender.         ║
   ║    9)Country.        ║
   ║    10)Salary per day.║
   ║    11)Languages.     ║
   ╚══════════════════════╝

   ╔═══════════════════════╗
   ║    12)Exit page       ║
   ╚═══════════════════════╝
Enter your choice: 6
```



```
Enter your PhoneNumber: 01165598346
```



```
Changes have been successfully saved...
Do you want to make another change?(Y/N) :n
```



```
   ╔══════════════════════╗
   ║    1)Return to Homepage
   ║    2)Logout          ║
   ║    3)Exit            ║
   ╚══════════════════════╝
Enter your choice:
```

Lastly,The tour guide has the option to either log out from the application or exit it entirely.

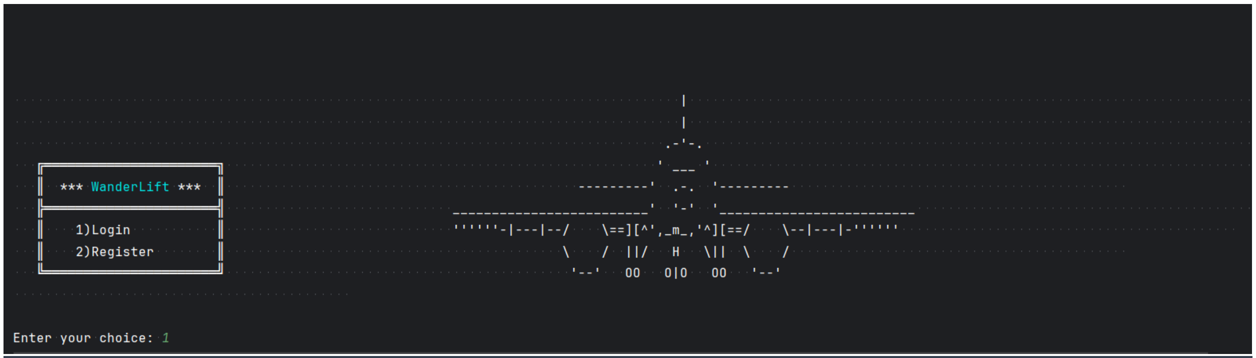
Admin Interface

The admin, as the company's IT hub, oversees all accounts' management and visibility, including managers, tour guides, and customers. They handle account operations—additions, removals, and displays—alongside creating accounts per client service requests. However, direct registration is restricted; while they lack direct interaction rights, the admin can create new admin and manager accounts.

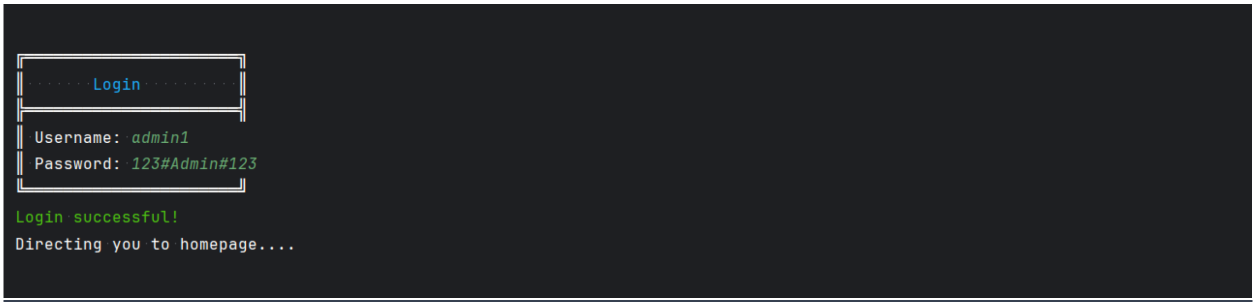
Functionalities:

1.Login

Admins can solely access the system via login credentials; however, registration must be facilitated by another admin to create their account, as stated previously.



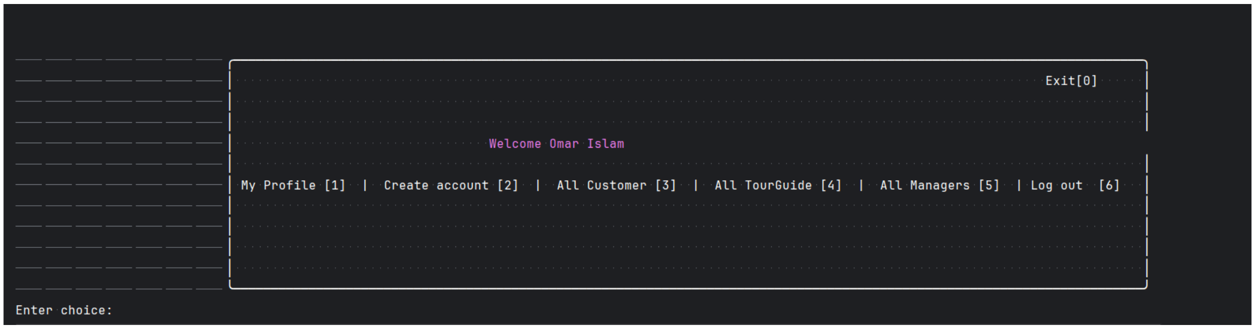
```
                                                                              |
                                                                              |
                                                                            .-'-.
   ╔════════════════════╗                                                  ' ___ '
   ║ *** WanderLift *** ║                                         ---------'  .-.  '---------
   ╠════════════════════╣                          _______________________'  '-'  '_______________________
   ║    1)Login         ║                          ''''''-|---|--/    \==][^',_m_,'^][==/    \--|---|-''''''
   ║    2)Register      ║                                       \    /  ||/   H   \||  \    /
   ╚════════════════════╝                                        '--'   OO   O|O   OO   '--'

Enter your choice: 1
```



```
╔══════════════════════════╗
║        Login             ║
╠══════════════════════════╣
║ Username: admin1
║ Password: 123#Admin#123
╚══════════════════════════╝
Login successful!
Directing you to homepage....
```

Homepage:

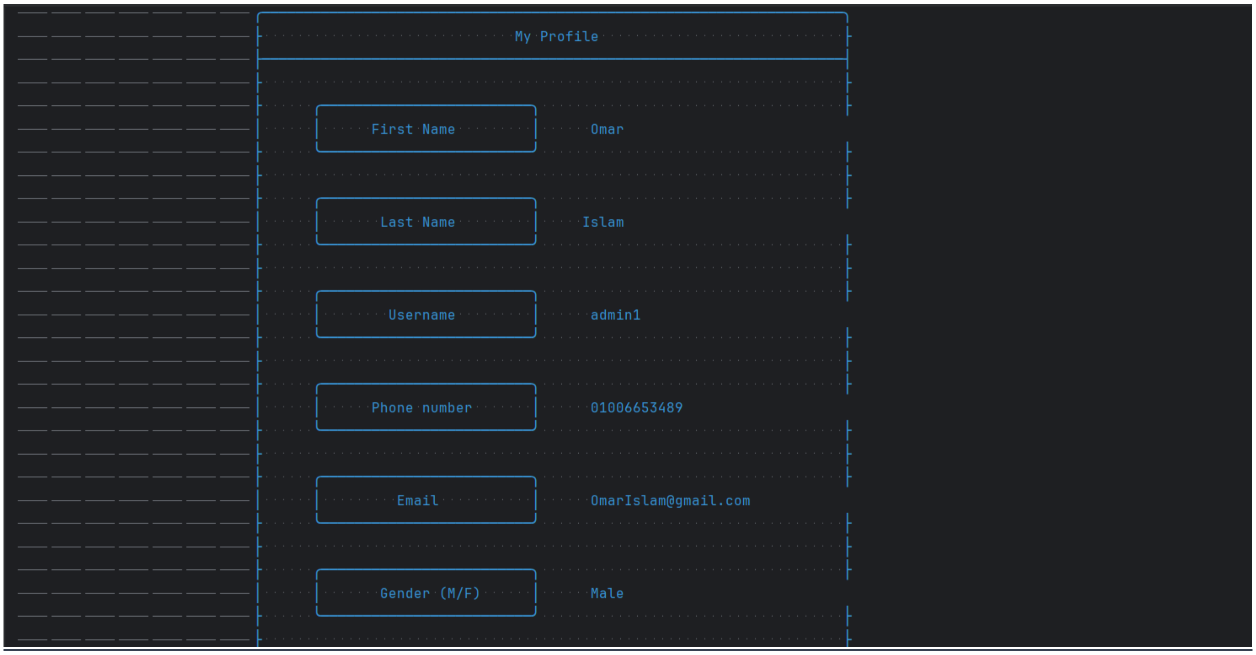
Here are the services our system provides for Admins.



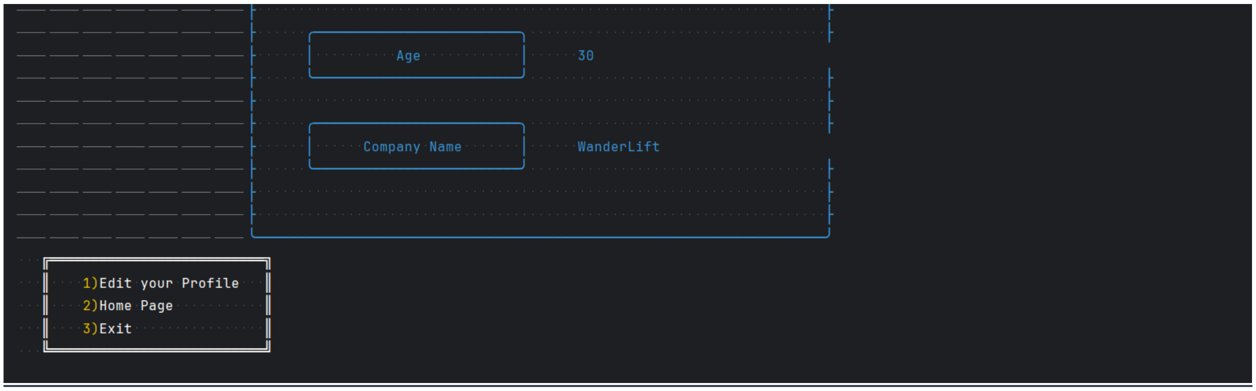
```
                                                                          Exit[0]

                         Welcome Omar Islam

My Profile [1]  |  Create account [2]  |  All Customer [3]  |  All TourGuide [4]  |  All Managers [5]  | Log out  [6]

Enter choice:
```

2.My profile

He has access to view all profile details except for the encrypted password, yet he retains the privilege to edit the information.Then, we ask him if he would like to Edit his profile without the need to go back to his homepage.

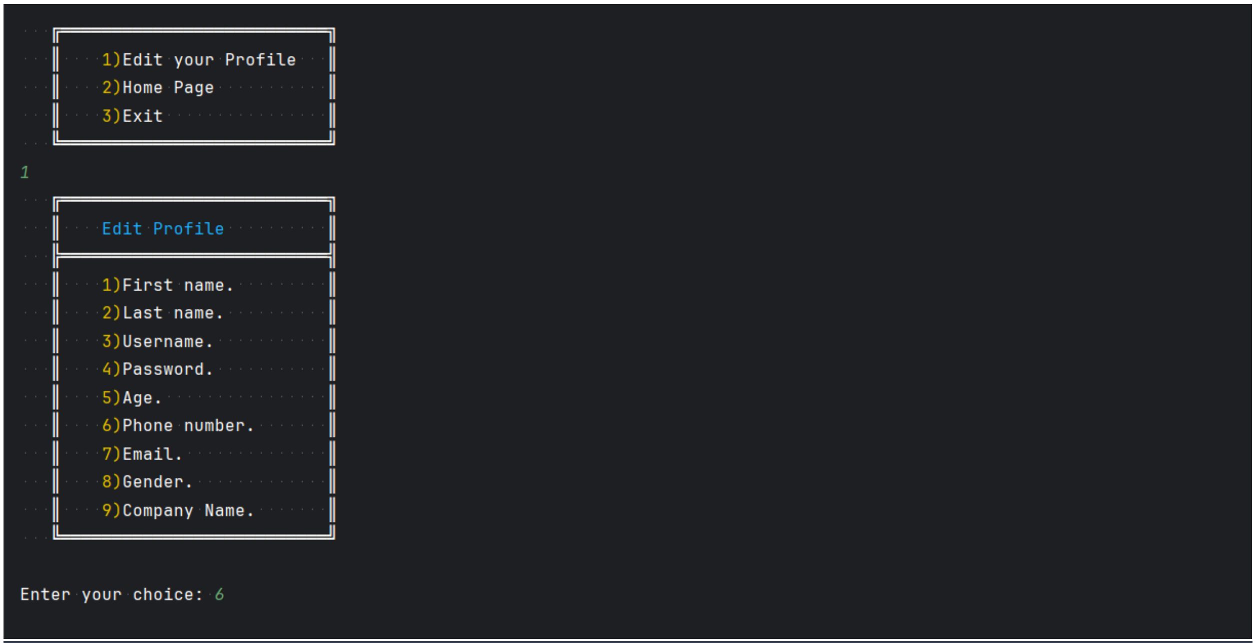


```
                    My Profile

      First Name        Omar

      Last Name         Islam

      Username          admin1

      Phone number      01006653489

      Email             OmarIslam@gmail.com

      Gender (M/F)      Male
```

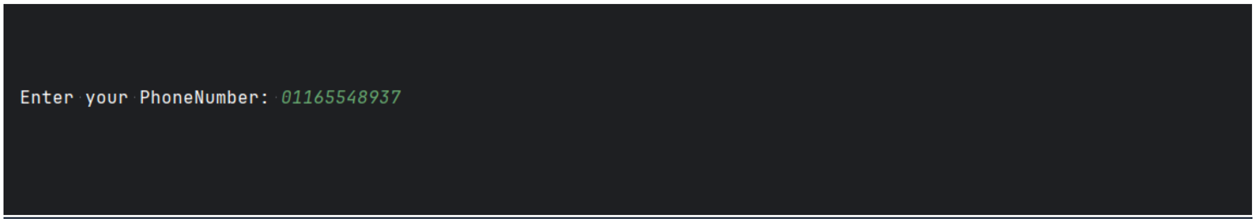


```
      Age               30

      Company Name      WanderLift

1)Edit your Profile
2)Home Page
3)Exit
```

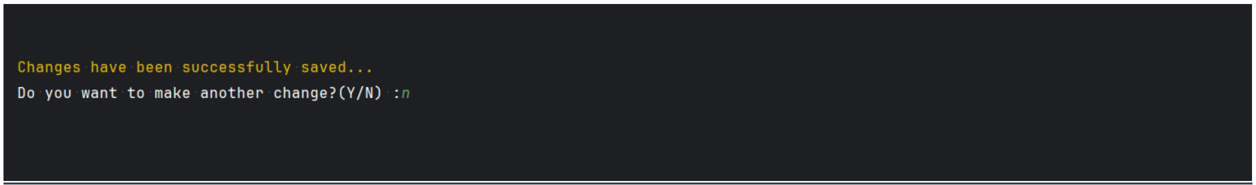
The Admin is granted permission to update any available field. Upon saving the changes, we inquire whether there are any further edits they'd like to make.Putting in mind all possible test cases of invalid inputs in phone number, email,gender…etc. Furthermore, we made sure that the username if edited must be unique.



```
    ╔══════════════════════════╗
    ║    1)Edit your Profile   ║
    ║    2)Home Page           ║
    ║    3)Exit                ║
    ╚══════════════════════════╝
1
    ╔══════════════════════════╗
    ║    Edit Profile          ║
    ╠══════════════════════════╣
    ║    1)First name.         ║
    ║    2)Last name.          ║
    ║    3)Username.           ║
    ║    4)Password.           ║
    ║    5)Age.                ║
    ║    6)Phone number.       ║
    ║    7)Email.              ║
    ║    8)Gender.             ║
    ║    9)Company Name.       ║
    ╚══════════════════════════╝

Enter your choice: 6
```

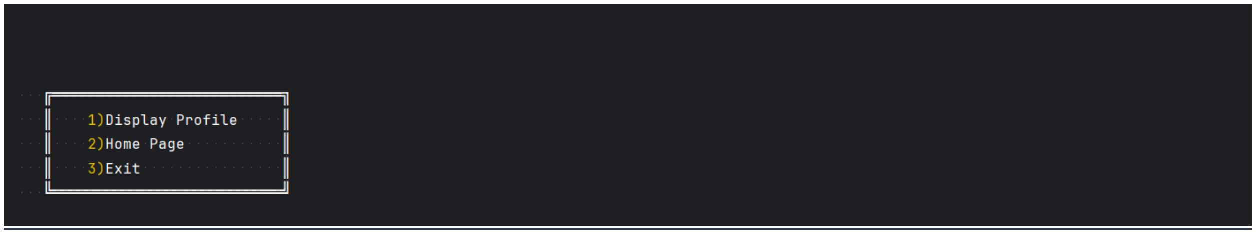


```
Enter your PhoneNumber: 01165548937
```



```
Changes have been successfully saved...
Do you want to make another change?(Y/N) :n
```

Upon saving the changes, we ask the admin if he would like to display his profile again or go back to his homepage.

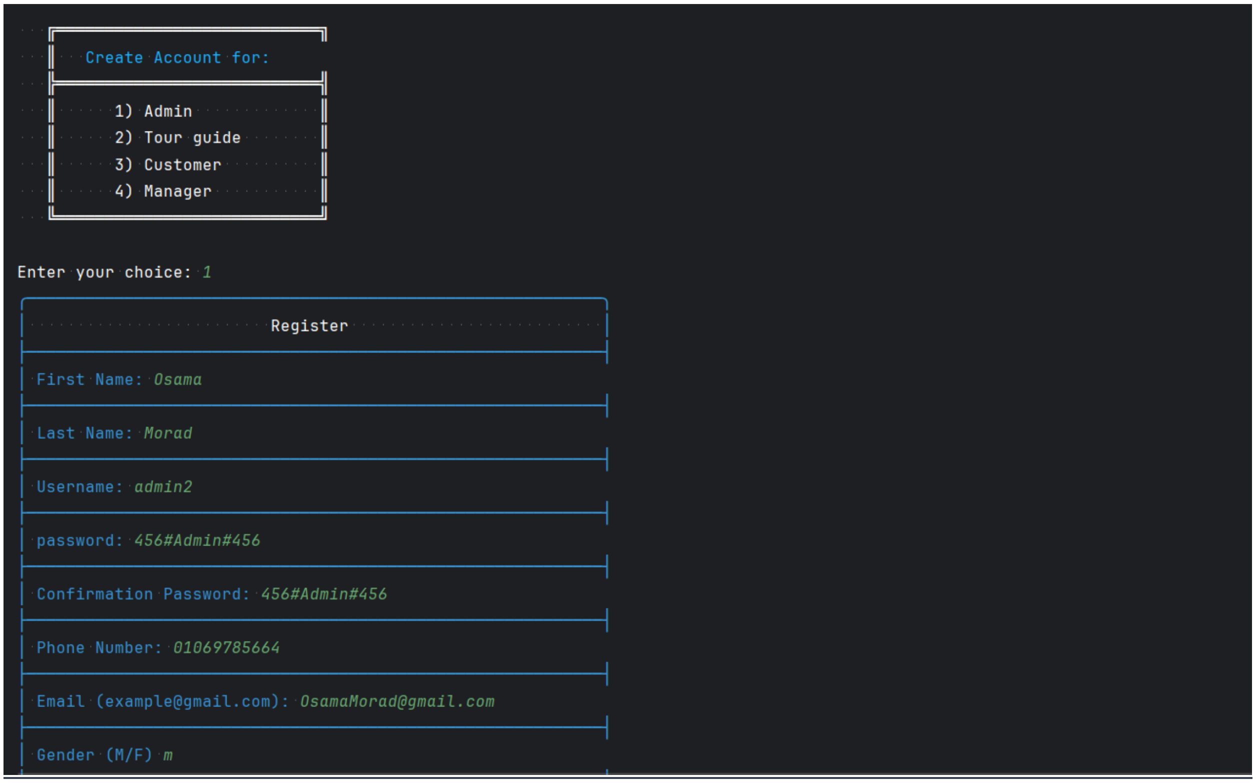


```
╔══════════════════════╗
║    1)Display Profile ║
║    2)Home Page       ║
║    3)Exit            ║
╚══════════════════════╝
```

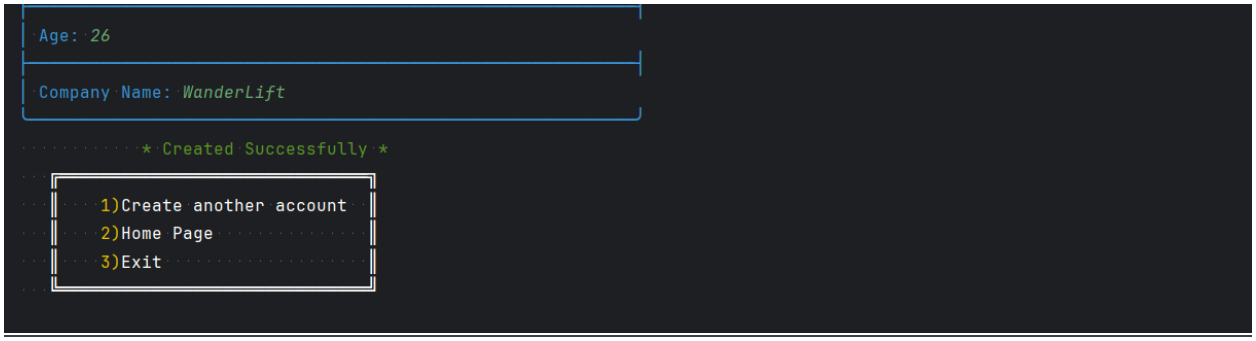
3.Create account

The primary responsibility of the admin is to generate user accounts for Customers, Tour Guides, and Managers.It is noteworthy to say that, only an admin possesses the authority to establish new admin or manager accounts within our system.

Here, he creates an account for another admin.

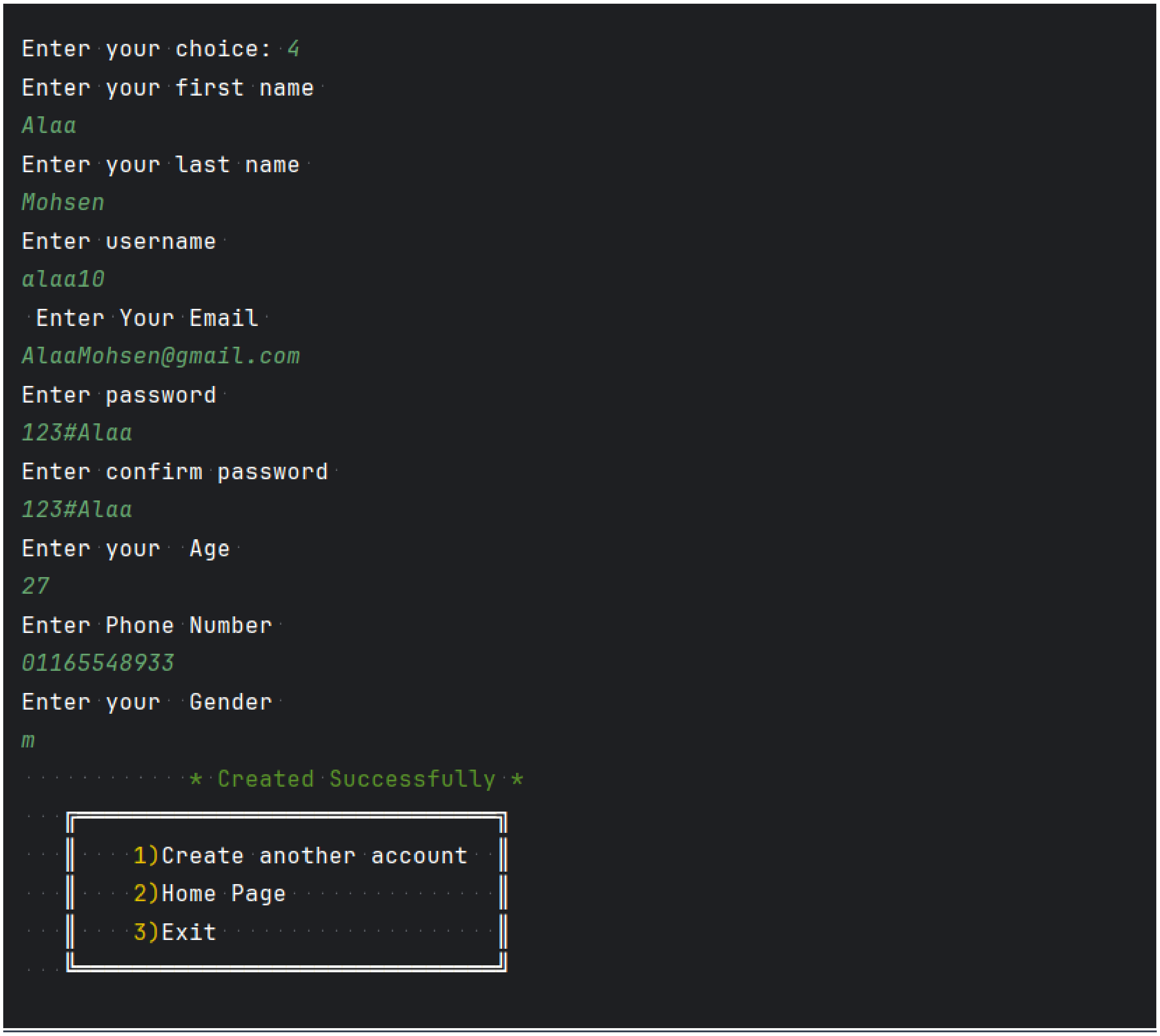


```
   ╔════════════════════════════╗
   ║  Create Account for:
   ╠════════════════════════════╣
   ║     1) Admin               ║
   ║     2) Tour guide          ║
   ║     3) Customer            ║
   ║     4) Manager             ║
   ╚════════════════════════════╝

Enter your choice: 1
┌──────────────────────────────────────────────────────────────┐
│                         Register                             │
├──────────────────────────────────────────────────────────────┤
│ First Name: Osama
├──────────────────────────────────────────────────────────────┤
│ Last Name: Morad
├──────────────────────────────────────────────────────────────┤
│ Username: admin2
├──────────────────────────────────────────────────────────────┤
│ password: 456#Admin#456
├──────────────────────────────────────────────────────────────┤
│ Confirmation Password: 456#Admin#456
├──────────────────────────────────────────────────────────────┤
│ Phone Number: 01069785664
├──────────────────────────────────────────────────────────────┤
│ Email (example@gmail.com): OsamaMorad@gmail.com
├──────────────────────────────────────────────────────────────┤
│ Gender (M/F) m
```



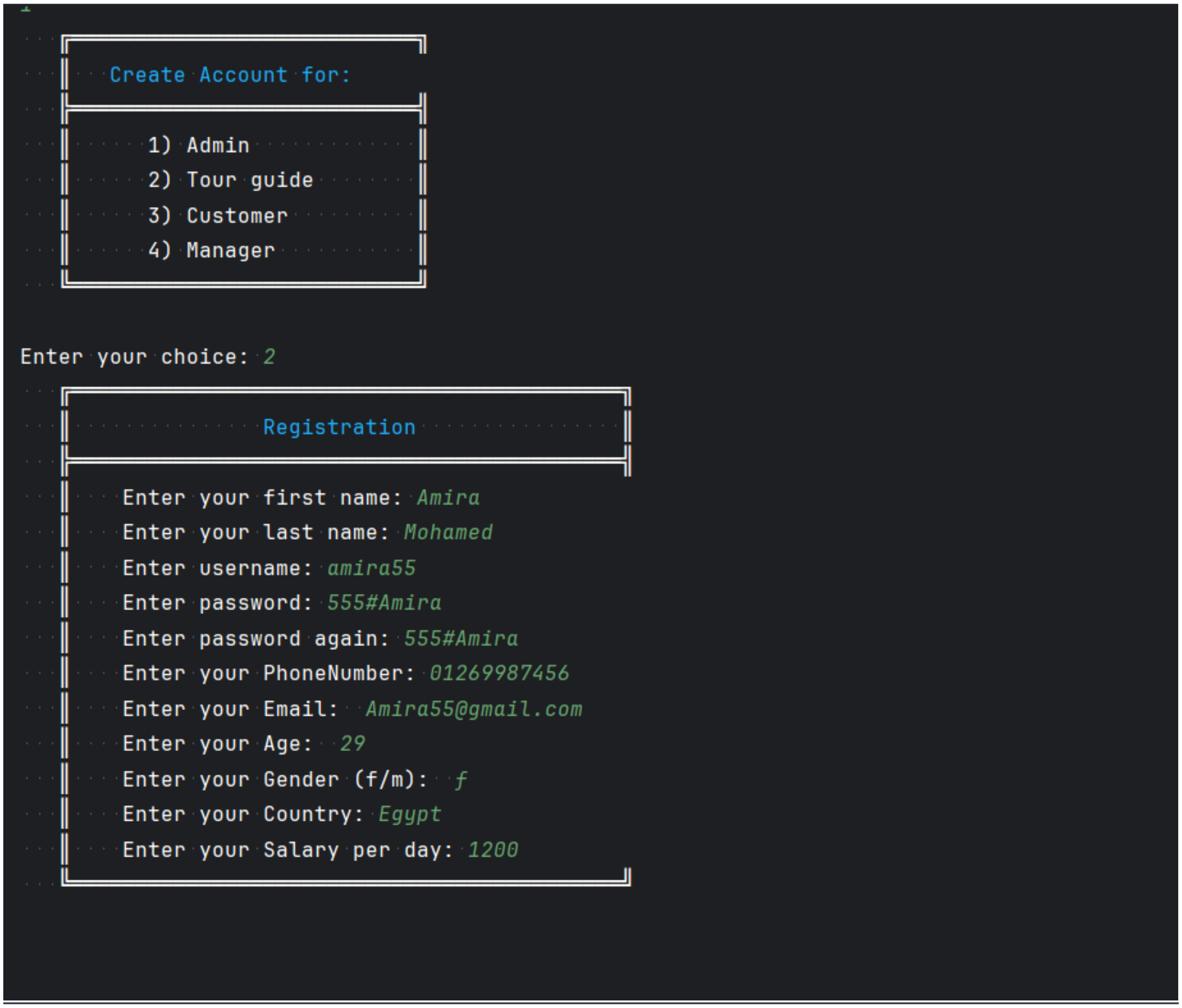
```
├─────────────────────────────────────────────────────────────────┤
│ Age: 26
├─────────────────────────────────────────────────────────────────┤
│ Company Name: WanderLift
└─────────────────────────────────────────────────────────────────┘
            * Created Successfully *
   ╔═══════════════════════════════╗
   ║    1)Create another account   ║
   ║    2)Home Page                ║
   ║    3)Exit                     ║
   ╚═══════════════════════════════╝
```

Here, he creates a manager account.

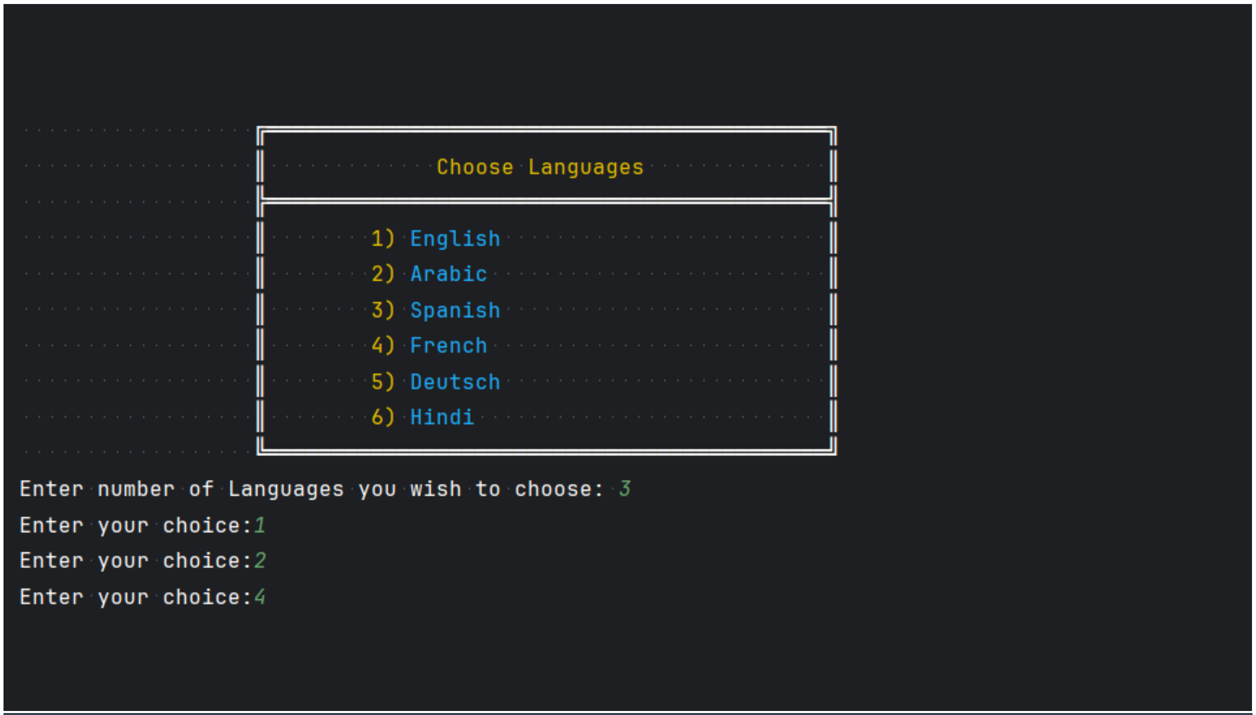


```
Enter your choice: 4
Enter your first name 
Alaa
Enter your last name 
Mohsen
Enter username 
alaa10
 Enter Your Email 
AlaaMohsen@gmail.com
Enter password 
123#Alaa
Enter confirm password 
123#Alaa
Enter your  Age 
27
Enter Phone Number 
01165548933
Enter your  Gender 
m
            * Created Successfully *
   ╔══════════════════════════════╗
   ║    1)Create another account  ║
   ║    2)Home Page               ║
   ║    3)Exit                    ║
   ╚══════════════════════════════╝
```

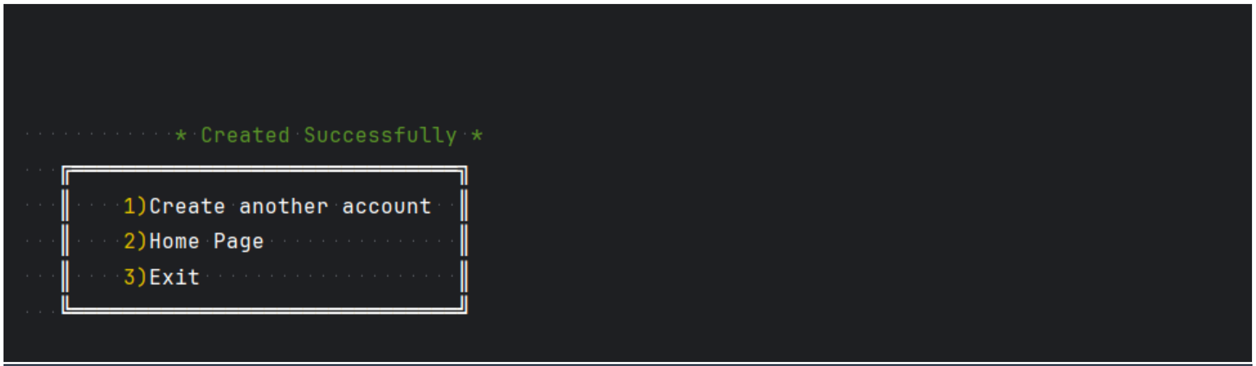
Here, he creates a TourGuide account.



```
   ╔════════════════════════════╗
   ║   Create Account for:
   ╠════════════════════════════╣
   ║      1) Admin              ║
   ║      2) Tour guide         ║
   ║      3) Customer           ║
   ║      4) Manager            ║
   ╚════════════════════════════╝

Enter your choice: 2
   ╔════════════════════════════════════════════╗
   ║              Registration                  ║
   ╠════════════════════════════════════════════╣
   ║    Enter your first name: Amira
   ║    Enter your last name: Mohamed
   ║    Enter username: amira55
   ║    Enter password: 555#Amira
   ║    Enter password again: 555#Amira
   ║    Enter your PhoneNumber: 01269987456
   ║    Enter your Email:  Amira55@gmail.com
   ║    Enter your Age:  29
   ║    Enter your Gender (f/m):  f
   ║    Enter your Country: Egypt
   ║    Enter your Salary per day: 1200
   ╚════════════════════════════════════════════╝
```

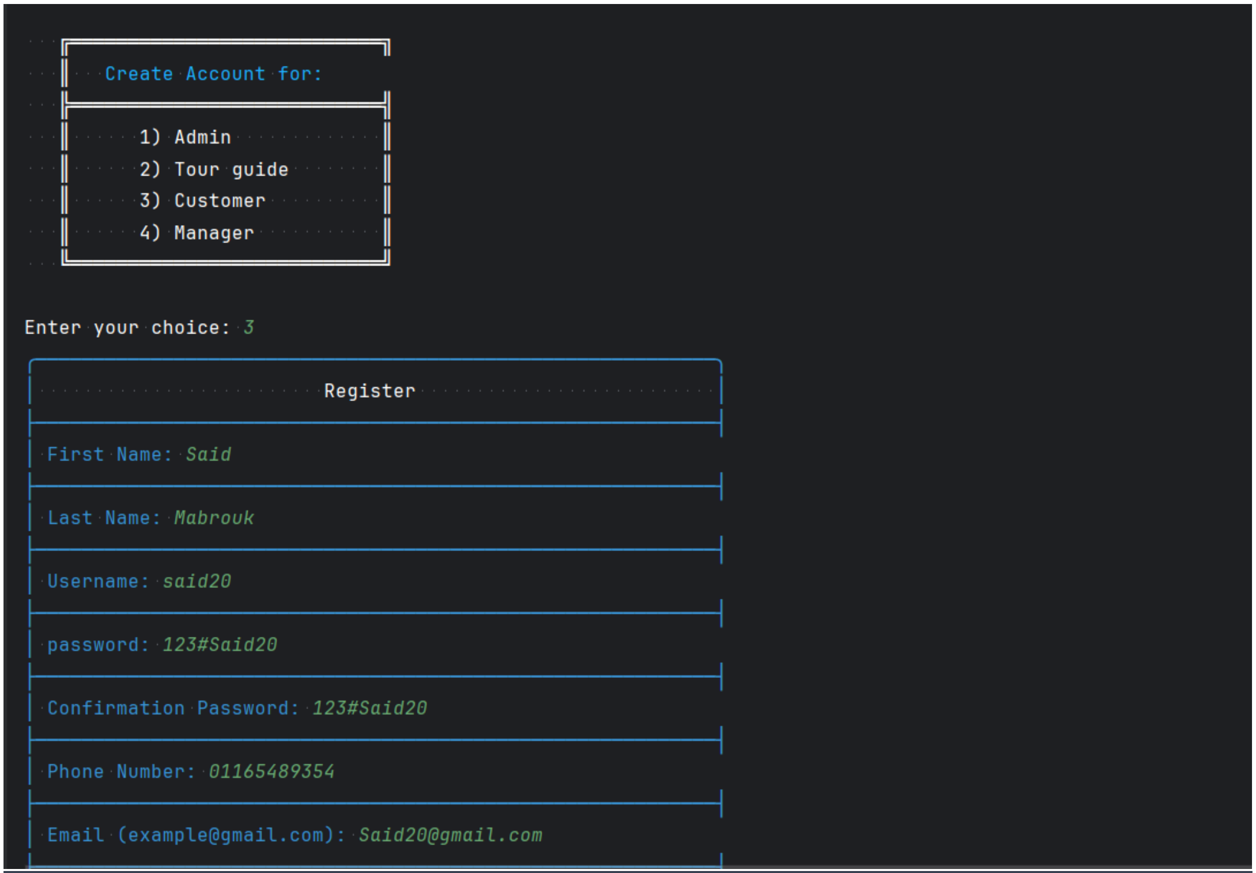


```
                   ╔════════════════════════════════════════════╗
                   ║            Choose Languages                ║
                   ╠════════════════════════════════════════════╣
                   ║        1) English                          ║
                   ║        2) Arabic                           ║
                   ║        3) Spanish                          ║
                   ║        4) French                           ║
                   ║        5) Deutsch                          ║
                   ║        6) Hindi                            ║
                   ╚════════════════════════════════════════════╝
Enter number of Languages you wish to choose: 3
Enter your choice:1
Enter your choice:2
Enter your choice:4
```

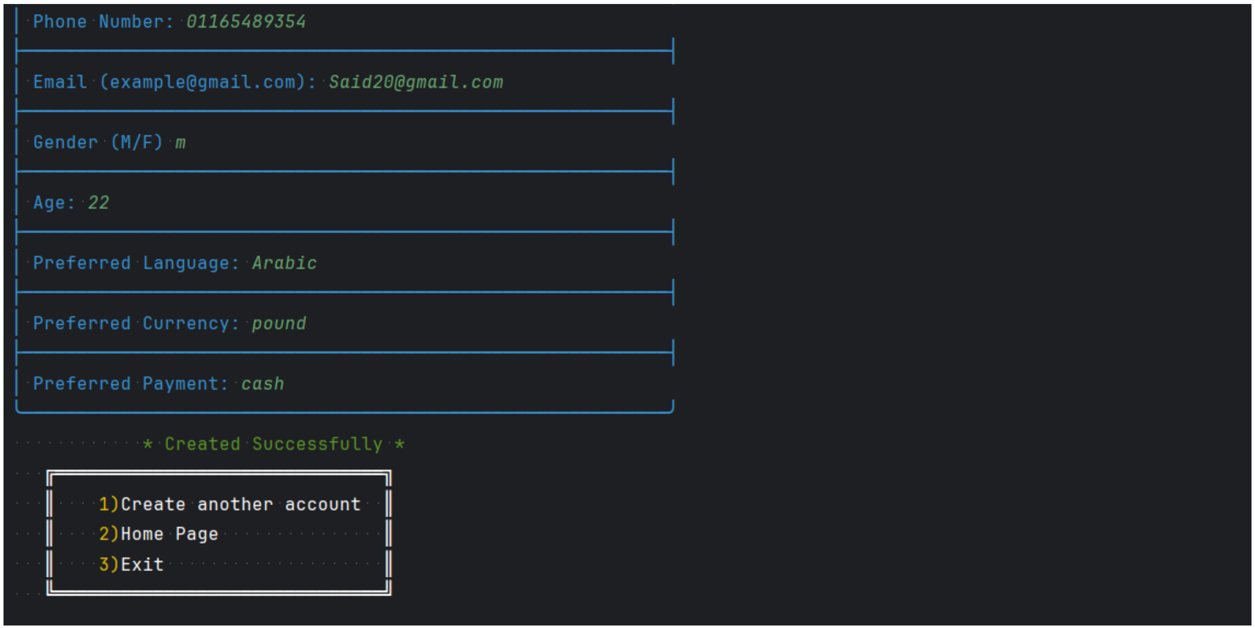


```
           * Created Successfully *
    ╔═══════════════════════════════╗
    ║   1)Create another account    ║
    ║   2)Home Page                 ║
    ║   3)Exit                      ║
    ╚═══════════════════════════════╝
```

Here, he creates a customer account.



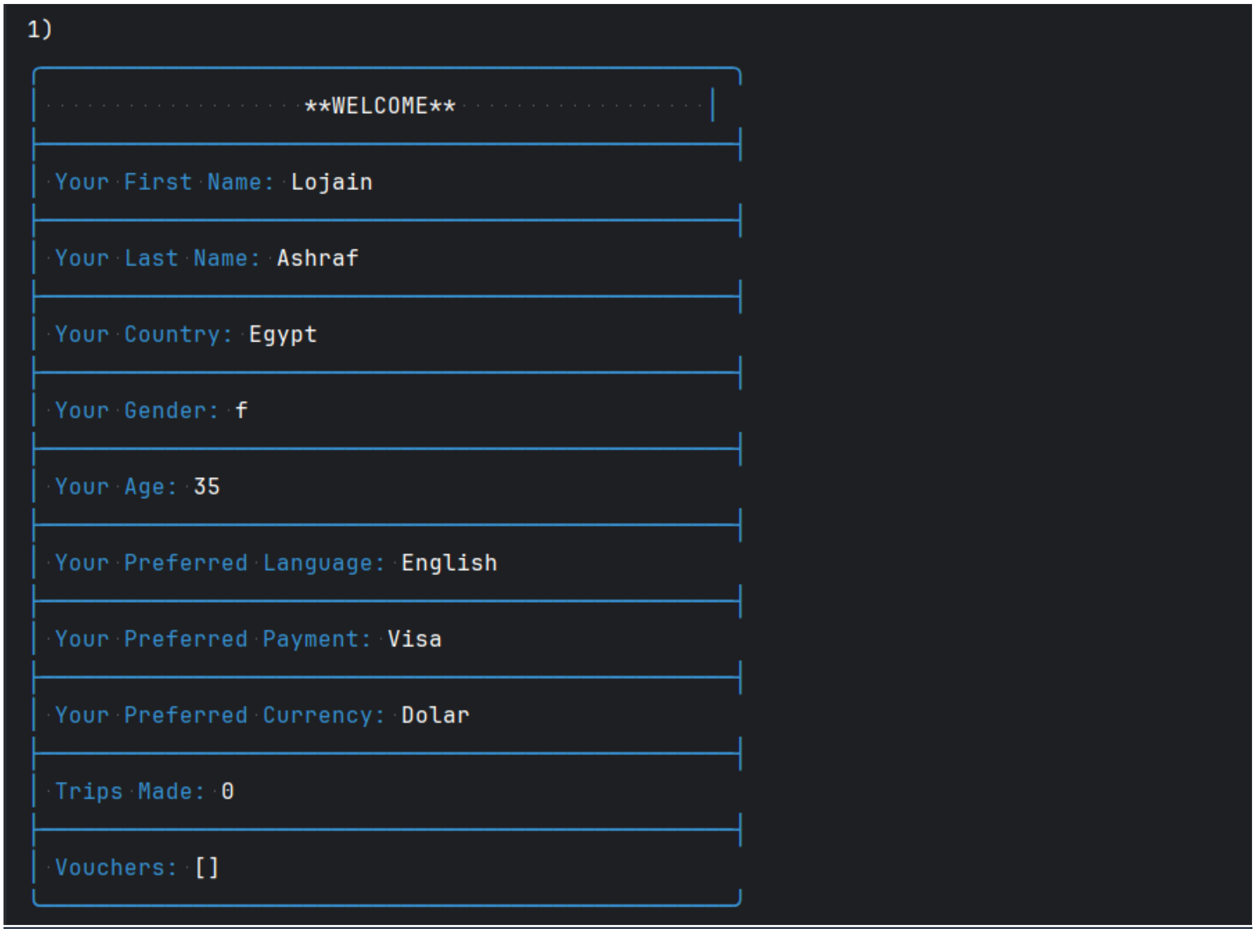
```
   ╔══════════════════════════╗
   ║   Create Account for:
   ╠══════════════════════════╣
   ║      1) Admin            ║
   ║      2) Tour guide       ║
   ║      3) Customer         ║
   ║      4) Manager          ║
   ╚══════════════════════════╝

Enter your choice: 3
 ┌────────────────────────────────────────────────────────┐
 │                        Register                        │
 ├────────────────────────────────────────────────────────┤
 │ First Name: Said
 ├────────────────────────────────────────────────────────┤
 │ Last Name: Mabrouk
 ├────────────────────────────────────────────────────────┤
 │ Username: said20
 ├────────────────────────────────────────────────────────┤
 │ password: 123#Said20
 ├────────────────────────────────────────────────────────┤
 │ Confirmation Password: 123#Said20
 ├────────────────────────────────────────────────────────┤
 │ Phone Number: 01165489354
 ├────────────────────────────────────────────────────────┤
 │ Email (example@gmail.com): Said20@gmail.com
```



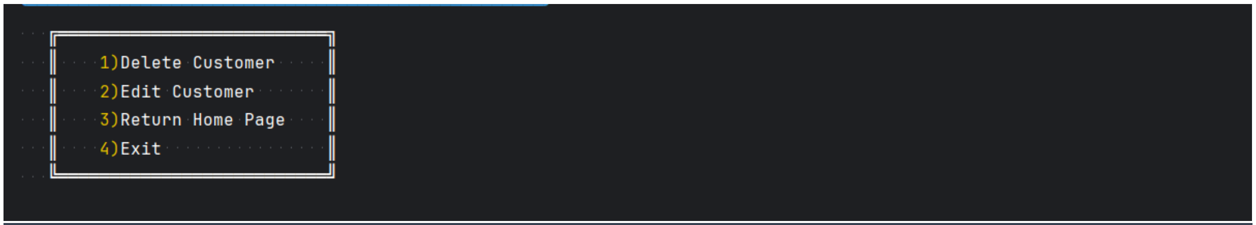
```
│ Phone Number: 01165489354
├────────────────────────────────────────────────────────┤
│ Email (example@gmail.com): Said20@gmail.com
├────────────────────────────────────────────────────────┤
│ Gender (M/F) m
├────────────────────────────────────────────────────────┤
│ Age: 22
├────────────────────────────────────────────────────────┤
│ Preferred Language: Arabic
├────────────────────────────────────────────────────────┤
│ Preferred Currency: pound
├────────────────────────────────────────────────────────┤
│ Preferred Payment: cash
└────────────────────────────────────────────────────────┘
           * Created Successfully *

   ╔═════════════════════════════╗
   ║    1)Create another account ║
   ║    2)Home Page              ║
   ║    3)Exit                   ║
   ╚═════════════════════════════╝
```

4.All Customer

In this interface, admins have access to a comprehensive list of customer accounts and possess the authorization to select and modify or delete specific accounts from the provided list.

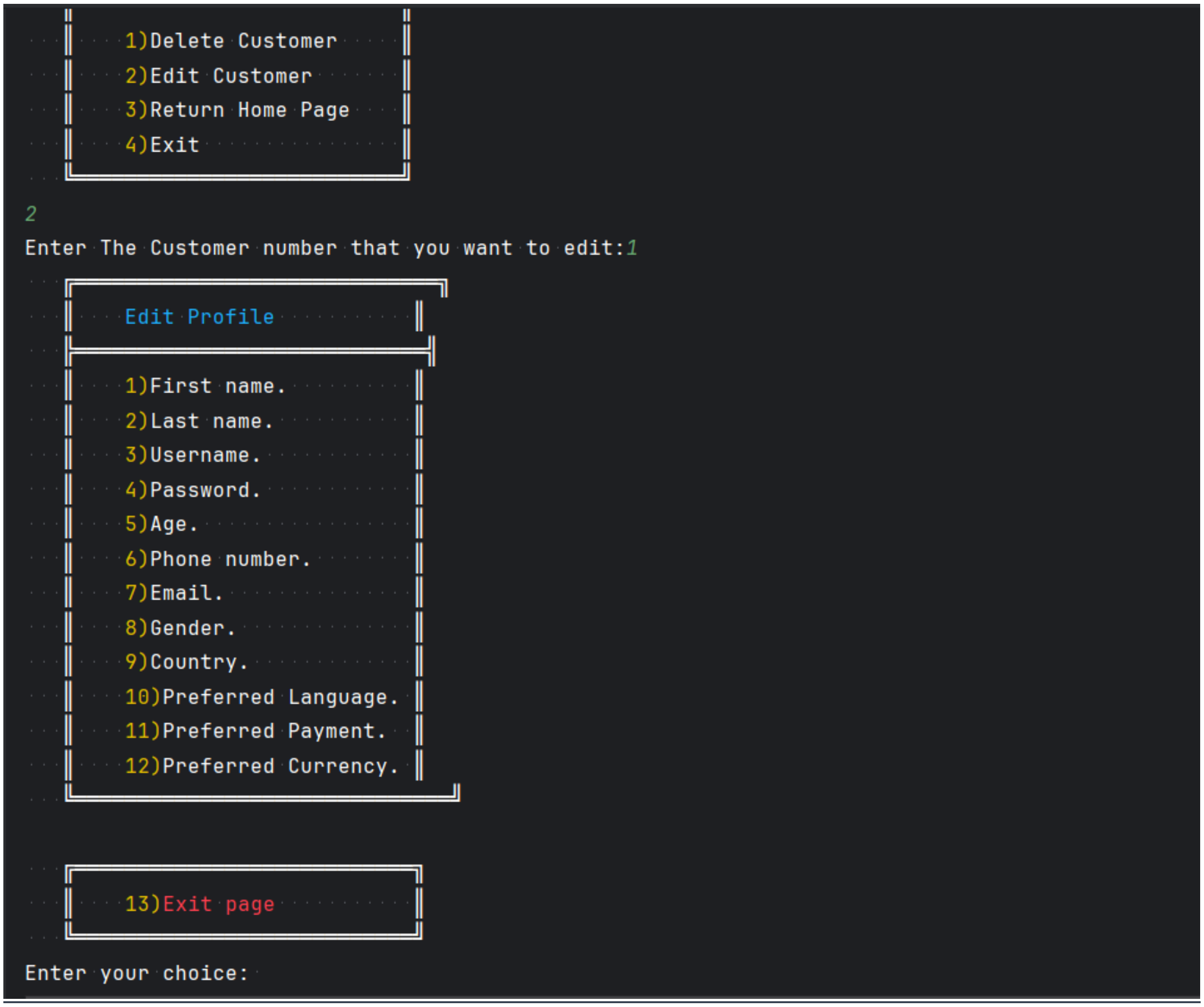


```
1)
╭────────────────────────────────────────────────╮
│                  **WELCOME**                   │
├────────────────────────────────────────────────┤
│ Your First Name: Lojain
├────────────────────────────────────────────────┤
│ Your Last Name: Ashraf
├────────────────────────────────────────────────┤
│ Your Country: Egypt
├────────────────────────────────────────────────┤
│ Your Gender: f
├────────────────────────────────────────────────┤
│ Your Age: 35
├────────────────────────────────────────────────┤
│ Your Preferred Language: English
├────────────────────────────────────────────────┤
│ Your Preferred Payment: Visa
├────────────────────────────────────────────────┤
│ Your Preferred Currency: Dolar
├────────────────────────────────────────────────┤
│ Trips Made: 0
├────────────────────────────────────────────────┤
│ Vouchers: []
╰────────────────────────────────────────────────╯
```



```
╔═══════════════════════╗
║    1)Delete Customer  ║
║    2)Edit Customer    ║
║    3)Return Home Page ║
║    4)Exit             ║
╚═══════════════════════╝
```

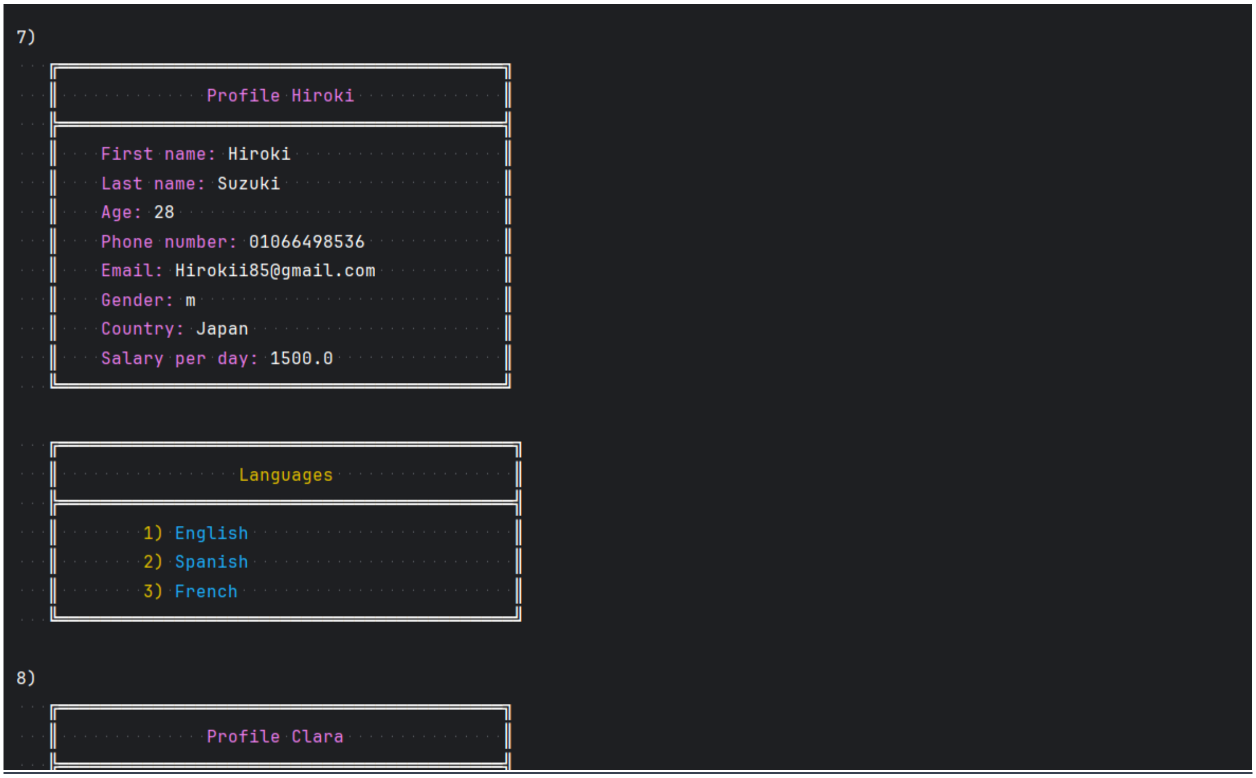
Here, the admin gets a list with all possible areas to edit in the customer account he chose.



```
    ║                           ║
    ║    1)Delete Customer      ║
    ║    2)Edit Customer        ║
    ║    3)Return Home Page     ║
    ║    4)Exit                 ║
    ╚═══════════════════════════╝

2
Enter The Customer number that you want to edit:1
    ╔══════════════════════════════╗
    ║    Edit Profile            ║
    ╠══════════════════════════════╣
    ║    1)First name.           ║
    ║    2)Last name.            ║
    ║    3)Username.             ║
    ║    4)Password.             ║
    ║    5)Age.                  ║
    ║    6)Phone number.         ║
    ║    7)Email.                ║
    ║    8)Gender.               ║
    ║    9)Country.              ║
    ║    10)Preferred Language.  ║
    ║    11)Preferred Payment.   ║
    ║    12)Preferred Currency.  ║
    ╚════════════════════════════════╝


    ╔════════════════════════════╗
    ║    13)Exit page            ║
    ╚════════════════════════════╝
Enter your choice:
```

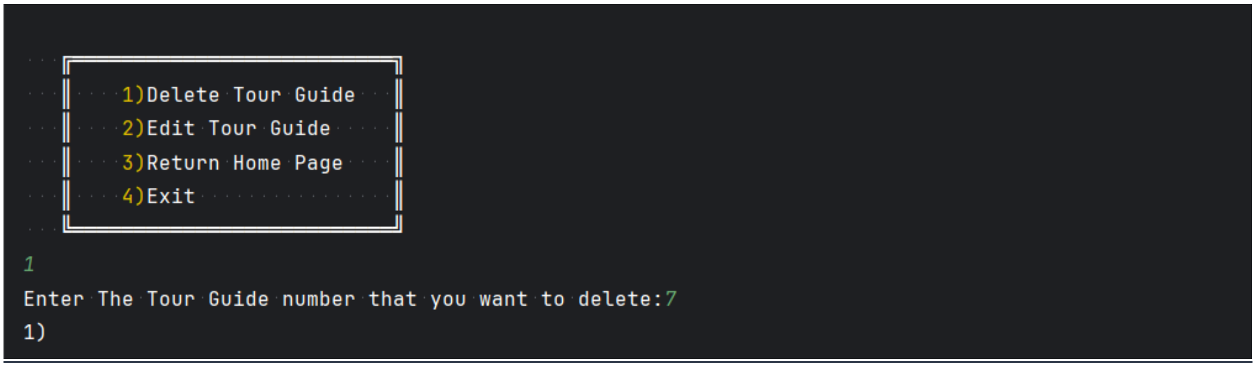
5.All TourGuides

In this interface, admins have access to a comprehensive list of TourGuides accounts and possess the authorization to select and modify or delete specific accounts from the provided list.



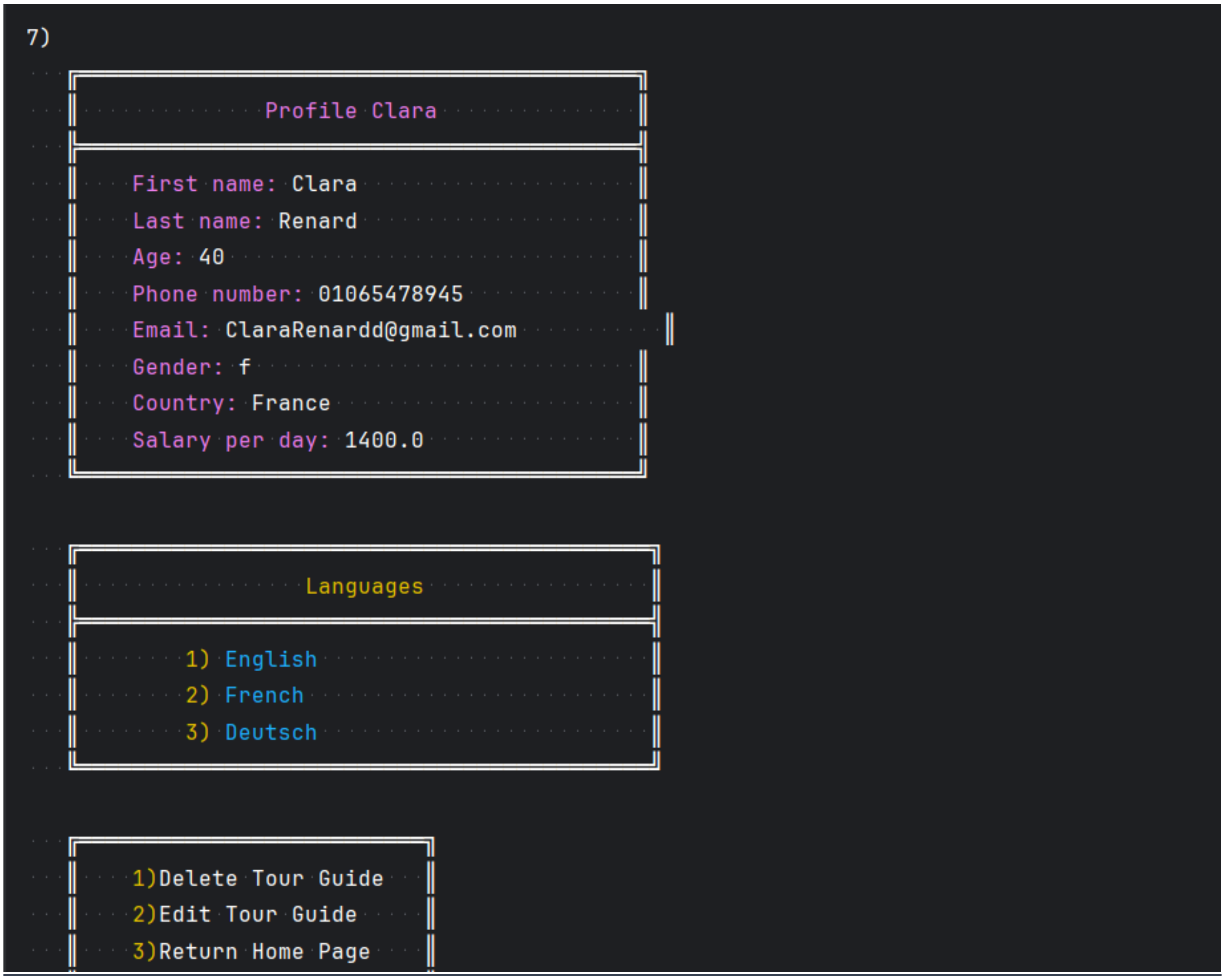
```
7)
   ╔═══════════════════════════════════════════╗
   ║             Profile Hiroki                ║
   ╠═══════════════════════════════════════════╣
   ║   First name: Hiroki                      ║
   ║   Last name: Suzuki                       ║
   ║   Age: 28                                 ║
   ║   Phone number: 01066498536               ║
   ║   Email: Hirokii85@gmail.com              ║
   ║   Gender: m                               ║
   ║   Country: Japan                          ║
   ║   Salary per day: 1500.0                  ║
   ╚═══════════════════════════════════════════╝

   ╔════════════════════════════════════════════╗
   ║                 Languages                  ║
   ╠════════════════════════════════════════════╣
   ║       1) English                           ║
   ║       2) Spanish                           ║
   ║       3) French                            ║
   ╚════════════════════════════════════════════╝

8)
   ╔═══════════════════════════════════════════╗
   ║             Profile Clara                 ║
```

In this scenario, the admin chose to delete account number 7 from the list.



```
   ╔═════════════════════════╗
   ║   1)Delete Tour Guide   ║
   ║   2)Edit Tour Guide     ║
   ║   3)Return Home Page    ║
   ║   4)Exit                ║
   ╚═════════════════════════╝
1
Enter The Tour Guide number that you want to delete:7
1)
```

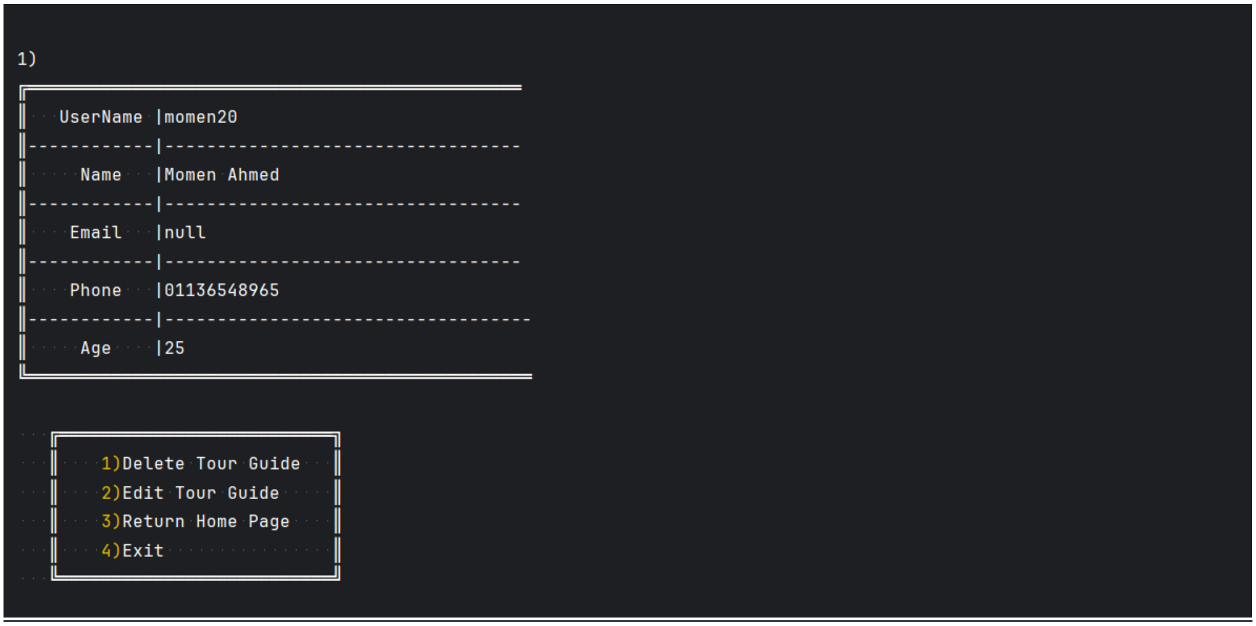
Here we see that the account truly got removed from the list.



```
7)
   ╔═══════════════════════════════════════════╗
   ║              Profile Clara                ║
   ╠═══════════════════════════════════════════╣
   ║   First name: Clara                       ║
   ║   Last name: Renard                       ║
   ║   Age: 40                                 ║
   ║   Phone number: 01065478945               ║
   ║   Email: ClaraRenardd@gmail.com             ║
   ║   Gender: f                               ║
   ║   Country: France                         ║
   ║   Salary per day: 1400.0                  ║
   ╚═══════════════════════════════════════════╝


   ╔════════════════════════════════════════════╗
   ║                 Languages                  ║
   ╠════════════════════════════════════════════╣
   ║       1) English                           ║
   ║       2) French                            ║
   ║       3) Deutsch                           ║
   ╚════════════════════════════════════════════╝


   ╔═══════════════════════════╗
   ║   1)Delete Tour Guide     ║
   ║   2)Edit Tour Guide       ║
   ║   3)Return Home Page      ║
```

6.All Managers

In this interface, admins have access to a comprehensive list of Manager Accounts and possess the authorization to select and modify or delete specific accounts from the provided list.



```
1)
╔═══════════════════════════════════════════════
║   UserName |momen20
║------------|---------------------------------
║     Name   |Momen Ahmed
║------------|---------------------------------
║    Email   |null
║------------|---------------------------------
║    Phone   |01136548965
║------------|----------------------------------
║     Age    |25
╚════════════════════════════════════════════════

   ╔═══════════════════════════╗
   ║    1)Delete Tour Guide    ║
   ║    2)Edit Tour Guide      ║
   ║    3)Return Home Page     ║
   ║    4)Exit                 ║
   ╚═══════════════════════════╝
```

Lastly,The admin has the option to either log out from the application or exit it entirely.

Manager Interface

Manager Functionalities:

1) CAR RENTALS

a manager can perform several actions related to car rentals, including adding new cars, editing car details, and deleting cars. Additionally, there should be specific handling for cases where the manager edits the rental rate per day or deletes a car.

Here's a textual representation of the actions:

Add New Car:

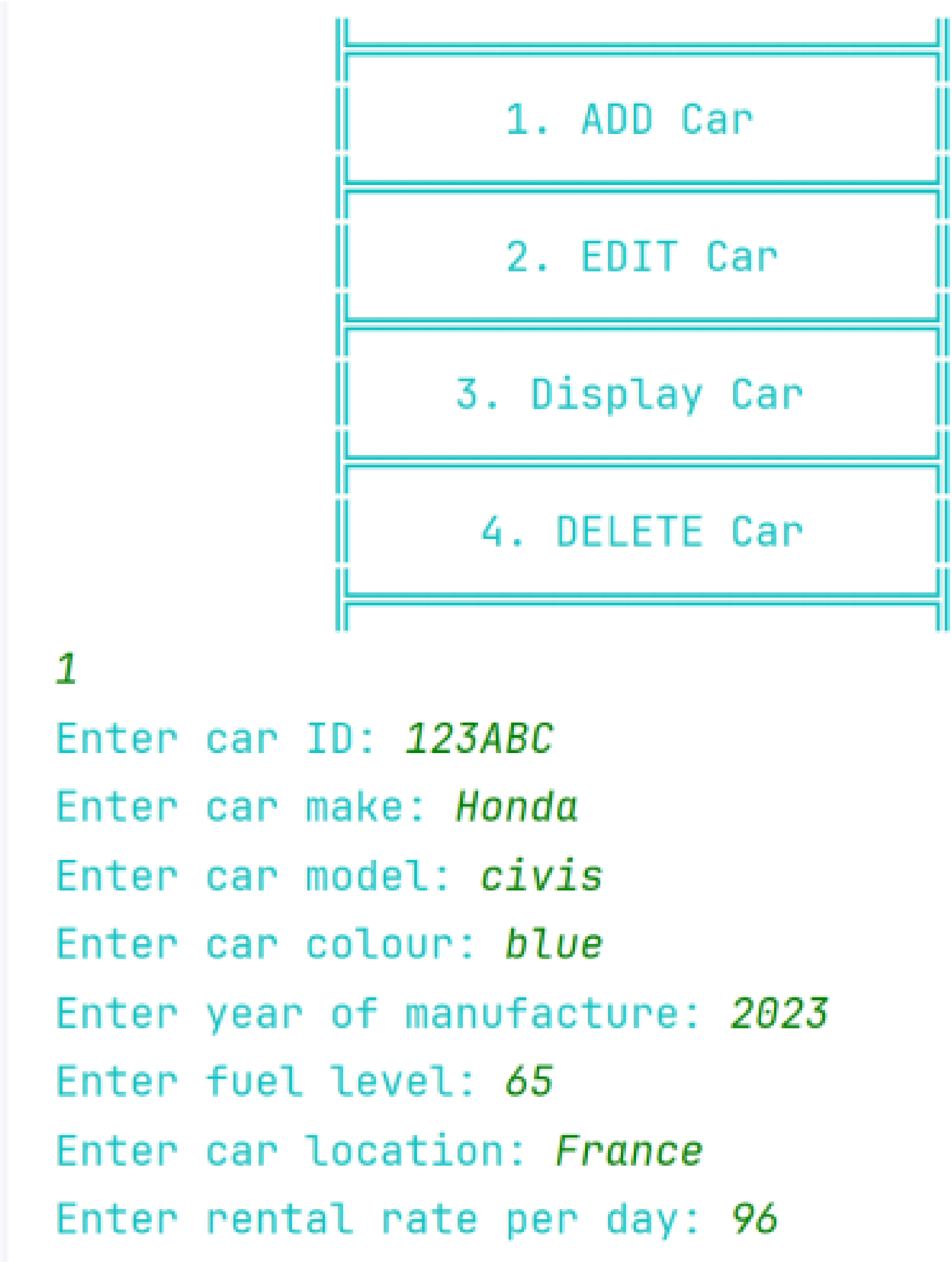
Input: Id, Make, Model, Colour, Year of Manufacture, Fuel Level, Location, Rental Rate Per Day. Check if the entered Id already exists.
If Id exists, display a message indicating that the car already exists.
If Id is unique, add the new car to the system.

Edit Car Rental:

the manager choose the car he want to Edit
The system provides options to edit Make, Model, Colour, Year of Manufacture, Fuel Level, Location, and Rental Rate Per Day.
If the manager changes the Rental Rate Per Day automatically all existing reservations for this car will be canceled from the Customer ticket .

Delete Car:

the manager choose the car he want to Delete
deleting the car will cancel all reservations associated with it.
Allow the manager to confirm the deletion.
If confirmed, delete the car and cancel all associated reservations from the Customer ticket .



```
            1. ADD Car

            2. EDIT Car

          3. Display Car

           4. DELETE Car

1
Enter car ID: 123ABC
Enter car make: Honda
Enter car model: civis
Enter car colour: blue
Enter year of manufacture: 2023
Enter fuel level: 65
Enter car location: France
Enter rental rate per day: 96
```

2) AIRPORT AND FLIGHTS

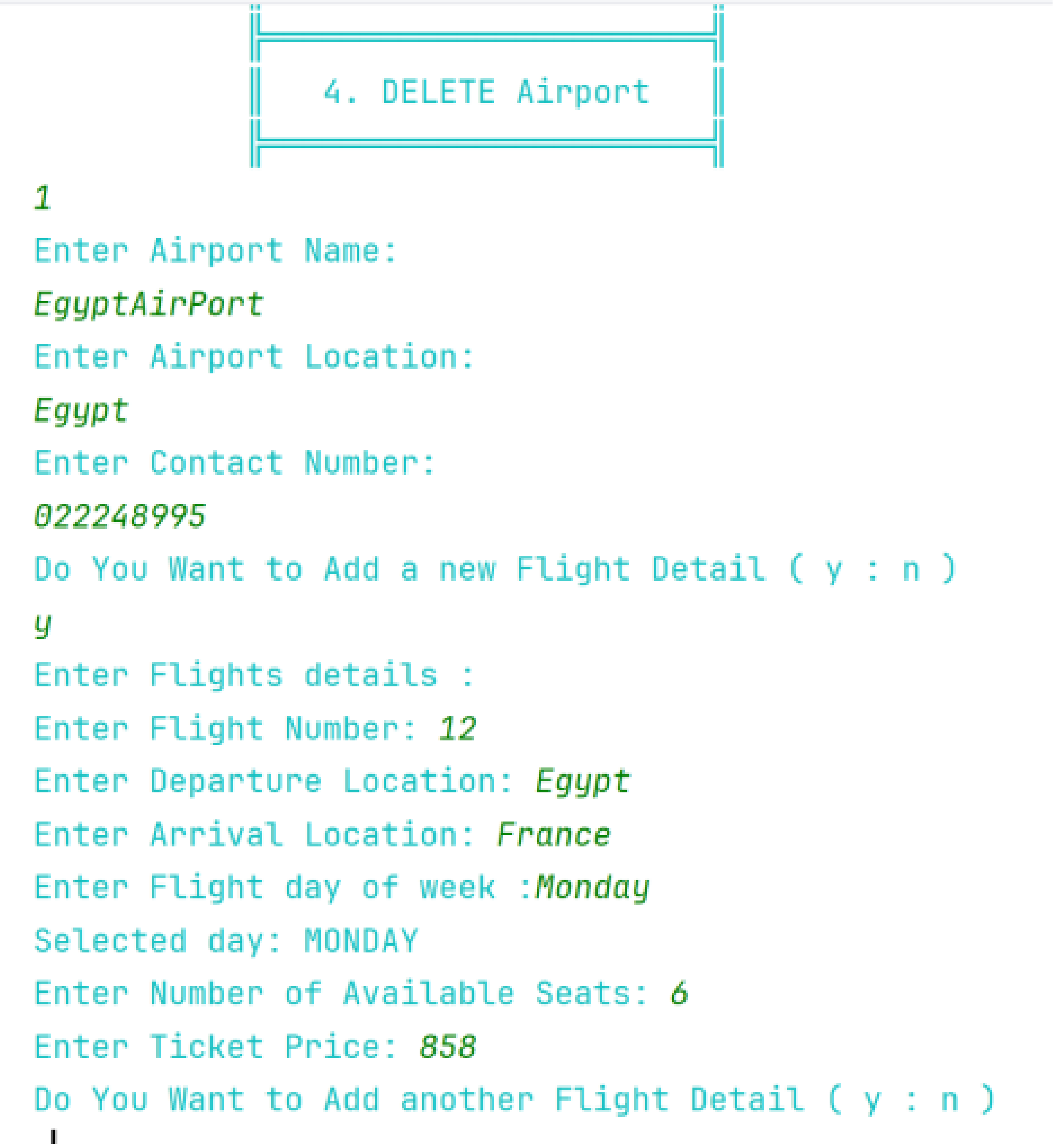
a manager can perform several actions related to Airport, including adding new flights, editing flight details, and deleting flights. Additionally, there should be specific handling for cases where the manager.

Here's a textual representation of the actions:

Add New Airport:
First he took from manager :Name,Location,Contact number.Then
He calls function of add new flight , that took from manager :
Flight number,Class level,Time light,Time arrival,Price,Departure ,Number of available seats Edit

Airport:

the manager can edit : name ,location, contact number.
And he can edit the flights like : flight Number ,departure ,arrival,
Flight day of week, flight Time, number Of Available Seats, flight Price
If he changes any data related to the booking flight all the booked flights will be canceled from customer tickets .
Delete Car:
He can delete airport or flights in airport but if he delete flight the system will check if the customer booked this flight if exist the booked
Flight will be canceled .



```
4. DELETE Airport

1
Enter Airport Name:
EgyptAirPort
Enter Airport Location:
Egypt
Enter Contact Number:
022248995
Do You Want to Add a new Flight Detail ( y : n )
y
Enter Flights details :
Enter Flight Number: 12
Enter Departure Location: Egypt
Enter Arrival Location: France
Enter Flight day of week :Monday
Selected day: MONDAY
Enter Number of Available Seats: 6
Enter Ticket Price: 858
Do You Want to Add another Flight Detail ( y : n )
```

3)HOTELS
a manager can perform several actions related to Hotels, including adding new Hotels,Rooms, editing Hotels,Rooms details, and deleting Hotels,Rooms. Additionally, there should be specific handling for

cases where the manager.

AddNewHotel

adds a new hotel to the list of hotels for the agency.
It prompts the manager to input details such as hotel name, location, rating, contact number, and whether there is an aqua park.
After entering basic details the manager handles room details for the hotel.This is responsible for entering room details for a newly added hotel. It creates instances of different types of rooms (single, double, and general) And add there details
Finally, it asks the manager to confirm adding the hotel to the agency, allowing for cancellation if needed.

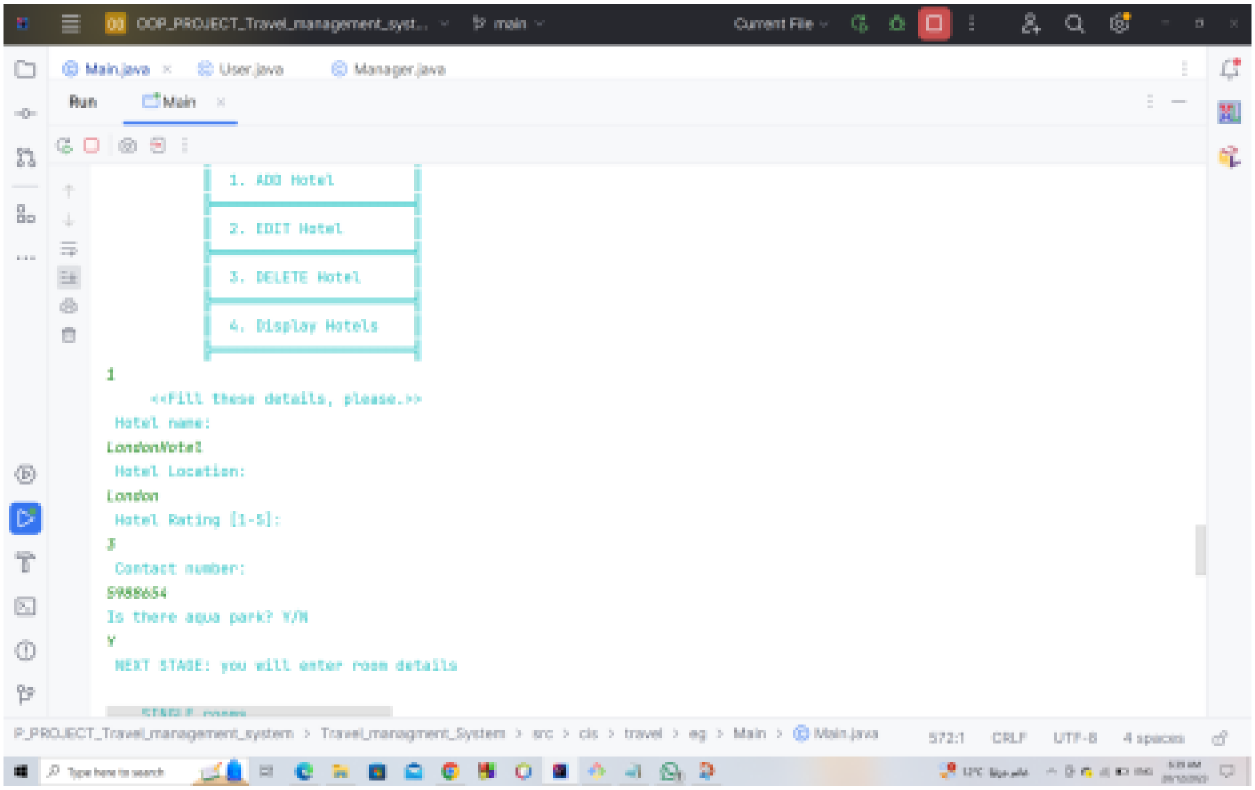
Edit Hotel Details

the manager can edit certain details of a hotel.It first confirms the manager's intention to edit and then displays basic details of all hotels.
The manager chooses a hotel and the aspect they want to edit (single rooms, double rooms, general rooms, or the hotel's rating).
Based on the choice, it creates instances of room types or updates the hotel's rating. Display
Hotel Details

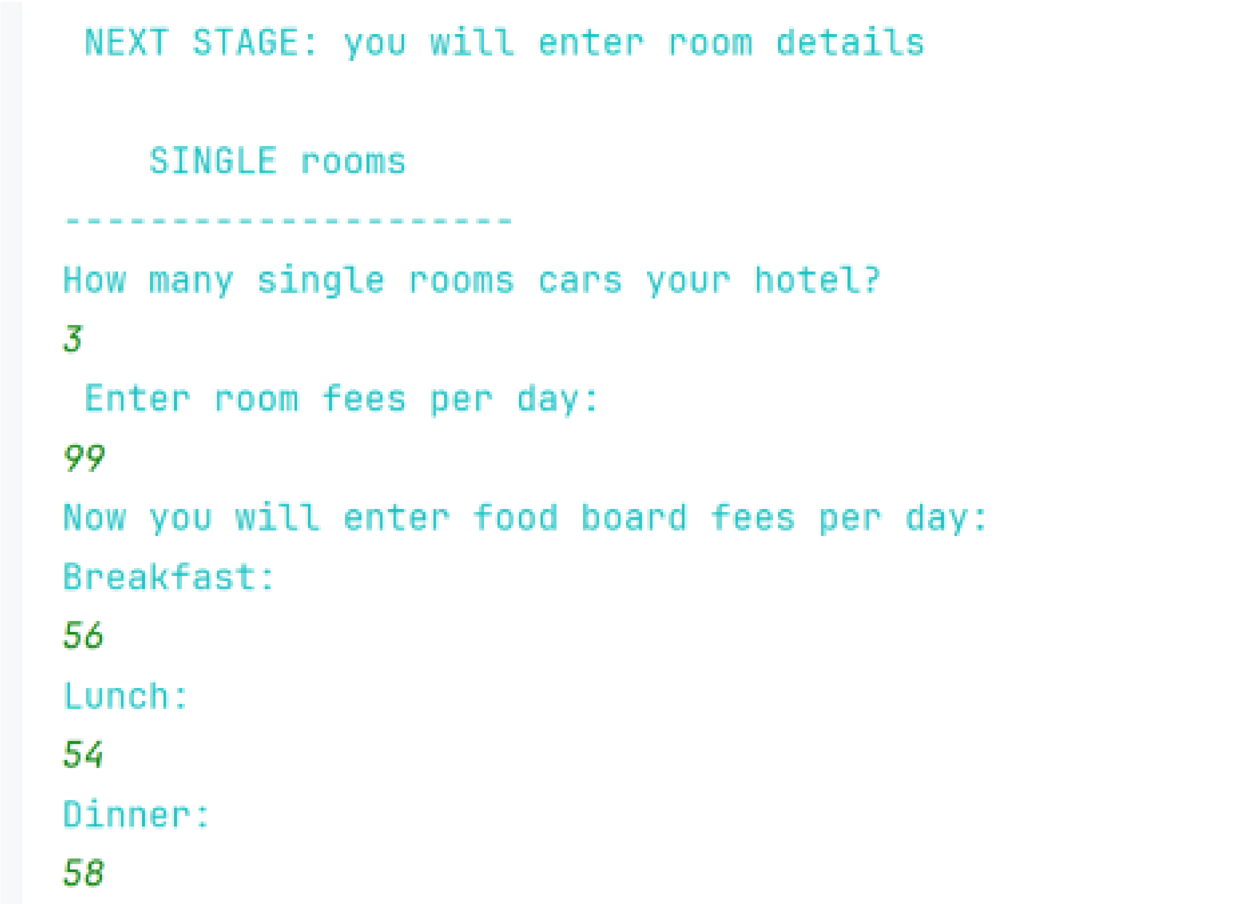
The manager can view basic details of all hotels in the agency, including hotel name, rating, location, and contact number.

Delete Hotel

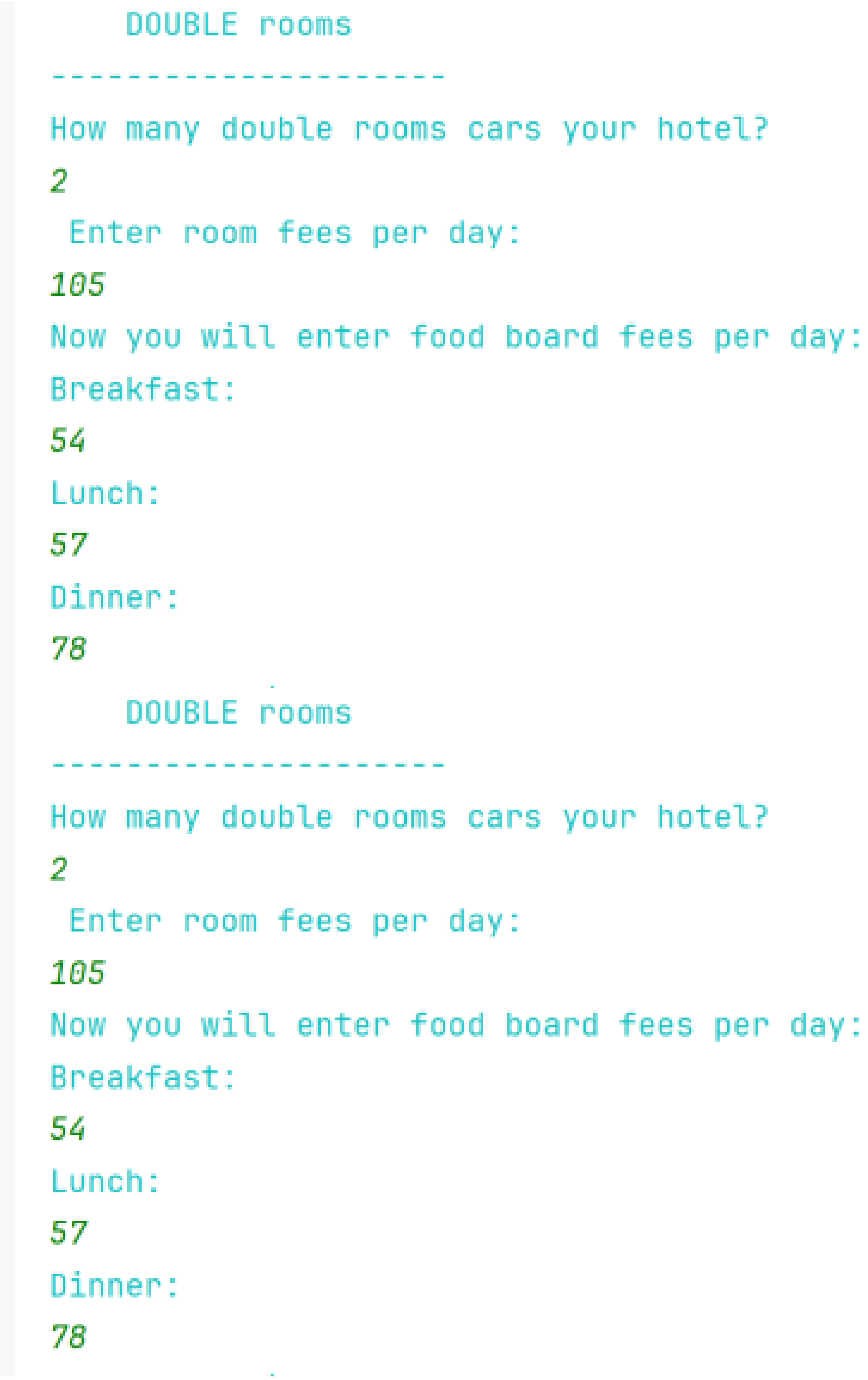
the manager can delete one hotel or all hotels.
If deleting one hotel, it asks the manager to choose the hotel, confirms the deletion, and then cancels reservations associated with that hotel.
If deleting all hotels, it confirms with the manager and cancels all reservations associated with all hotels.


OOP_PROJECT_Travel_management_syst...
main
Current File
Main.java
User.java
Manager.java
Run
Main
P_PROJECT_Travel_management_system > Travel_managment_System > src > cis > travel > eg > Main > Main.java
572:1
CRLF
UTF-8
4 spaces
Type here to search

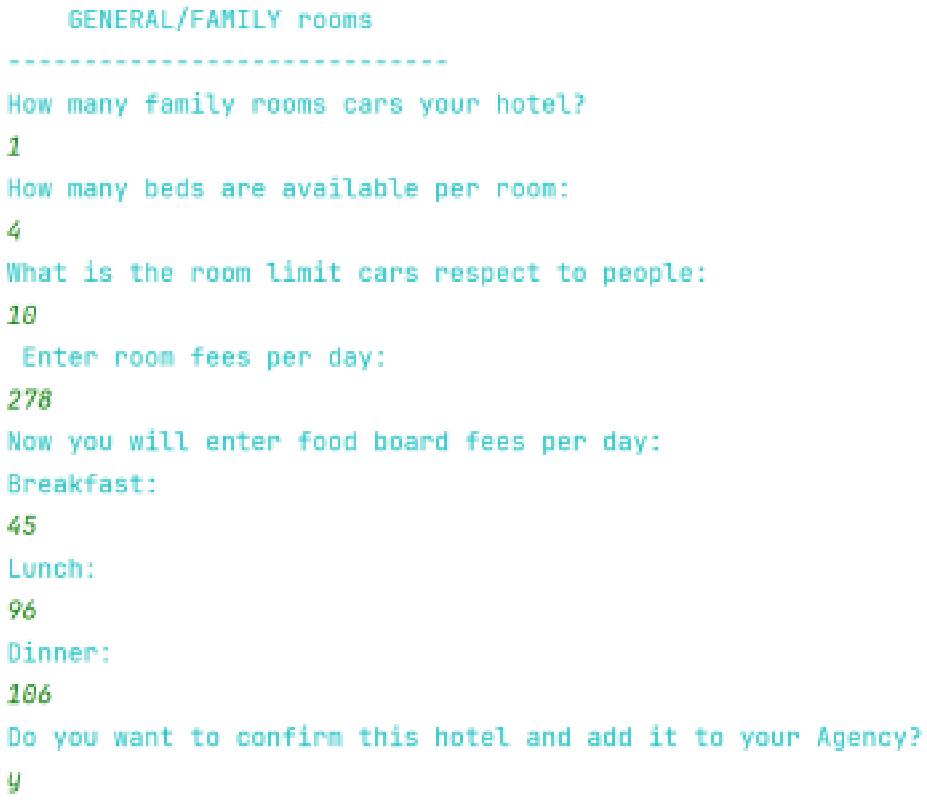
```
          1. ADD Hotel

          2. EDIT Hotel

          3. DELETE Hotel

          4. Display Hotels

1
     <<Fill these details, please.>>
 Hotel name:
LondonHotel
 Hotel Location:
London
 Hotel Rating [1-5]:
3
 Contact number:
5988654
Is there aqua park? Y/N
Y
 NEXT STAGE: you will enter room details

    SINGLE rooms
```



```
 NEXT STAGE: you will enter room details

    SINGLE rooms
---------------------
How many single rooms cars your hotel?
3
 Enter room fees per day:
99
Now you will enter food board fees per day:
Breakfast:
56
Lunch:
54
Dinner:
58
```



```
    DOUBLE rooms
---------------------
How many double rooms cars your hotel?
2
 Enter room fees per day:
105
Now you will enter food board fees per day:
Breakfast:
54
Lunch:
57
Dinner:
78
    DOUBLE rooms
---------------------
How many double rooms cars your hotel?
2
 Enter room fees per day:
105
Now you will enter food board fees per day:
Breakfast:
54
Lunch:
57
Dinner:
78
```



```
    GENERAL/FAMILY rooms
-----------------------------
How many family rooms cars your hotel?
1
How many beds are available per room:
4
What is the room limit cars respect to people:
10
 Enter room fees per day:
278
Now you will enter food board fees per day:
Breakfast:
45
Lunch:
96
Dinner:
106
Do you want to confirm this hotel and add it to your Agency?
y
```

4) TRIP

a manager can perform several actions related to Trip , including adding new Trip , editing Trip details, and deleting Trips . Additionally, there should be specific handling for cases where the manager edits the Trip or deletes a Trip .

Adding New Trip (addNewTrip):

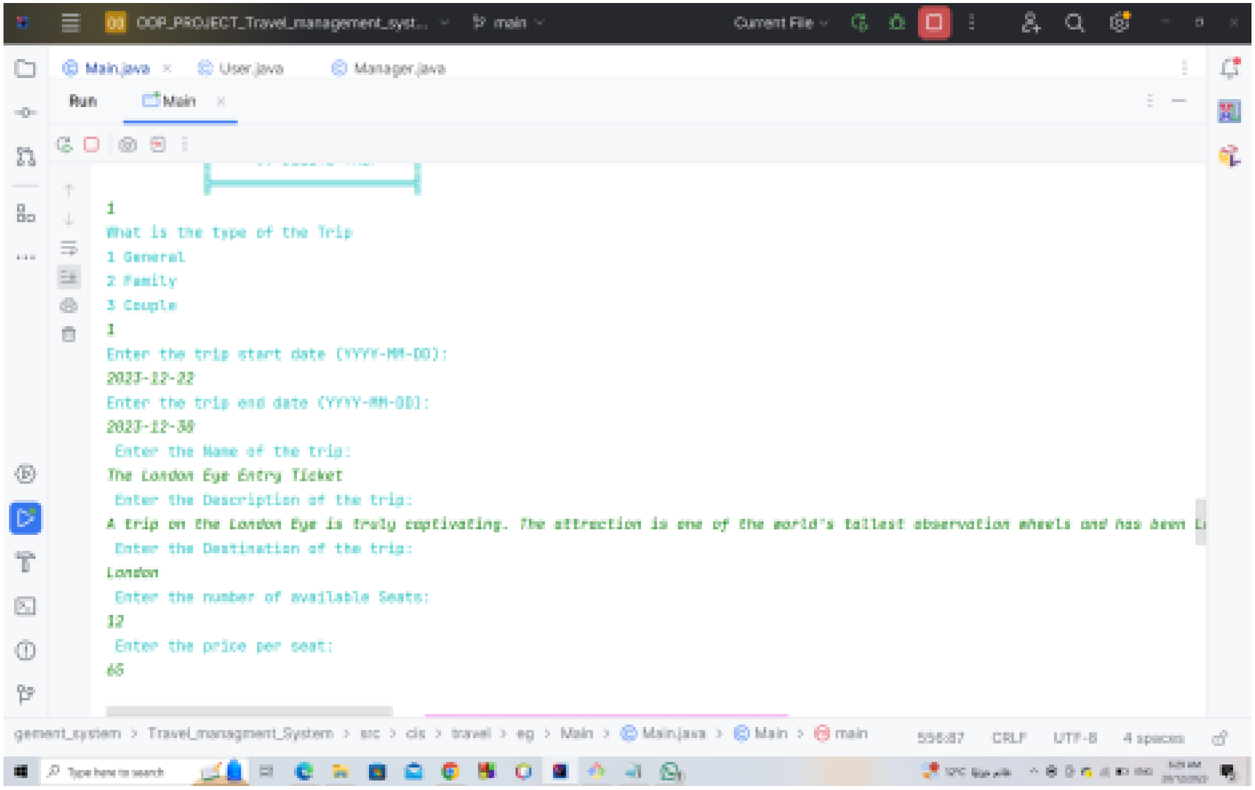
The manager is prompted to specify the type of trip (General, Family, or Couple). Trip details, including start and end dates, destination, available seats, and price per seat, are entered.
The system checks for the availability of tour guides and allows the user to adjust trip dates if necessary.
The manager assigns a tour guide to the trip.
The manager can confirm and add the trip to the list.

Editing Trip (EditTrip):

managers are presented with a menu to either accept rules and edit a current trip or go back to the homepage.
The system displays existing trips with their details.
managers choose a trip to edit and specify the aspect to modify (start date, end date, available seats, or price per seat).
The system validates input, asks for confirmation, and updates the trip details accordingly.
Users have the option to edit another trip.and after the Editing the System cancel the booked tickets for all customers related to this trip.

Deleting Trip

The system displays all existing trips with their details.
Prompt the manager to enter the number of the trip they want to delete.
And then the System Cancel reservations associated with the selected trip like carsRentals ,Hotels,Flights and activities and then Remove the selected trip from the list of trips.



```
1
What is the type of the Trip
1 General
2 Family
3 Couple
1
Enter the trip start date (YYYY-MM-DD):
2023-12-22
Enter the trip end date (YYYY-MM-DD):
2023-12-30
 Enter the Name of the trip:
The London Eye Entry Ticket
 Enter the Description of the trip:
A trip on the London Eye is truly captivating. The attraction is one of the world's tallest observation wheels and has been L
 Enter the Destination of the trip:
London
 Enter the number of available Seats:
12
 Enter the price per seat:
65
```

gement_system > Travel_managment_System > src > cis > travel > eg > Main > Main.java > Main > main
CRLF
UTF-8
4 spaces
Type here to search

5) a manager can perform several actions related to Activities, including adding new Activities, editing Activities details, and deleting Activities. Additionally, there should be specific handling for cases where the manager edits the Trip or deletes a Activities

AddNewActivity

System Allow manager to add a new activity to the system. It follows these steps:

Prompt the user to input details such as name, type, suitability, description, date, location, duration, and price.
Display the details of the new activity.
Ask the user to confirm whether they want to add the activity.
If confirmed, add the activity to the list of activities.
.
Edit Activity

The system enables the manager to edit existing activities. It follows these steps:

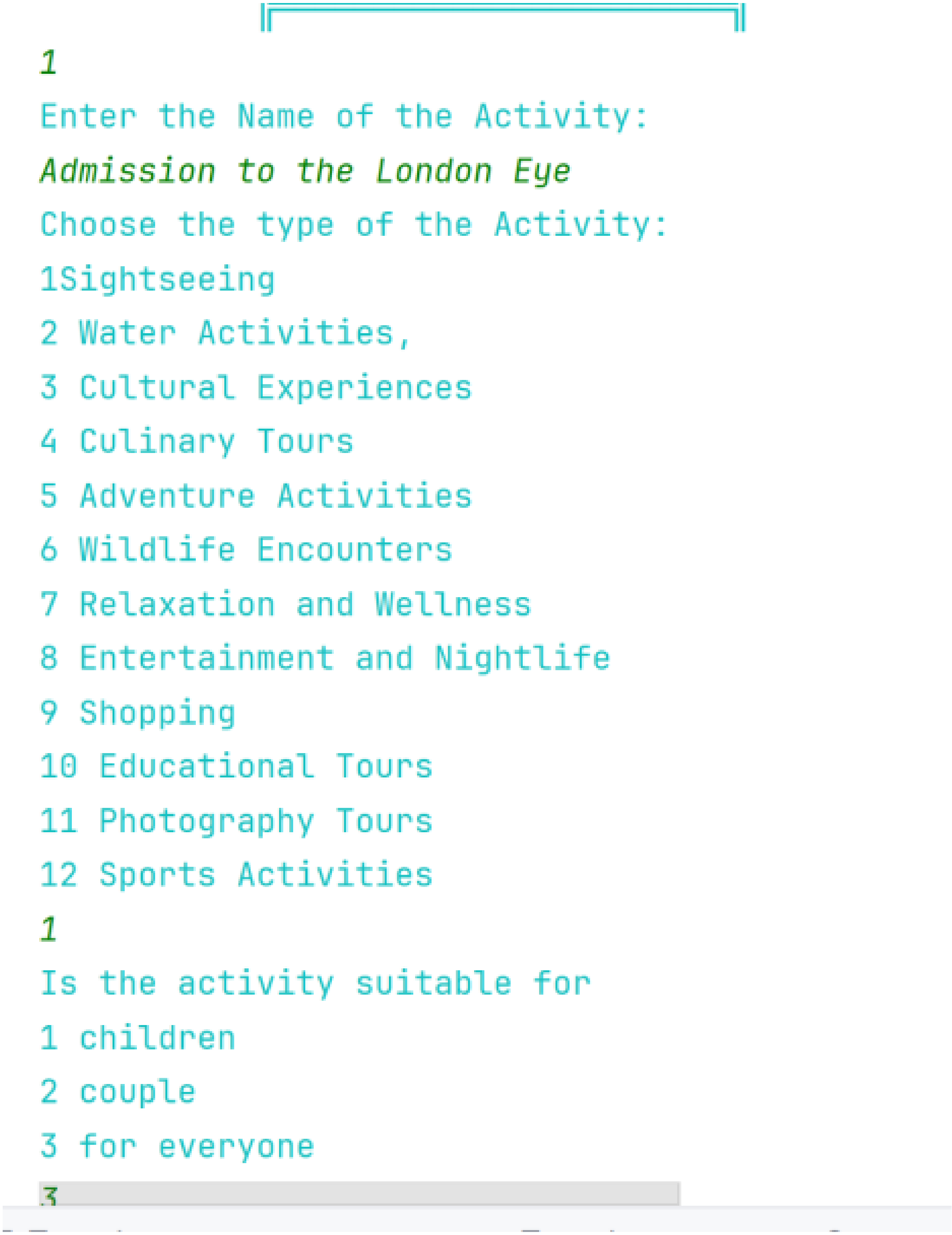
Display a list of existing activities.
Prompt the user to choose the activity they want to edit.
Display the chosen activity's details and ask the user what aspect they want to edit (suitability, date, duration, or price).
Update the selected aspect and cancel reservations associated with the old activity. Display the new details of the activity.

Ask the manager if they want to edit another activity.

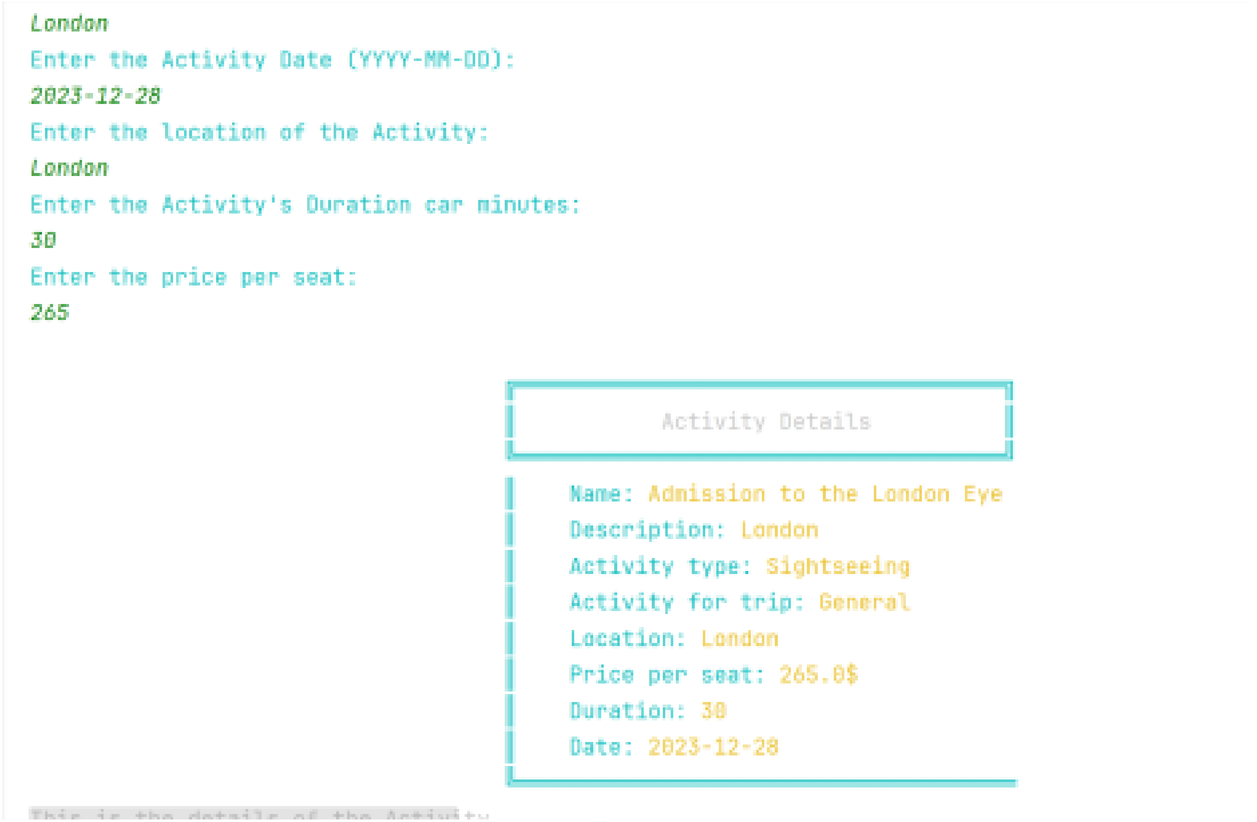
Deleting Activity

The system displays all existing Activities with their details.

Prompt the manager to enter the number of the Activity they want to delete. And then the System Cancel reservations associated with the selected Activity then Remove the selected trip from the list of Activity .



```
1
Enter the Name of the Activity:
Admission to the London Eye
Choose the type of the Activity:
1Sightseeing
2 Water Activities,
3 Cultural Experiences
4 Culinary Tours
5 Adventure Activities
6 Wildlife Encounters
7 Relaxation and Wellness
8 Entertainment and Nightlife
9 Shopping
10 Educational Tours
11 Photography Tours
12 Sports Activities
1
Is the activity suitable for
1 children
2 couple
3 for everyone
3
```



```
London
Enter the Activity Date (YYYY-MM-DD):
2023-12-28
Enter the location of the Activity:
London
Enter the Activity's Duration car minutes:
30
Enter the price per seat:
265

                                    Activity Details

                                Name: Admission to the London Eye
                                Description: London
                                Activity type: Sightseeing
                                Activity for trip: General
                                Location: London
                                Price per seat: 265.0$
                                Duration: 30
                                Date: 2023-12-28

This is the details of the Activity
```

6) the manager can view and edit their profile with the same restrictions as the "rejecter"

7) The manager can handle tour guide complaints through the following steps:

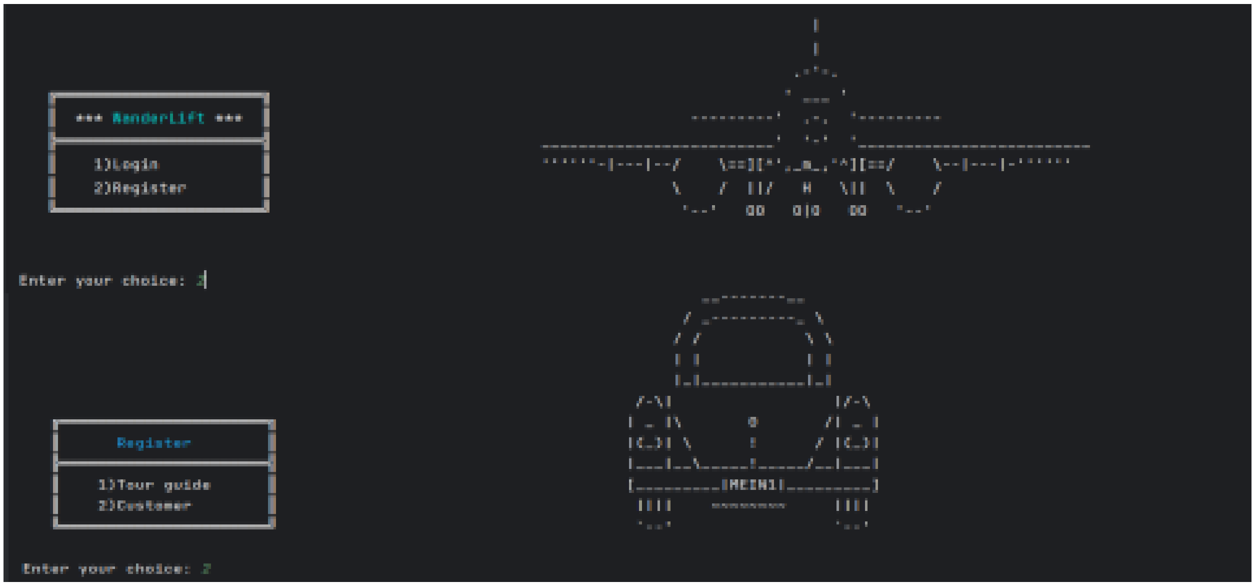
Filter tour guides with complaints and display their details.
Iterate through the tour guides with associated complaint trips, reassigning them using the AssignTourGuide method.
Remove the complaint trips from the tour guides' complaint lists.
If there are no available tour guides for reassignment, the associated trip will be canceled, and all booked customer tickets will be canceled as well.

Customer

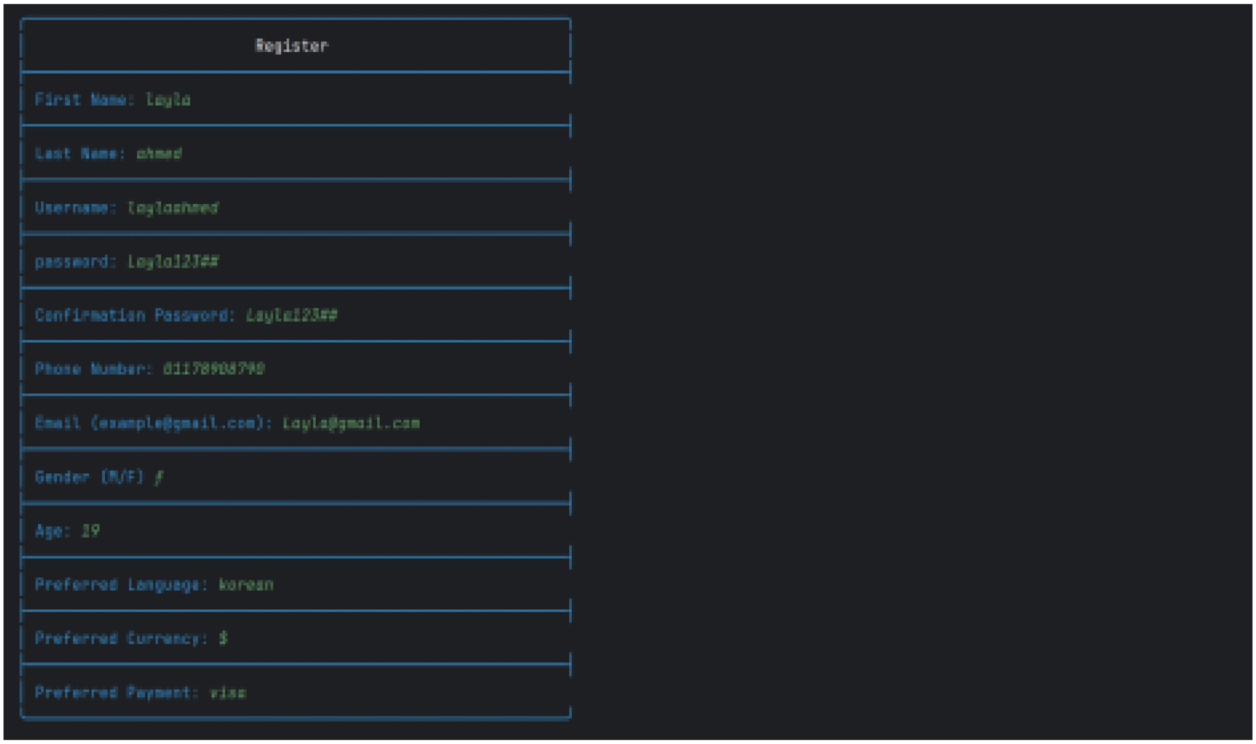
Customers possess the capability to access their profiles and book comprehensive trip packages covering car rentals, hotels, flights, and exclusive activities. Furthermore, they can review their booking history, manage ticket alterations, oversee and adjust travel services, provide feedback post-trip, receive unique vouchers for multiple bookings, and have the freedom to edit their travel services to suit their preferences.

Functionalities:

1. Register: This method serves as an interface for customers to input their details, allowing the system to create and store customer profiles within the respective lists for future use.

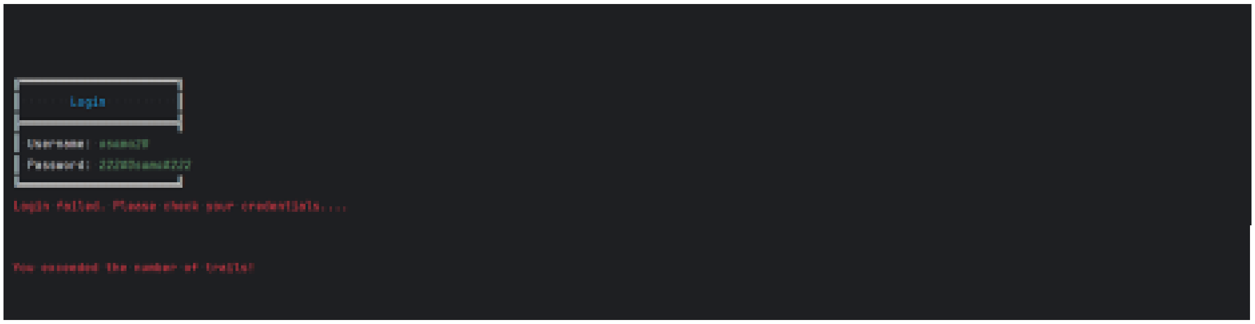


```
*** WanderLift ***

1)Login
2)Register

Enter your choice: 2

Register

1)Tour guide
2)Customer

Enter your choice: 2
```



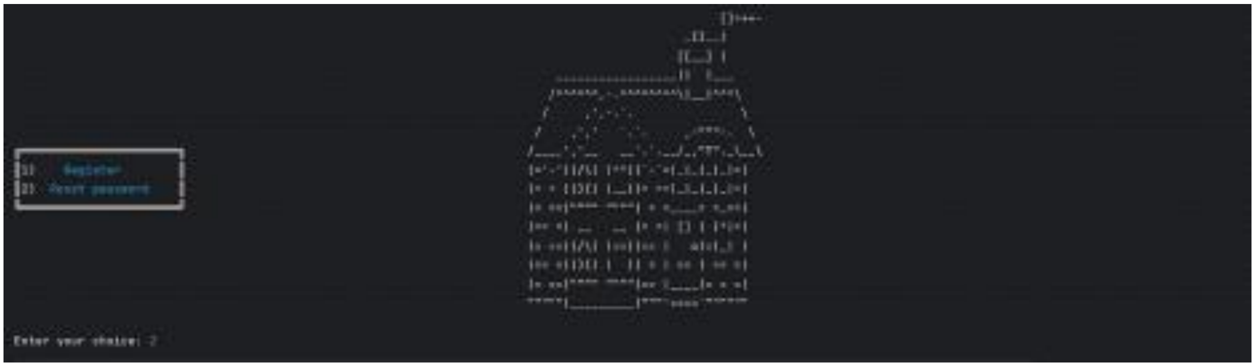
```
Register
First Name: layla
Last Name: ahmed
Username: laylaahmed
password: Layla123##
Confirmation Password: Layla123##
Phone Number: 01178908790
Email (example@gmail.com): Layla@gmail.com
Gender (M/F) f
Age: 29
Preferred Language: korean
Preferred Currency: $
Preferred Payment: visa
```

2. Login: Within this system, the customer can log in with access to specific options. Initially, three login attempts are allowed; upon failure, an alternative interface offers choices to register or reset the password.

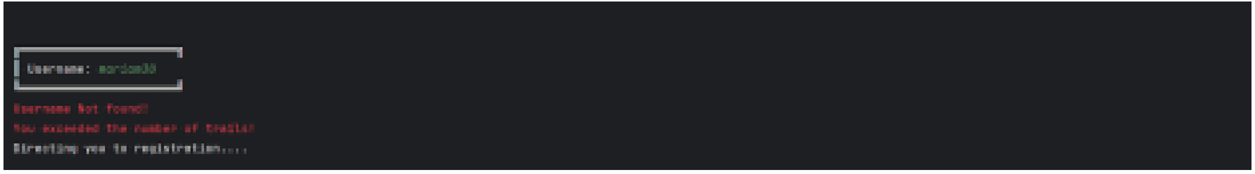


```
Login
Username: osama28
Password: 2220osama@222
Login failed. Please check your credentials....

You exceeded the number of trails!
```

For password resets, providing the username is required; failure to find the username consecutively three times redirects to the registration process.

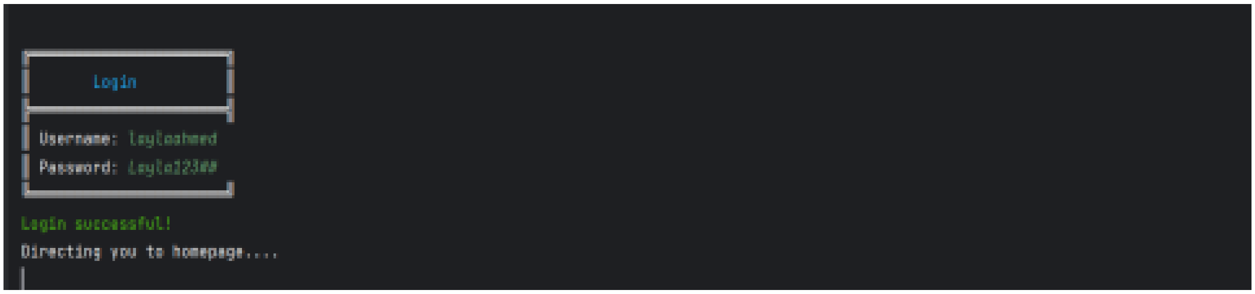


```
1)    Register
2)  Reset password

Enter your choice: 2
```



```
 Username: mordom38

Username Not found!
You exceeded the number of trails!
Directing you to registration....
```

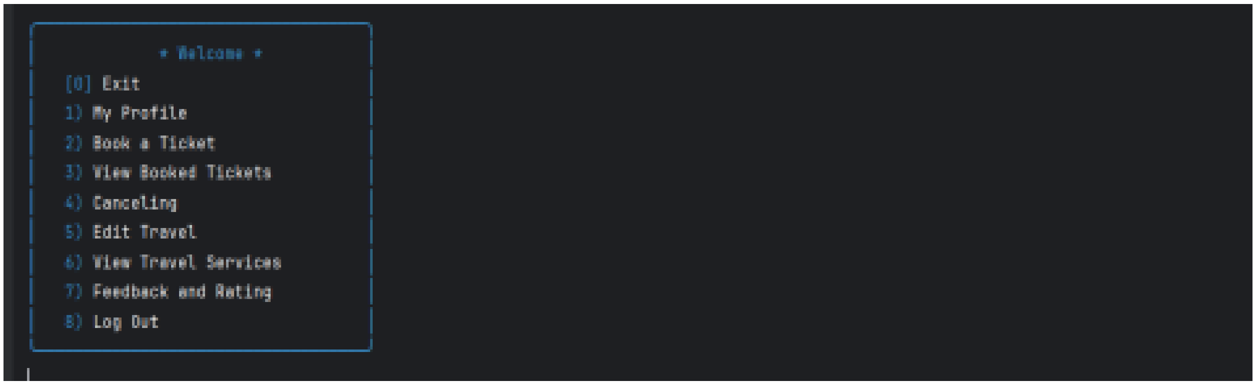
Finally, upon successful login, the view is accessible.



```
       Login

 Username: Laylaahmed
 Password: Layla123##

Login successful!
Directing you to homepage....
```

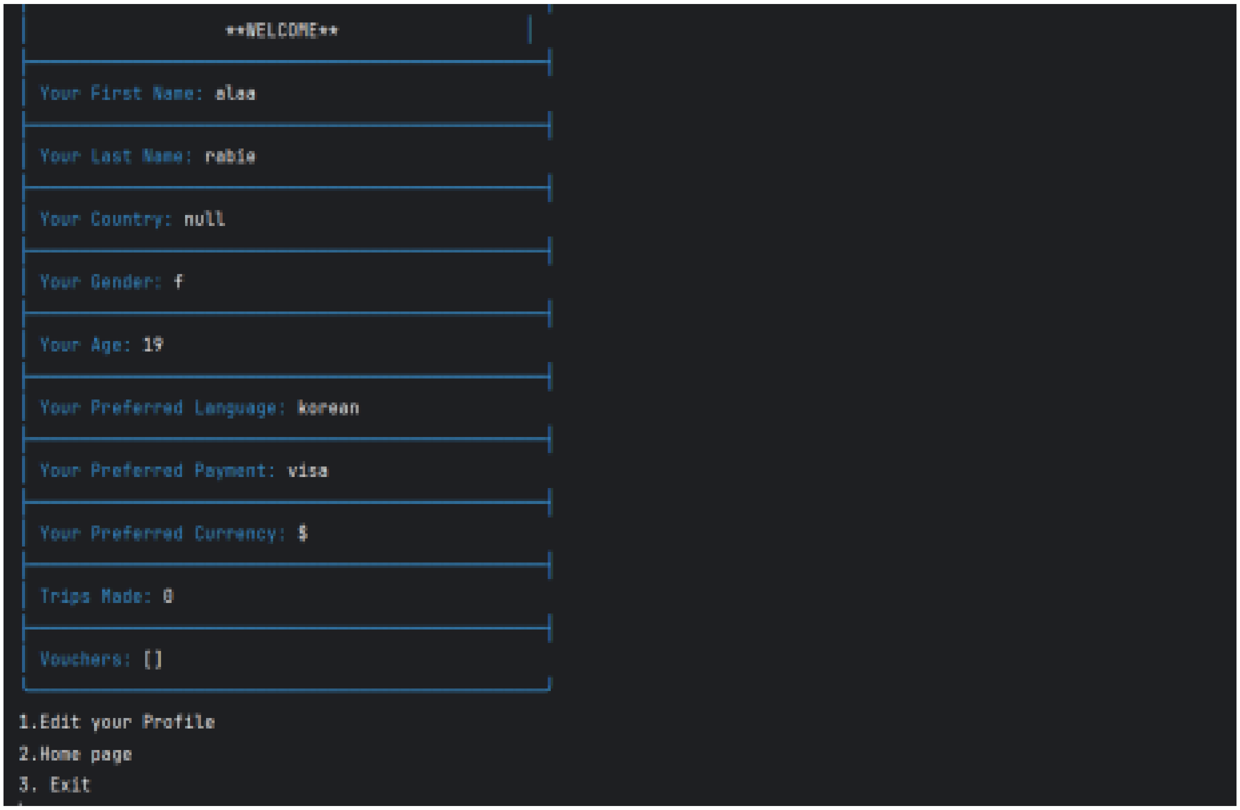
3. HomePage:

Here we provide a menu displaying various options for the customer to interact with, the options are: (Exit, my profile, book a ticket, View booked tickets, Canceling, edit travel, View Travel Servies, Feedback and Rating, Log out).



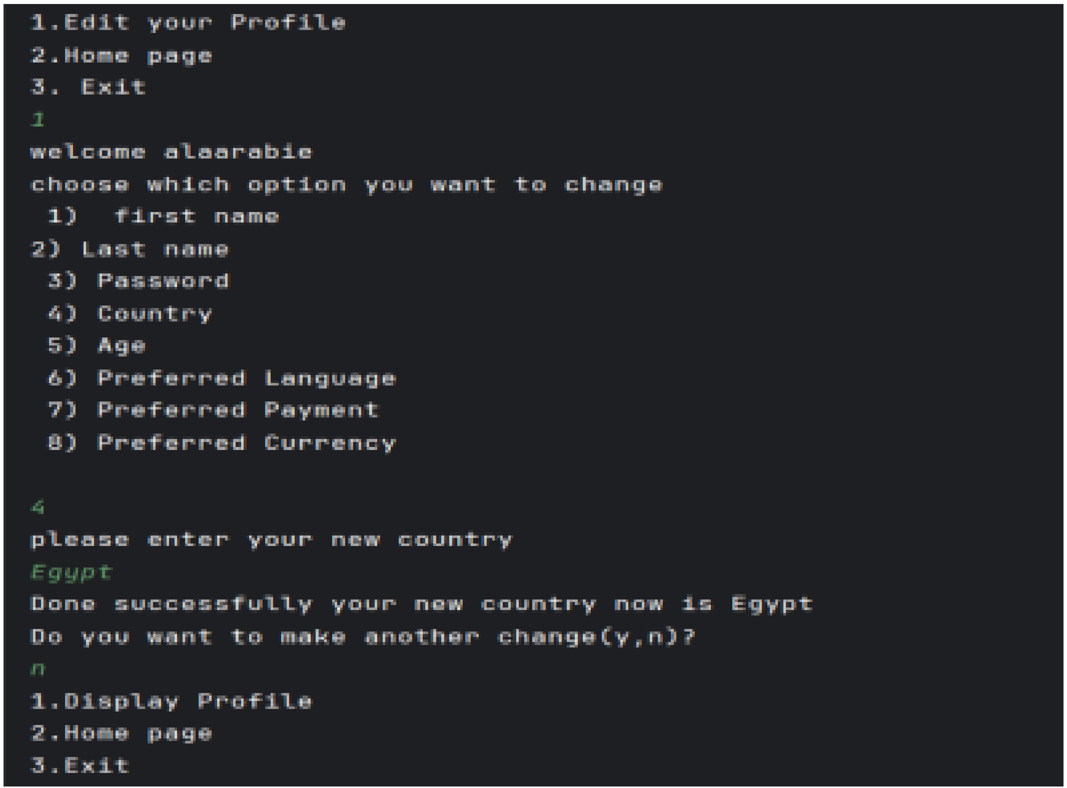
```
* Welcome *
[0] Exit
1) My Profile
2) Book a Ticket
3) View Booked Tickets
4) Canceling
5) Edit Travel
6) View Travel Services
7) Feedback and Rating
8) Log Out
```

Display profile:

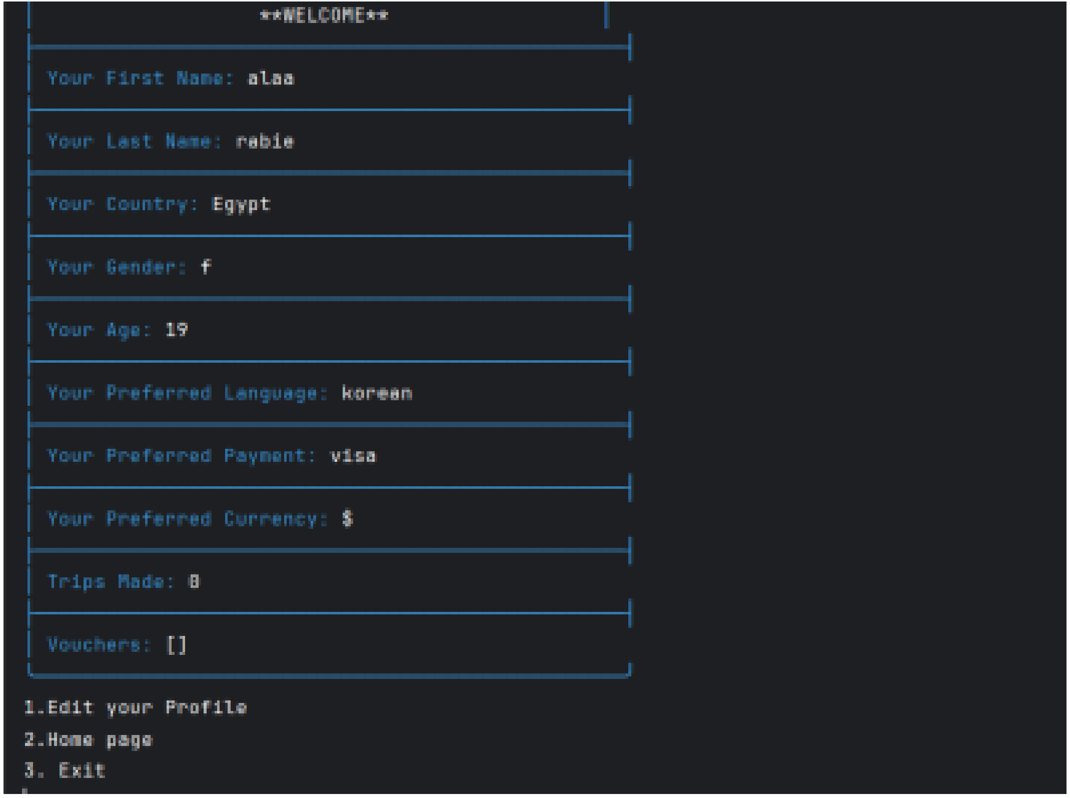


```
**WELCOME**

Your First Name: alaa

Your Last Name: rabie

Your Country: null

Your Gender: f

Your Age: 19

Your Preferred Language: korean

Your Preferred Payment: visa

Your Preferred Currency: $

Trips Made: 0

Vouchers: []

1.Edit your Profile
2.Home page
3. Exit
```

Able to edit any info in their profile.



```
1.Edit your Profile
2.Home page
3. Exit
1
welcome alaarabie
choose which option you want to change
 1)  first name
2) Last name
 3) Password
 4) Country
 5) Age
 6) Preferred Language
 7) Preferred Payment
 8) Preferred Currency

4
please enter your new country
Egypt
Done successfully your new country now is Egypt
Do you want to make another change(y,n)?
n
1.Display Profile
2.Home page
3.Exit
```



```
                **WELCOME**

 Your First Name: alaa

 Your Last Name: rabie

 Your Country: Egypt

 Your Gender: f

 Your Age: 19

 Your Preferred Language: korean

 Your Preferred Payment: visa

 Your Preferred Currency: $

 Trips Made: 0

 Vouchers: []

1.Edit your Profile
2.Home page
3. Exit
```

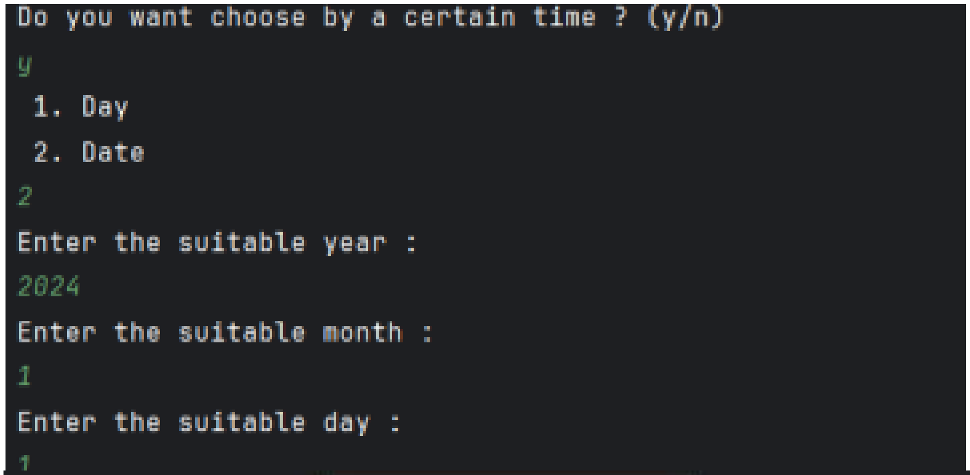
4. bookTicket:

This method is responsible for the process of booking a new ticket in the travel system including booking a trip and other services.

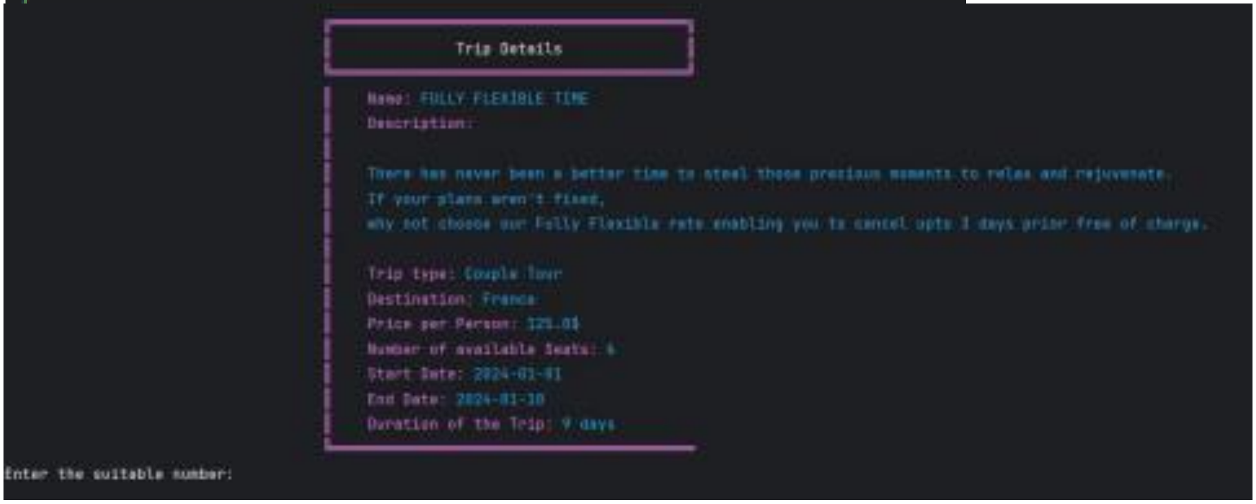
5. bookTrip:

This method provides the process of booking a trip and effectively guides the customer through the process of selecting a destination, tour type, specifying the time (if needed), displaying available trips, and finally, choosing the number of seats for the booked trip. It ensures valid inputs are taken and sets the trip details accordingly in the ticket.

First based on some filtration like date, or no filtration:



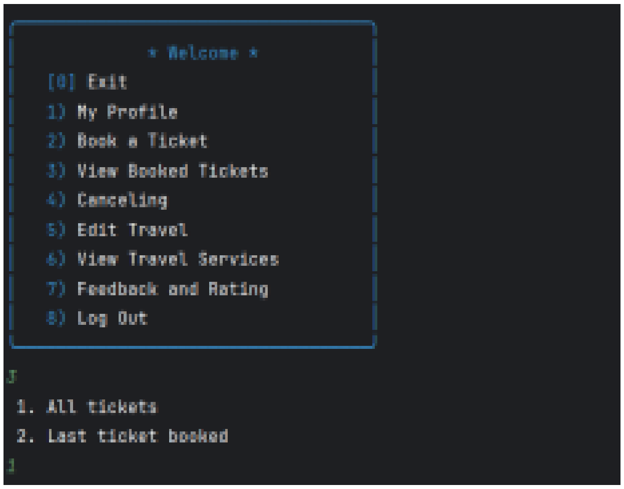
```
Do you want choose by a certain time ? (y/n)
y
 1. Day
 2. Date
2
Enter the suitable year :
2024
Enter the suitable month :
1
Enter the suitable day :
1
```



```
                    Trip Details

        Name: FULLY FLEXIBLE TIME
        Description:

        There has never been a better time to steal those precious moments to relax and rejuvenate.
        If your plans aren't fixed,
        why not choose our Fully Flexible rate enabling you to cancel upto 3 days prior free of charge.

        Trip type: Couple Tour
        Destination: France
        Price per Person: 125.0$
        Number of available Seats: 6
        Start Date: 2024-01-01
        End Date: 2024-01-10
        Duration of the Trip: 9 days

Enter the suitable number:
```

6. View booked tickets:

This method is responsible for displaying all the tickets that the customer booked.



```
            * Welcome *
    [0] Exit
    1) My Profile
    2) Book a Ticket
    3) View Booked Tickets
    4) Canceling
    5) Edit Travel
    6) View Travel Services
    7) Feedback and Rating
    8) Log Out

3
 1. All tickets
 2. Last ticket booked
1
```

7. Canceling:

This method allows the customer to cancel a booked ticket or different aspects of their booked tickets.

8. View Travel Services:

This method is responsible for displaying information about travel services available to the customer, it checks if a discount is available based on the list of trips provided.

9. Feedback and Rating:

Gathers customers’ feedback and ratings for trips that have just ended.

10. Logout:

Lastly, the customer has the option to either log out from the application or exit it entirely.

Customer Interface

Customer Class

Inheritance:

First the customer inherits from the ‘User’ class and implements the ‘CustomerInterface’ and Serializable interface.

Attributes:

Several attributes such as the customer’s country, and the preferred Currency, preferredLanguage, preferredPayment, totaltrips that the customer makes, and various ArrayLists to store tickets, vouchers, saved activities, suitableTrip, and feedback.

Methods:

Constructors and getter/setter methods for the attributes.

1) Edit_Profile:

Overriding the method from the User class.

Here we allow the customer to be able to edit his/her profile information. **Parameters:** Array

Lists of different user types (Admins, Customers, Managers, TourGuides). **Functionality:**

Presents a menu to choose which profile information to change (first name, last name, password, country, age, preferred language, preferred payment, preferred currency) customer can choose from 1 to 8 depending on which option they want to change

Based on the customer's choice, prompts for new information and updates the profile accordingly.

We provide an option for the customer if they want to make additional changes or exit the editing process.

Finally, the function returns 1 if the customer chooses to return to the home page, returns 0 if the customer chooses to exit.

2) compare:

Parameters: takes two object trips.

Functionality:

This method takes two trips as parameters and compare both two trips based on the trip type, start date, end date, available seats, price per seat, and destination, the method returns true if the two trips match in specific attributes, otherwise returns false.

3) Display_Profile:

Overriding the method from the User class.

Parameters: Array Lists of different user types (Admins, Customers, Managers, TourGuides).

Functionality:

Displays the customer's profile information (first name, last name, country, gender, age, preferred language, payment, currency, total trips made, number of vouchers obtained), and provides options like editing the profile, returning to the home page, or exiting.

Based on the customer's choice:

If the customer chooses 1 (Edit your Profile), it calls the Edit_Profile method, and returns the result of the edit action.

If the customer chooses 2 (Home page), it returns 1 to indicate the desire to go back to the Home page.

If the customer chooses 3 (Exit), it returns 0 to exit.

4) HomePage:

Overriding the method from the User class.

Parameters: Array Lists of different user types (Admins, Customers, Managers, TourGuides, Trips).

Functionality:

Here we provide a menu displaying various options for the customer to interact with.

The options are: (Exit, My profile, Book a ticket, View booked tickets, Canceling, Edit travel, View Travel Servies, Feedback and Rating, Log out).

And based on the customer's choice, it invokes different methods or functionalities associated with each option.

The loop continues as long as the customer inputs values within the specified range of options (0 to 8).

When the customer chooses to exit (case 0) or logs out, the loop terminates, and the method returns true for exiting the program or false for logging out.

5)Register:

Overriding the method from the User class.

Parameters: Array Lists of different user types (Admins, Customers, Managers, TourGuides).

Functionality:

This method serves as an interface for customers to input their details, allowing the system to create and store customer profiles within the respective lists for future use.

We take input from the customer, upon receiving input for each field, we use setters to set the respective values for each customer account.

We provide validation such as setting age within a range and confirming the password by using the setPassword method with two password inputs.

6) Is_login_successfully:

This method checks the validity of the customer logging in.

Parameters: String username: Represents the username entered during the login attempt, String password: Represents the password entered during the login attempt., ArrayList<Customer> cust: to store registered customer information.

Functionality:

We use a for loop to go through the list of Customer objects stored in the ArrayList cust. If the provided username and password match the stored data of any customer in the list, it returns the index of that customer, otherwise, it returns -1 to indicate a failed login attempt and try to find the user who's trying to attempt to login in the other arrays.

7) FoundUsername:

This method is responsible for searching for a specific username within an ArrayList of Customer.

Parameters: String username: Represents the username to be found within the list of customers, ArrayList<Customer> Customers: Contains a list of Customer objects, storing

registered customer information.
Functionality:

This method checks if a specific username exists within the list of customers by using (In Stream) operations. It returns either the index of the first occurrence of the username or -1 if the username is not found in the list.

8/9) displayActivities:

Here we are using one of the polymorphism forms -> overloading.

This method allows customers to view and select activities based on trip type, ticket type, and activity type.

The difference between the two methods that one filter based on the trip, ticket , activity type, and the other based on the trip, ticket type only.

Parameters: String tripType: the type of trip (Family, Couple, General), String ticketType: Represents the type of ticket for the activity(Platinum, Gold, Silver), String activityType: the type of activity, int index: the index of the ticket.

Variables: boolean check: A flag used to check the validity of the tripetype the customer provides, ArrayList<Activity> activities: An ArrayList to store activities, Family_Tour f, Couple_Tour c, General_Tour g: Instances of different tour types (Family, Couple, General).

Functionality:

The method starts with a loop, where activities are fetched based on the trip type, depending on the trip type that the customer provides (Family, Couple, General), then we add the activities into the array of activity in the trip type that was selected and based on respective activities are retrieved and stored in the activities list.

Then, it iterates over the activities, checking for a match based on ticket type and activity type. If a match is found, it displays the activity details to the customer with a number for each activity then the customer chooses the activities based on the number of the activity.

It continues to prompt the customer to select activities until they choose (y/n) if they want to choose other activities or not. The selected activities are stored in the savedActivities list.

Finally, we set the activities that in the ticket of a given index to the savedActivities.

Error Handling: the code includes a try-catch block to catch NullPointerException while iterating over activities. If such an exception occurs, it prints the error message.
10) delete_travel_itinerary_By_Name:

This method allows customers to delete activities by specifying the activity name.

Parameters: int index: the index of the ticket where activities need to be removed.

Functionality:

First, we allow the customer to input the name of the activity they want to remove.

Inside the loop: Retrieves the input activity name, it goes through the activities that are associated with the specific ticket of the given index.

For each activity, it checks if the name that was provided by the customer matches the activity name. If found, it removes that activity from the activities list inside the ticket, displays a success message, and exits the method, if no activity matches the input after checking all activities, it displays a "not found" message indicating that the specified activity name is not in the current activities list.

Error Handling: If an exception occurs during this process (for instance, a NullPointerException or any other Exception), it catches the exception and displays an error message.

We also provide an option for the customer to remove another activity or not, depending on the customer's choice.

<u>11) maxBooking:</u>

This method checks if the total trips of the customer that have been made is less than or equal 10 or not. If the total trips were less than or equal 10 we increment the number of trips by 1 and returns true, if the number of trips exceeded 10 then we display a message that the customer has reached the maximum number of trips that can be reserved, and returns false;

<u>12) destinationDisplay:</u>

This method is responsible for displaying a list of destinations and obtaining the customer’s choice to select a destination.

Functionality:

First, we initialize an array by providing a list of destinations, then we display the list, let the customer choose one by inputting the number of the desired destination, and returns the selected destination based on the customer's choice.

<u>13) bookTrip:</u>

This method provides the process of booking a trip and effectively guides the customer through the process of selecting a destination, tour type, specifying the time (if needed), displaying available trips, and finally, choosing the number of seats for the booked trip. It ensures valid inputs are taken and sets the trip details accordingly in the ticket.

Parameters: ArrayList of trip.

Variables: int index of the trip that is being reserved, LocalDate the date of the trip.

Functionality:

First, we ask the customer to select the desired destination (we display the destinations that are available by calling the method destinationDisplay()).

Then, prompts the customer to choose between different tour types: couple, family, or general, sets the selected tour type within the ticket.

Then we provide for the customer if they want to specify a particular time for the trip, if confirmed, it prompts the customer to choose between a specific day or date for the trip, depending on the customer's choice we call the method that filters trips by(day, date), If the customer doesn't want to choose by a certain time, then we call the displayTrip method to filter and display available trips based on the destination, tour type, and optionally, the specified time.

Presents the available trips to the customer and prompts them to select a suitable trip by its number, then we ask the customer to input the number of seats they wish to book for the chosen trip, sets the number of seats for the booked trip in the ticket.

14/15) displayTrip:

Here we are using one of the polymorphism forms -> overloading.

This method serves the purpose of filtering and displaying trips based on specific criteria.

The difference between the two methods is that one filters based on the trip type, destination, and date, and the other based on the trip type, and destination only.

Parameters: date: The date that the customer wants for the trip, destination: The destination of the trip, tourType: The type of tour (couple, family, general) to filter the trips.

Functionality:

Initializes a count variable to track the number of suitable trips found.

Attempts to filter the Trips using streams, filters trips based on the provided date, destination, and tour type by the customer, for each matching trip found, it adds the trip to the suitableTrip ArrayList and displays its details, finally, we allow the customer to enter the suitable number of the desired trip in a specified range from the displayed list, then the method returns the number that the customer has choosed for farther processing.

Error Handling:

We handle the NullPointerException if no trips are found for the specified criteria that the customer wanted.

16) isTripFound:

This method checks whether a trip exists within the ArrayList.

Parameters: t1: the trip to be checked for existence within the list, Trips_system: The ArrayList containing trips.

Functionality:

performs a search processing through the trip list, within each iteration, it calls the compare method to check whether the details of the trip provided by the customer match the details of any trip in the list, if such a trip is found at any point during the iteration, it returns true, otherwise, it returns false.

17) dayDisplay:

This method is responsible for displaying a list of days and obtaining the customer's choice to select a day.

Functionality:

First, we initialize an array by providing days of the week, then we display the list, let the customer choose one by inputting the number of the desired day, and returns the selected day based on the customer's choice.

18) expiredTicket:

This method aims to remove tickets that have expired based on the current date.

Functionality:

First, it retrieves the current date, iterates through each ticket in the tickets list, for each ticket, it checks if the end date of the current trip matches the current date, if a ticket's trip end date matches the current date, it attempts to remove that ticket.

19) viewBookedAllTicket:

This method is responsible for displaying all the tickets that the customer booked.

Functionality:

First, we call the expiredTicket() method to remove any expired tickets, then checks if the tickets list is empty. If there are no tickets, it prints a message that says no tickets have been booked yet, if there are tickets, it iterates through the tickets list and displays each ticket's information.

The method returns -1 if the user chooses to return to the home page, and 0 if the user chooses to exit the view of booked tickets.

20) CheckDiscount_tickect:

Parameters: ArrayList of trips.

Functionality:

This function is responsible to check if a customer has a discount or not, the customer will get a discount if they booked two trips with two different destinations, by using file stream map to get the destination of the trips that the customer booked, if it finds two different destinations it counts them, if the count was greater than 2 then the customer will have a discount and the method will return true, if not it will return false.

21) viewTravelServices:

This method is responsible for displaying information about travel services available to the customer, it checks if a discount is available based on the list of trips provided.

Parameters: ArrayList of trips.
Functionality:

First, the method calls CheckDiscount_tickect() to check if the customer has a discount or not.

If the customer has a discount, we display a message indicating the availability of a discount, then create a new Voucher object and add it to the vouchers array of the customer, then we display the vouchers' details, if the customer doesn't have a discount, then it prints a message to inform the customer, then it provides a menu with two options: Home page or Exit.

If the customer chooses the Home page (input 1), the method returns –1, if the customer chooses to Exit (input 2), the method returns 0.

22) displayRating:

This method is designed to visually represent a rating based on an average rating score provided as input.

Parameters: int avgRate as an average rating score.

Functionality:

Prints a visual representation of the rating using a series of (*).

23) inputRate:

This method aims to collect and update the rating for a trip that has just ended based on customer's rating.

Parameters: ArrayList of trips that the customer booked.

Functionality:

First, we get the current date to identify the trips that have ended today, then iterates through the list of the trips to find trips that have their end date matching the current date, then ask the customer to input a rating for the found trip from 1 to 5, It retrieves the trip's average rating and multiplies it by the number of ratings already given(excluding the entered one), adds the new customer rating to the sum and then divides it by the total number of ratings (including the new one) to calculate the updated average rating, sets the updated average rating for the trip and displays it, and exit from the loop.

24) feedback:

Gathers customers' feedback and ratings for trips that have just ended on the current date.

Parameters: ArrayList of trips that the customer booked.

Functionality:

Iterates through the tickets to find tickets whose trips have their end date matching the current date, if a ticket with a trip ending today is found, it allows the customer to input their feedback, then adds the entered feedback to the feedback list of the customer, also allows the customer to input a rating by calling the inputRate() method.

25) editTrip:

This method allows the customer to be able to edit the trip details.

Parameters: int indexOfTicket the index of the ticket with that has the current trip, ArrayList trips.

Functionality:

First, it provides a menu to let the customer choose from it which detail they want to edit from 1 to 4, type of Trip: Allows customers to update the trip type and destination and checks if the new update exist in the trip list(the updated trip must exist in the trip list), also enables customers to adjust the number of seats booked for the trip takes customer input for the new number of seats, the functionality of the updating the number of seats, checks if the new number is less than the current booked seats, if yes, it increases the available seats by the difference between the current number of the seats and new one, updates the number of seats for the trip, displays a success message, checks if the new number exceeds the current booked seats, if yes, checks if the requested seats are within the available seats for that trip, if available, reduces the available seats by the difference between the new and current seat count, if the requested seats exceed availability, we allow the customer to reenter another number of seats.

Handles scenarios where the new number of seats equals the current booked seats or if unexpected input is provided.

allows customers to modify the trip's start date and validates if trips are available on the new date, after each edit, it checks the ability of the changes and provides feedback on successful or unsuccessful modifications, it also allows the customer if they want to continue editing after making changes.

26) bookTicket:

This method is responsible for the process of booking a new ticket in the travel system.

Parameters: ArrayList of trips that has been added by the manager.

Functionality:

First, it verifies if the maximum booking limit hasn't been reached. If it does, the booking process won't continue, if not, it proceeds to book a new ticket.

Then it creates a new Ticket object and adds it to the list of tickets, it calls the bookTrip(Trips_system) method to collect details of the trip for the newly created ticket.

Then it displays a menu of ticket types to allow the customer to select from (Silver, Golden, or Platinum), depending on the customer's choice we set the ticket type to the type that the customer chooses.

then it displays a menu with various choices to allow the customer to add various services to their ticket, such as activities, flight booking, car rental, hotel booking, or finishing the booking.

It also allows the customer to be able to continue adding other services if wanted, finally, asks for confirmation before finalizing the ticket, if confirmed, updates the ticket with customer location, generates a confirmation number, displays ticket details, if not confirmed, removes the last added ticket and informs the customer that the ticket was not saved.

After completing the booking or reaching the maximum bookings, it provides options to go back to the home page return -1 or exit returns 0.

27) editTicket:

This method allows customers to modify specific details of their booked tickets.

Parameters: ArrayList of trips that has been booked by the customer.

Functionality:

It calls the viewBookedAllTicket(), to display all the tickets that has been booked, then let the customer choose the number of the ticket they want to edit, then it offers options to edit different aspects of the ticket: Trip details (type, destination, seats, date), Activity type, Hotel bookings, Car rentals, Flight bookings, based on the customer choice we call the method of the selected number to perform the editing, after each edit operation, the customer is asked if they want to continue editing other tickets or not

After completing the editing, it provides options to go back to the home page return -1 or exit returns 0.

28) canceling:

This method allows the customer to cancel a booked ticket or different aspects of their booked tickets.

Functionality:

It calls the viewBookedAllTicket(), to display all the tickets that has been booked, then let the customer choose the number of the ticket they want to cancel or cancel some services in the ticket, presents options for the customer to choose what they want to cancel:

Ticket: Cancels the entire ticket and associated services.

Activity: Deletes the selected activity from the itinerary.

Flight: Cancels the flight booking associated with the ticket.

Car Rental: Cancels the car rental associated with the ticket.

Hotel: Cancels the hotel reservation associated with the ticket.

After each cancellation, the user is asked if they want to cancel anything else.

Once the customer is done canceling, they are provided with options to return to the home page returns –1 or exit returns 0.

29) inputDate:

This method allows customers to input the suitable date.

Variables: array of month_value, Localdate of Suitable_date.

Functionality:

We take first input from customer (suitable year) within a range (local year: 2040), "We check if the input of suitable year is a leap year or not, to change the month_value[1] "

then take the second input (suitable month) within a range, if suitable year is a local year --> range of second input (local month: 12), else (1: 12).

Finally, we take the third input (suitable day) within a range, if suitable month is a local month - -> range (local day: number of days for this month), else (1: number of days for this month) and save these inputs as a localdate type, then we return suitable date

30) calender_date:

This method calculates the date of the next occurrence of a specific day of the week based on the current date.

Parameters: String day_name.

Functionality:

Takes the day we need to know the next closest date to, by using an algorithm, by determining the current day of the Week, and handling leap years, the trying to Find the Desired day of the week, and finally, returns the desired date as a local date.