Habib University
shaping futures

CS355 – Database Project Proposal Form

Section 1: Metadata

to be filled by the student

1.1. Project Information to be filled by the student

Title: VENUE MAESTRO (Banquets Management System)	
Section: L1	Instructor: Umer Tariq

1.2. Student(s) Information

Name: Syed Muhammad Kazim Raza	ID: sr09142
Section: L1	Batch: 2027

Name: Abdul Karim	ID: ak08731
Section: L1	Batch: 2027

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Section: L1	Batch: 2027

Submission guideline: Save your project proposal as a pdf file and rename as Project Proposal_L1_ProposedTitle where L1 is to be replaced with your section

Section 2: The Project

to be filled by the student

2.1. Project Description: *Please provide a brief introduction of the project including its scope.*

How effectively do I communicate project goals and scope?

For my project, Venue Maestro, I clearly outline the goals and scope by focusing on several key aspects:

1. **User Roles and Capabilities**: I define two primary user roles—owners and customers. Each role has specific capabilities, such as owners being able to manage halls and bookings, and customers being able to book halls. This clear delineation helps in understanding the system's functionality and user interactions.
2. **Automation of Data Processes**: My project aims to automate data processes, which is a crucial goal for improving efficiency. By automating tasks like booking management and data storage, the system reduces manual effort and minimizes errors.
3. **Efficient Data Storage and Retrieval**: I emphasize efficient data storage and retrieval to ensure that the system can handle large volumes of data seamlessly. This is essential for maintaining performance and reliability.
4. **Scalability and Flexibility**: The project scope includes the ability to add and edit halls, indicating that the system is designed to be scalable and adaptable to changing needs.

How is my project useful in addressing real-world issues and what impact can it potentially have?

Venue Maestro addresses several real-world issues and has the potential to make a significant impact:

1. **Streamlining Operations**: By automating the booking and management processes, the system helps venue owners streamline their operations. This leads to better resource management and increased efficiency.
2. **Enhanced User Experience**: For customers, the ability to easily book halls and manage their bookings online improves their overall experience. This convenience can lead to higher customer satisfaction and repeat business.
3. **Data-Driven Decisions**: With efficient data storage and retrieval, venue owners can access valuable insights and analytics. This data can be used to make informed decisions, such as optimizing pricing strategies or identifying popular booking times.
4. **Reducing Administrative Burden**: Automating routine tasks reduces the administrative burden on venue owners, allowing them to focus on more strategic activities. This can lead to better business outcomes and growth.
5. **Scalability**: The system's ability to handle multiple venues and bookings makes it scalable for different sizes of businesses, from small banquet halls to large event venues.

Overall, Venue Maestro has the potential to transform how banquet halls and event venues operate, making the process more efficient, user-friendly, and data-driven.

2.2 Functional Requirements

This section describes each function/feature provided by your system. These functions are logically grouped into modules based on their purposes. The users in your system must be categorized such as client, customer or administrator etc. These users will be accessing the database with the level of access that they are authorized with.

Sample functional Requirements:

Module 1: Registrations

• Function 1: Register an account

The system lets users register an account on the website as a client and as a customer.

– Function 1a: Register as a client The register form prompts the user to enter their details i.e. Name, Email, Password. The form is submitted and an unverified client account is created. The user receives a link on their email address which completes account verification.

– Function 1b: Register as a customer The register form prompts the user to enter their details i.e. Name, Email, Password. The form is submitted and an unverified customer account is created. The user receives a link on their email address which completes account verification.

Module 2: Buying and Selling

• Function 1: Only client type users can upload item(s) to sell .A registered client can upload an item to sell through the mobile application. The system prompts the client for item photos, item category and item details and the item is added to the item inventory.

• Function 2: Add item to cart. A certain button on the item page prompts the system to add the item to the user’s cart. All consequent item(s) added without checkout, are added to the same cart unless cleared.

• Function 3: Clear item from cart .The system allows the user to remove a previously added item from the cart. If cart is empty, the checkout link is no longer accessible.

Module 1: Registrations

• Function 1: Register an account

The system lets users register an account on the website as a banquet owner and as a customer.

– Function 1a: Register as a banquet Owner. The register form prompts the user to enter their details i.e. Name, Email, Password. The form is submitted and an unverified client account is created. The user receives a link on their email address which completes account verification.

– Function 1b: Register as a customer. The register form prompts the user to enter their details i.e. Name, Email, Password. The form is submitted and an unverified customer account is created. The user receives a link on their email address which completes account verification.

Module 2: Managing Halls and Bookings by Owners

• Function 1: Owner can edit and Add Halls

– Function 1a: Only the owner type users can use this module to add any new halls, with all relevant details including price type, name, province, city and Area. The pictures of the halls are also added.

– Function 1b: Only the owner type users can use this module where they can also choose to edit the information of the existing halls by selecting the desired hall that needs an update.

• Function 2: Owner Can Manage the bookings made by customers

– Function 2a: Only the owner type users can use this module, where they can see the bookings made by the customer for any specific hall, the details would include, time, name of hall, name of customer, price, city and Area. The owner is able to change the booking or cancel it in case of an emergency.

– Function 2b: The owner can also update the table of bookings that is being displayed in case a customer has cancelled a booking or changed the timings of the hall already booked.

Module 3: Booking and Managing Hall Bookings by customer

• Function 1: The customer can book a hall as per their requirements.

– Function 1a: Only the customer type users can use this module to book a new hall, with a range of relevant filters to cater the customer's requirements such as province, city and area. As the user enters the criteria a table of relevant halls is shown having basic information such as price type, name, province, city and Area

• Function 2: Customer Can Manage their hall bookings, or cancel it.

– Function 2a: : A user is also shown a form with a calendar of available dates for any hall selected by the customer in order to select the most suitable time and date slot. Once the user proceeds with the desired date a message box is displayed to the user in order to confirm the time of the day and an agreement to privacy policy.

– Function 2b: Only the customer type users can use this module, where they can see their bookings made a hall. This form allows the user to basically cancel their booking if required or make changes to the specific booking made.

2.3. Planned Schedule: *Kindly list the start/end dates and the timeline for the achievement of any intermediate milestones and the expected contribution to be made by the participant(s).*

Week 4 to Week 12 => we will implement all of the functionalities of one user type atleast and will try our best to start on the second one also.

Week12 to Final submission => We will complete our project by making all the functionalities of the second user type as well and interlinking their databases with each other.

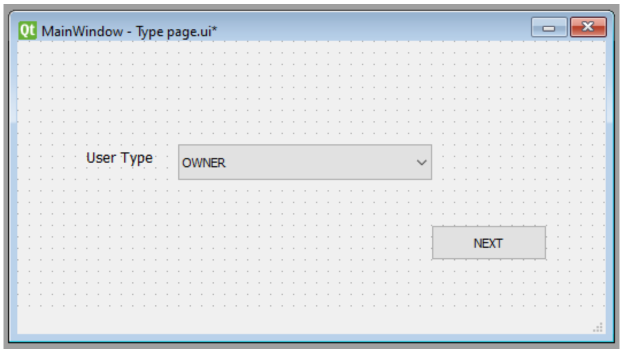
We will divide our work in a way that every one would have an equal contribution like for example Owner user type can be handled by 1st member, Customer user type can be handled by the 2nd member and the the interlinking of their databases or any other work would be handeled by last member.

2.4. Technology Stack: *If you are utilizing any language or database besides PyQt and SQL Server, please complete this section; otherwise, leave it blank. Specify the programming language and database management system intended for constructing this application, as well as the application type (Desktop, Web, or Mobile).*

2.5. Screens: *Provide images of all application screens, showcasing clear input and corresponding outputs. Ensure each image includes a concise caption explaining user action and expected/observed output. You can create these screens using Qt Designer.*

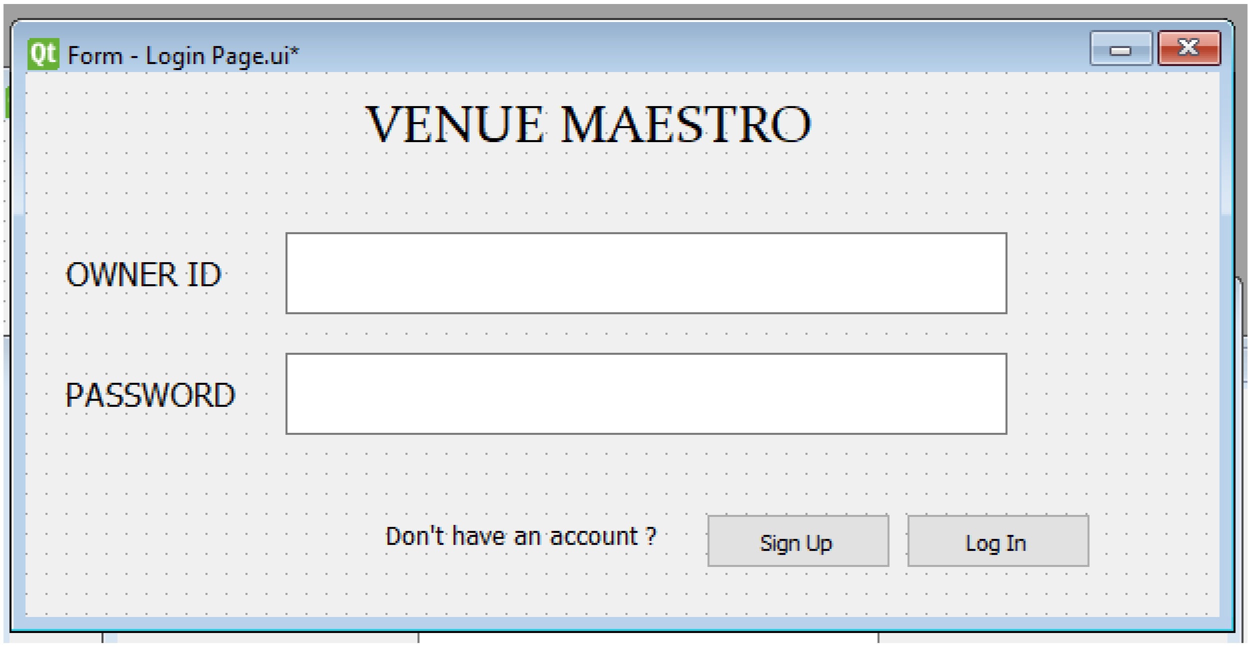
Function 1: (Registrations) The user preference will be asked first and the person have to select between the owner and customer. After that the login screen will appear if the user doesnot have any account so he/she has to signup and make his/her Login ID and password.

For Owners:

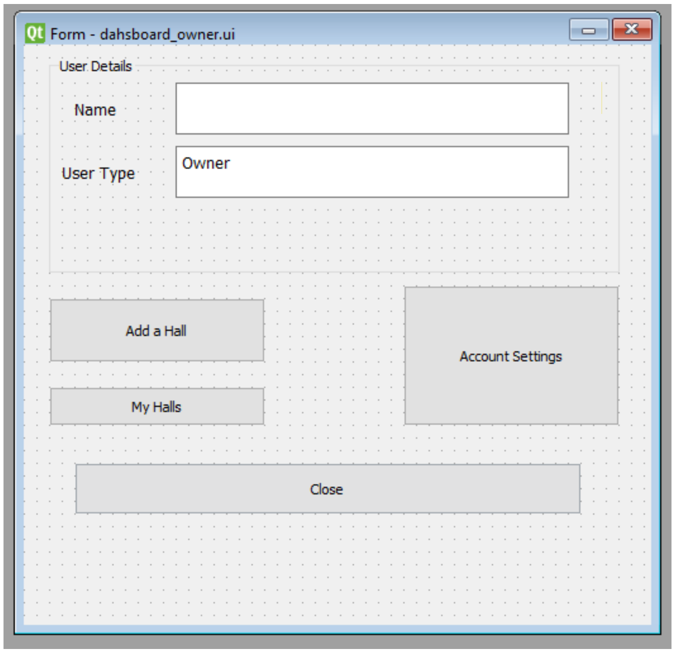


User Type: OWNER

After clicking the next button :

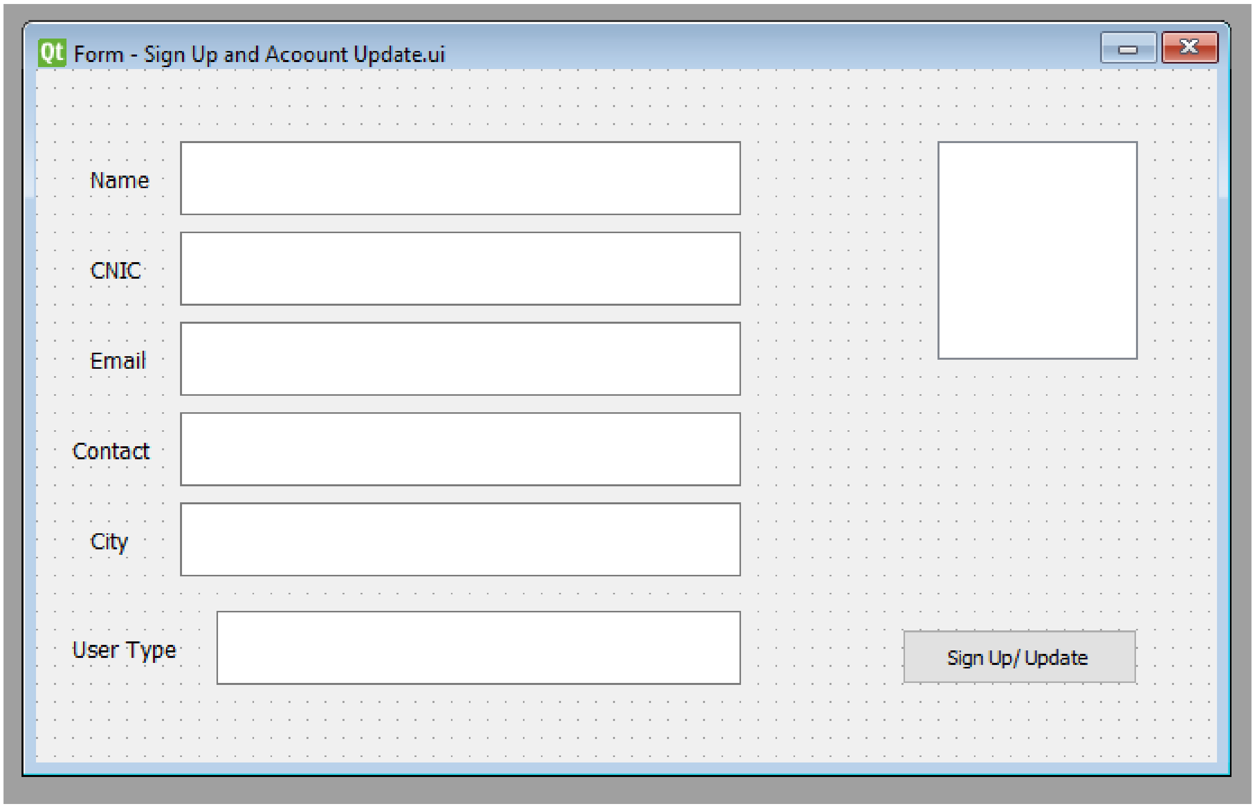


IF Owner has an account so he /she will login and they will be redirect to the dashboard:

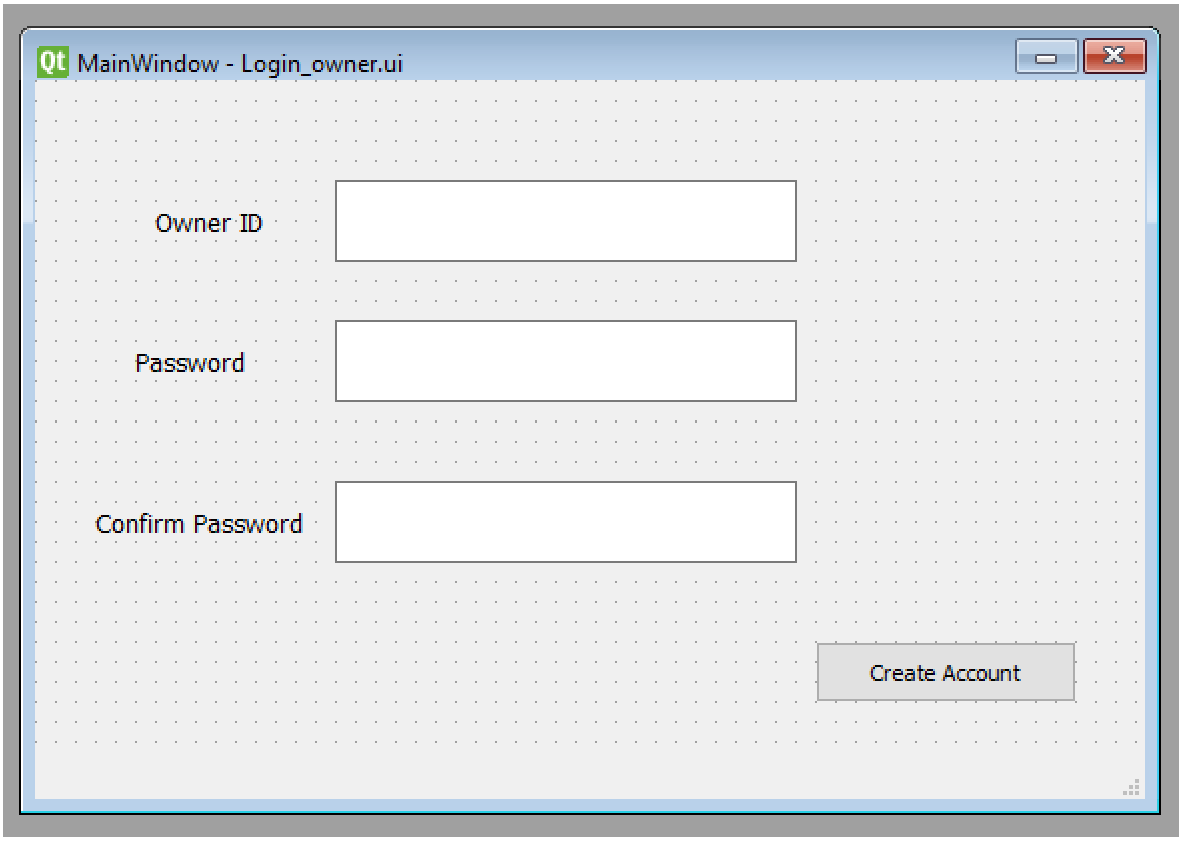


Owner

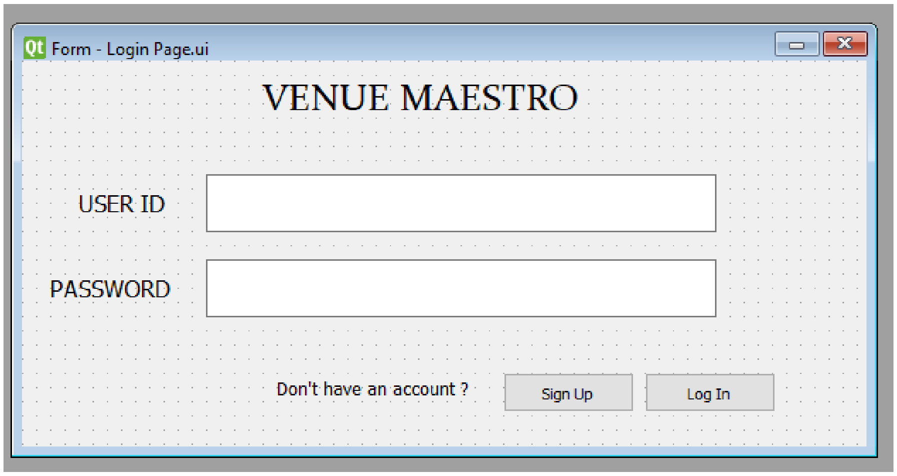
IF owner doesnot have and account so they can signup:



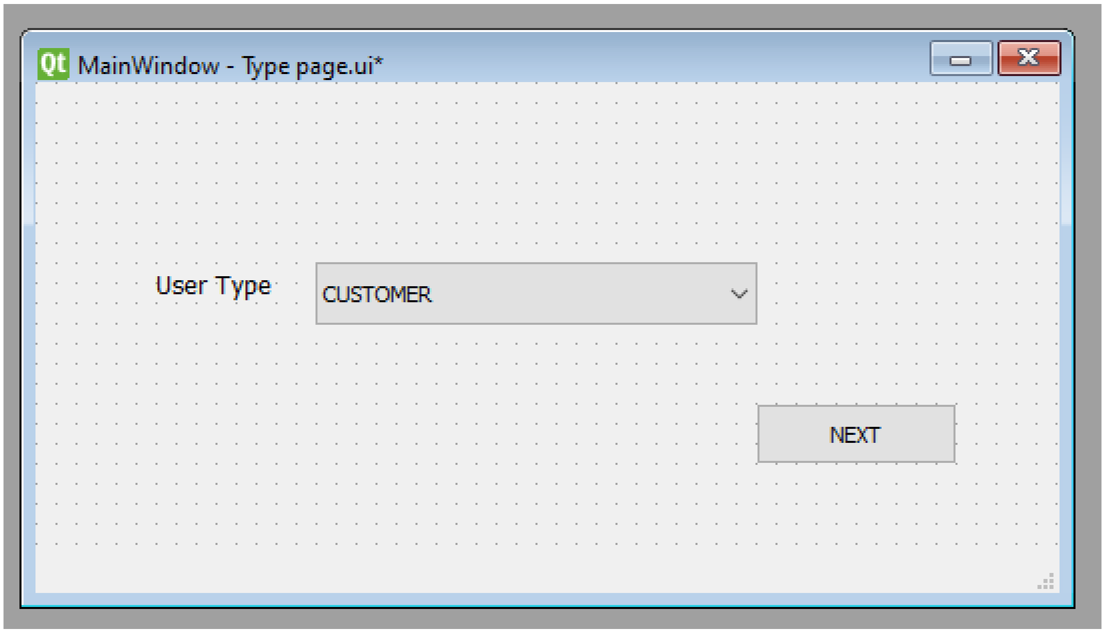
After that confirmation page will open:



After pressing “Create Account” the account will be created successfully and now user can now login so the user will be redirected again on login page:



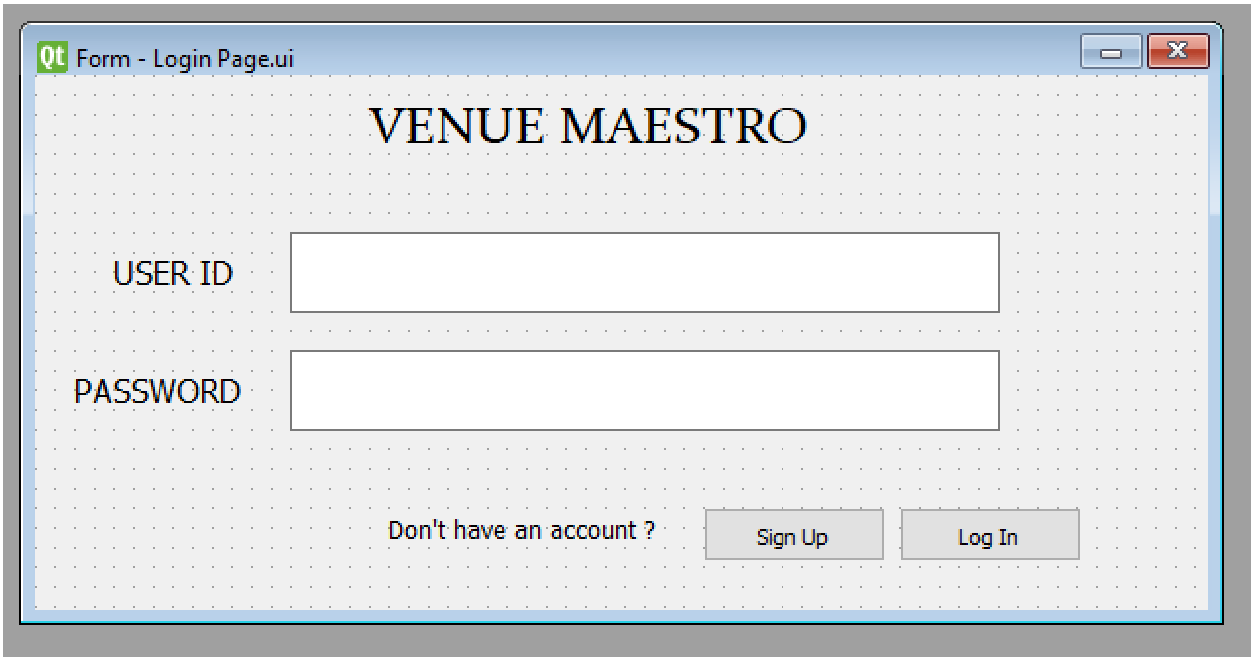
For Customers:



MainWindow - Type page.ui*

User Type CUSTOMER

After clicking the next button :



Form - Login Page.ui

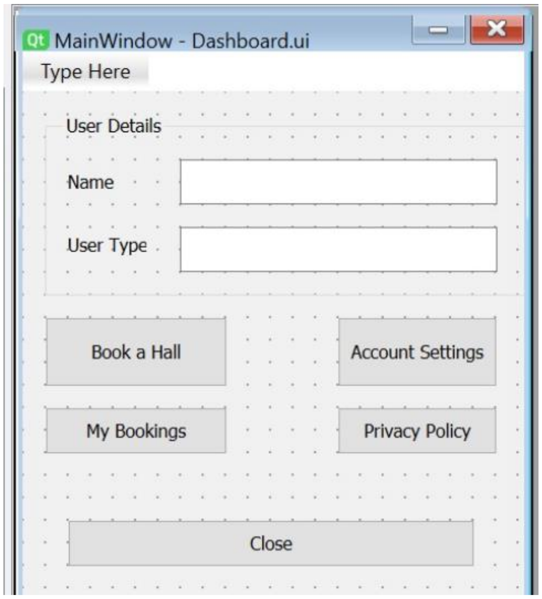
VENUE MAESTRO

USER ID

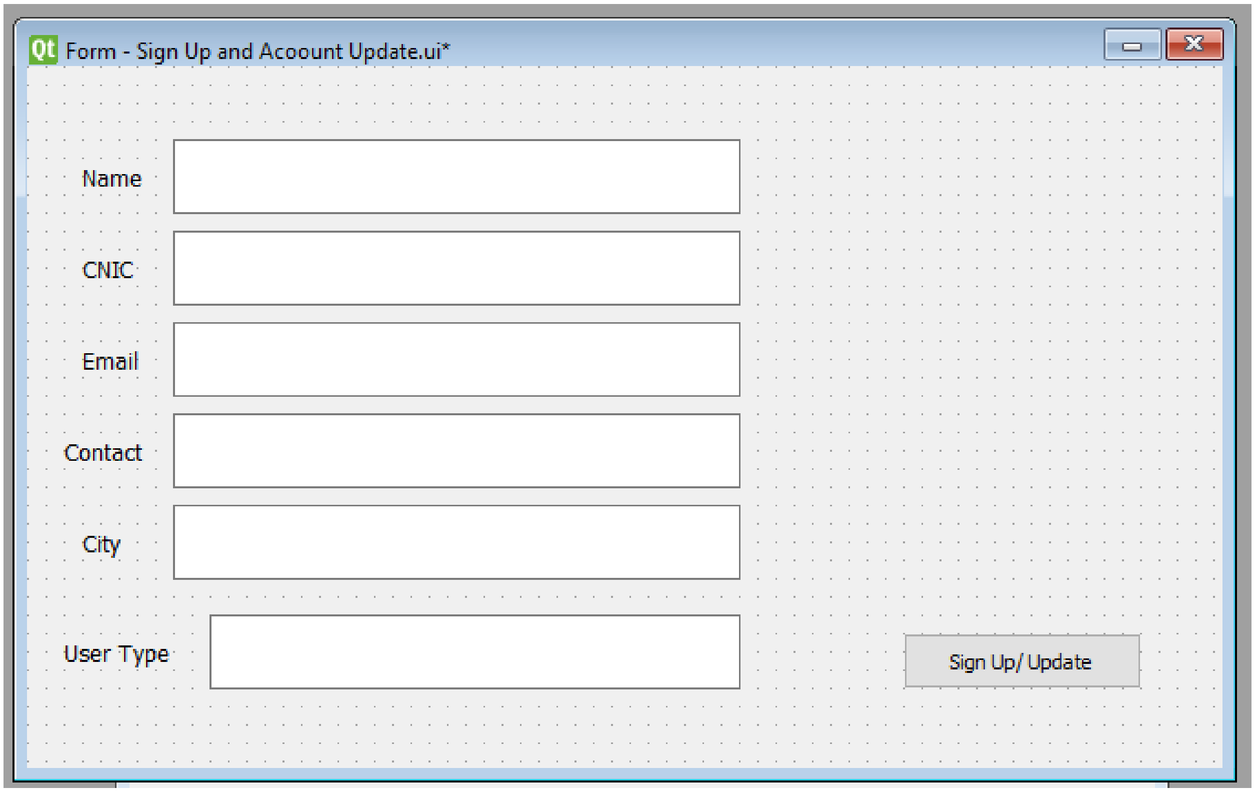
PASSWORD

Don't have an account ?

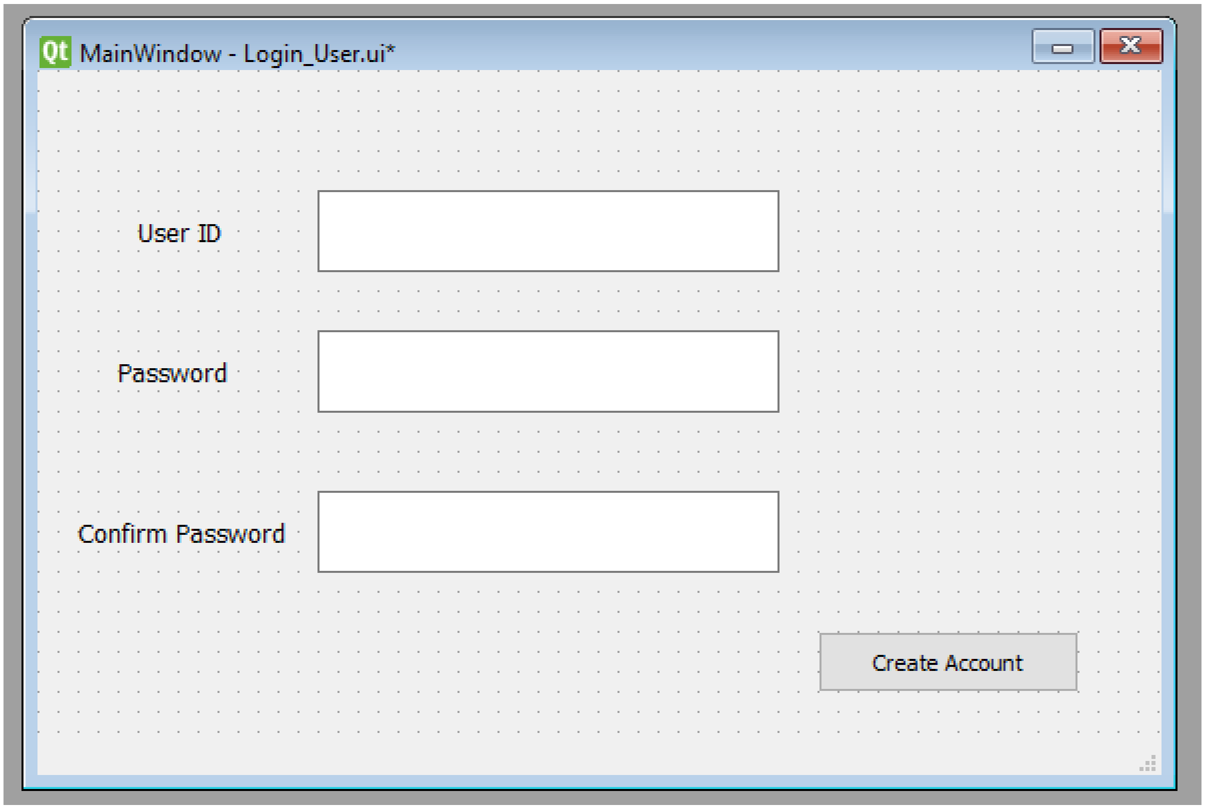
IF customer has an account so he /she will login and they will be redirect to the dashboard:



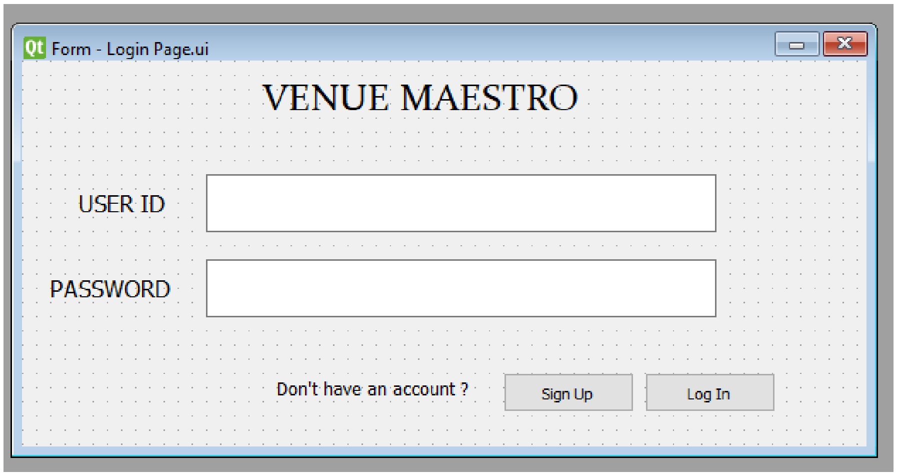
IF customer doesnot have and account so they can signup:



After that confirmation page will open:

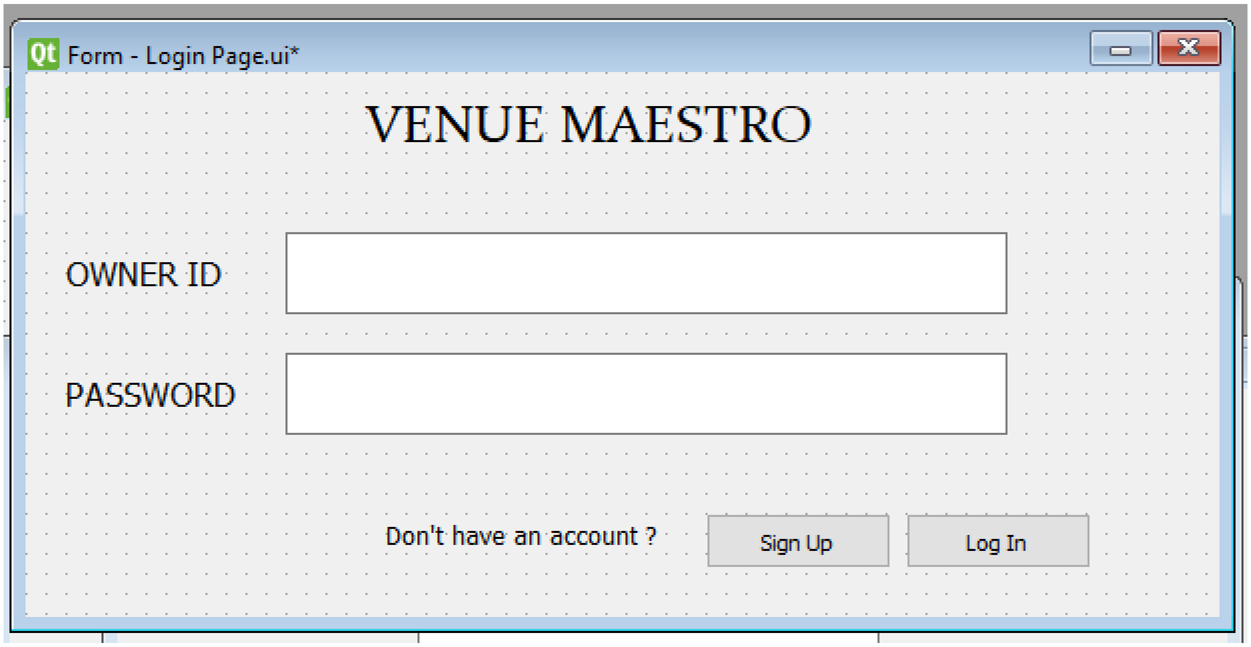


After pressing “Create Account” the account will be created successfully and now user can now login so the user will be redirected again on login page:

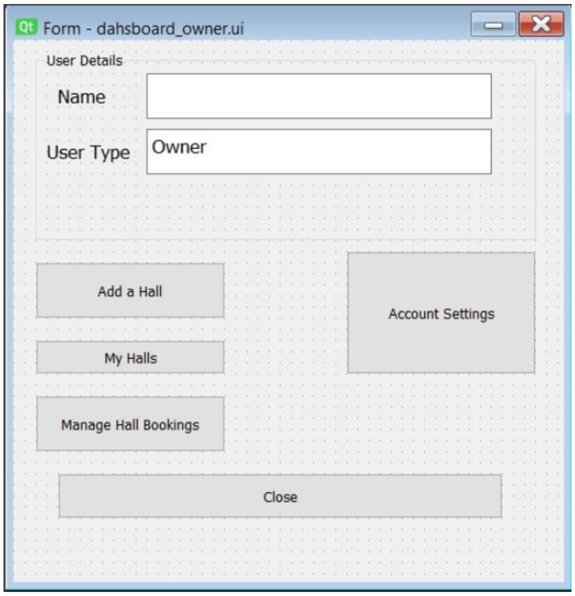


Function 2: (Adding a Hall) The owner type user could add a hall only

The owner will login :

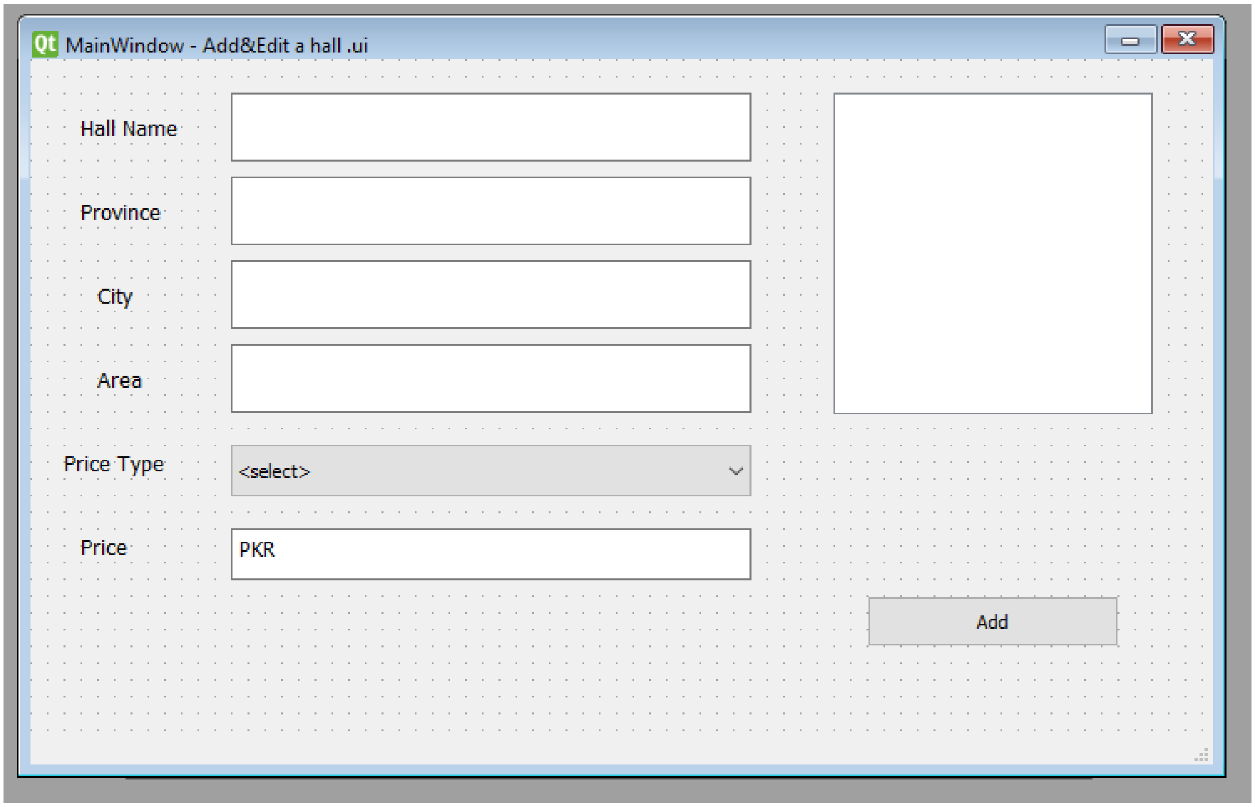


After that dashboard will be opened:



User Type: Owner

Here “Add a Hall” option is shown so user will click it:

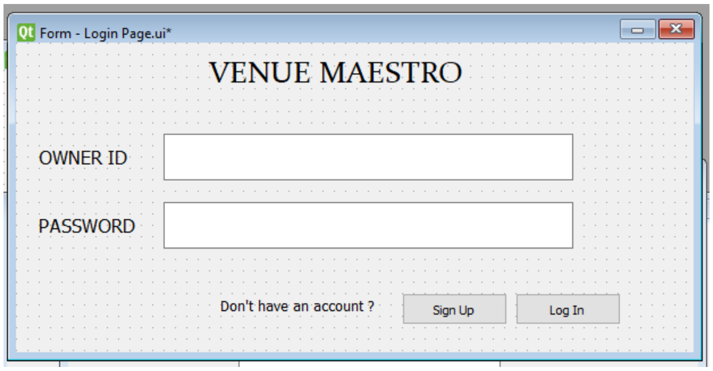


The owner now can add a hall

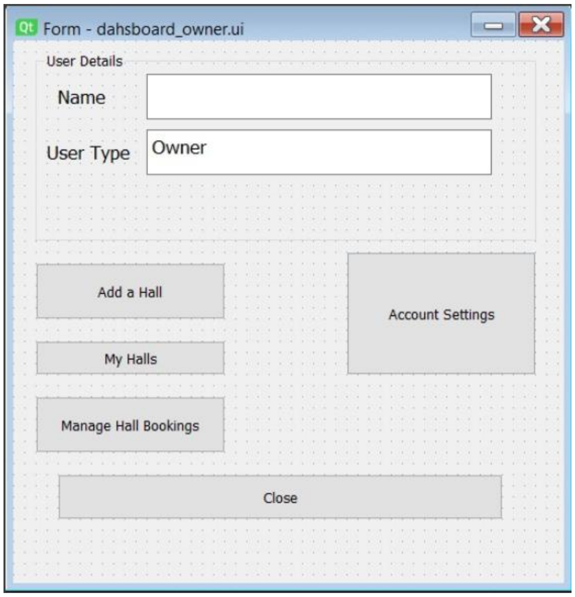
Function 3: (Managing Halls and Bookings) The owner type only could manage the halls and manage the bookings of the customer:

For managing Halls:

The owner will login first:



After that dashboard will be opened:



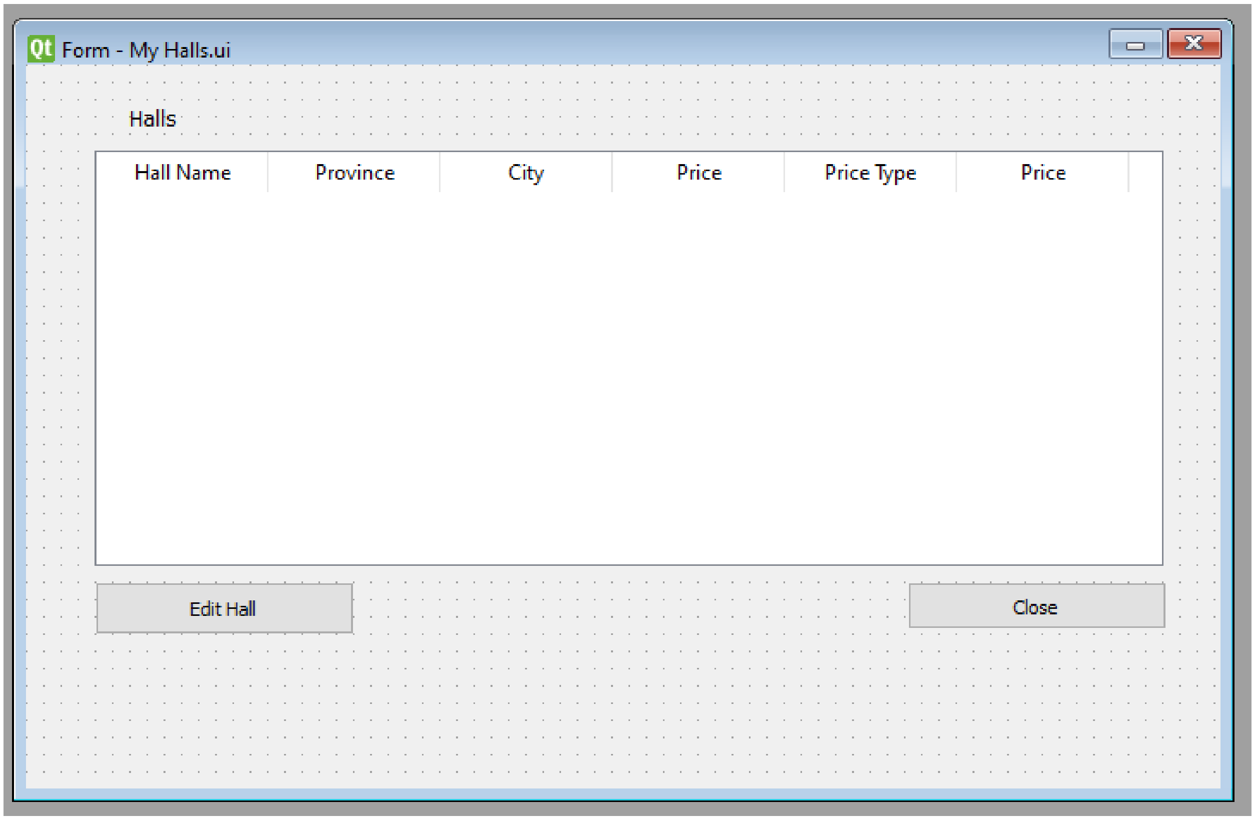
Form - dahsboard_owner.ui

User Details

Name:

User Type: Owner

Here the “MY Halls” is shown the use will click it:

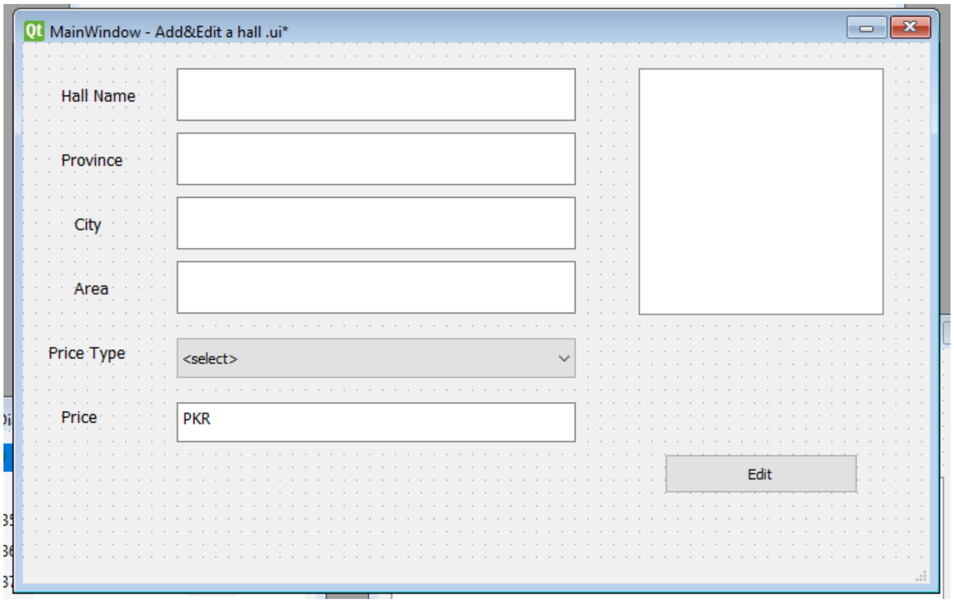


Form - My Halls.ui

Halls

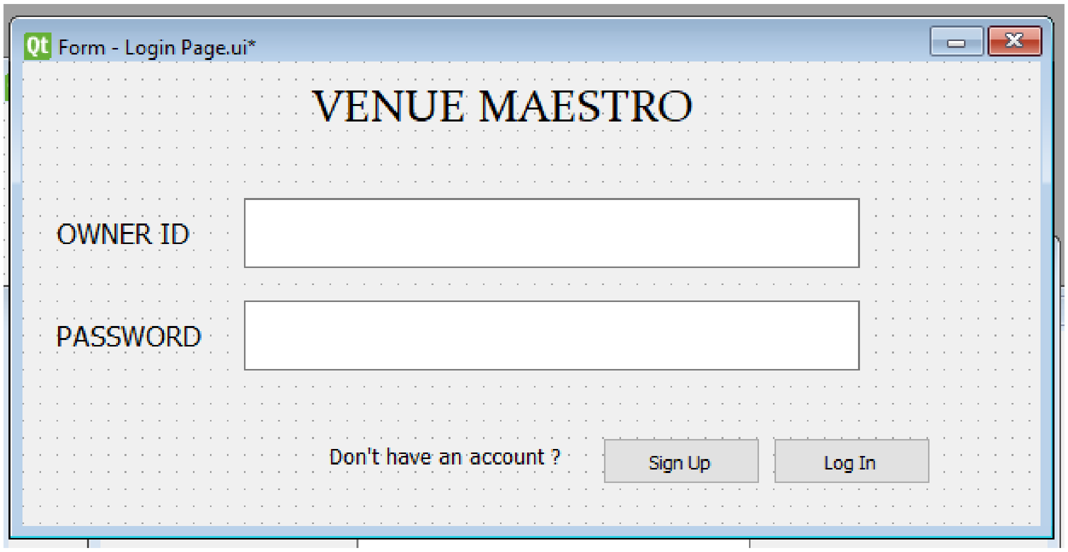
Hall Name	Province	City	Price	Price Type	Price

Here all the banquets and halls of the owner will be showed up if he wants to edit he can select any and click “Edit Hall” he will redirect to this:

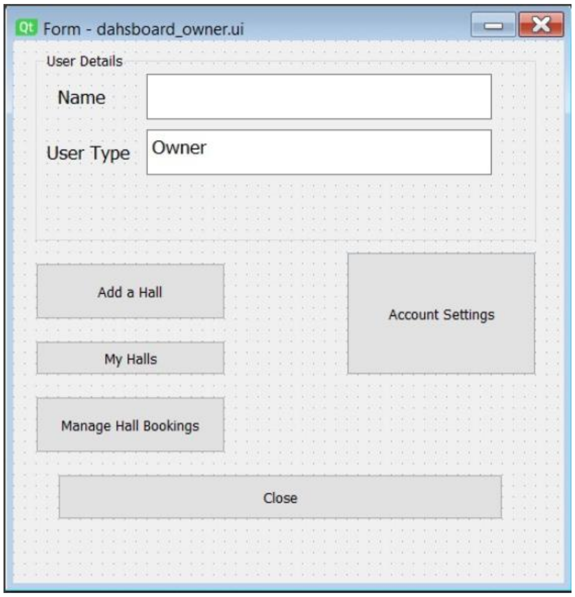


For Bookings:

The user will first login:



After that the dashboard will be opened:



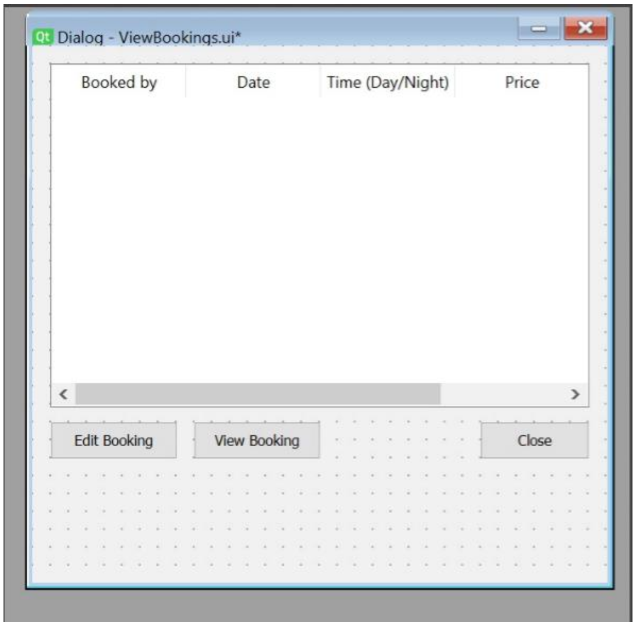
Form - dahsboard_owner.ui

User Details

Name

User Type: Owner

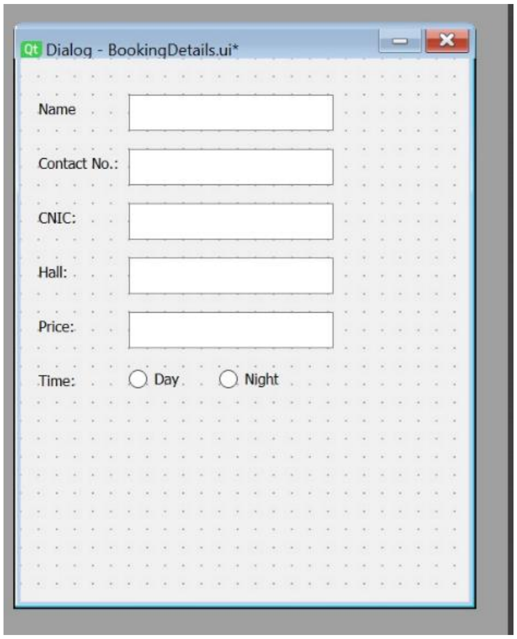
The owner will click the “Manage Hall Bookings”:



Dialog - ViewBookings.ui*

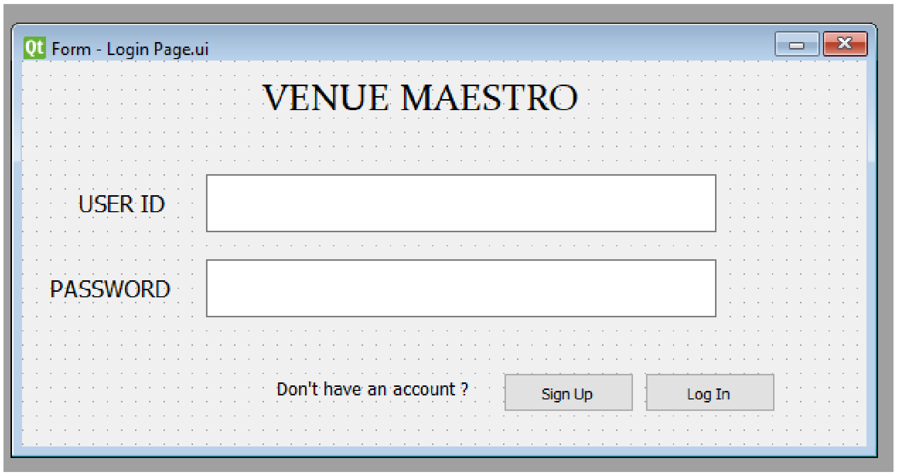
Booked by	Date	Time (Day/Night)	Price

On clicking “Edit Booking” this screen will be shown where owner can edit and
On clicking “View Booking” this screen would be read only the owner can not edit it

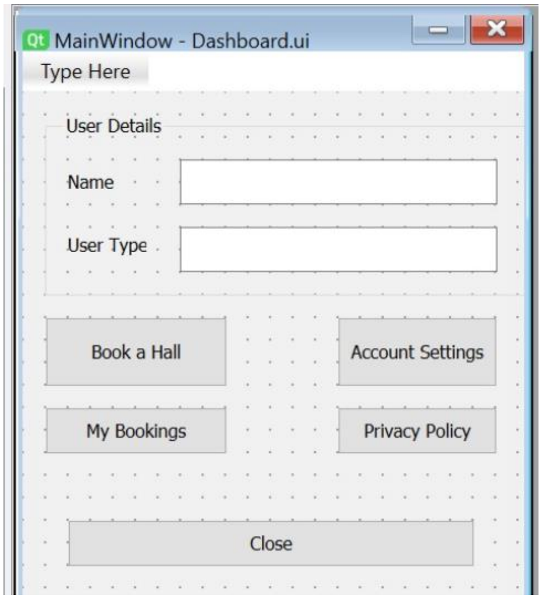


Function 4: (Booking a hall) Here the customers can easily book a hall

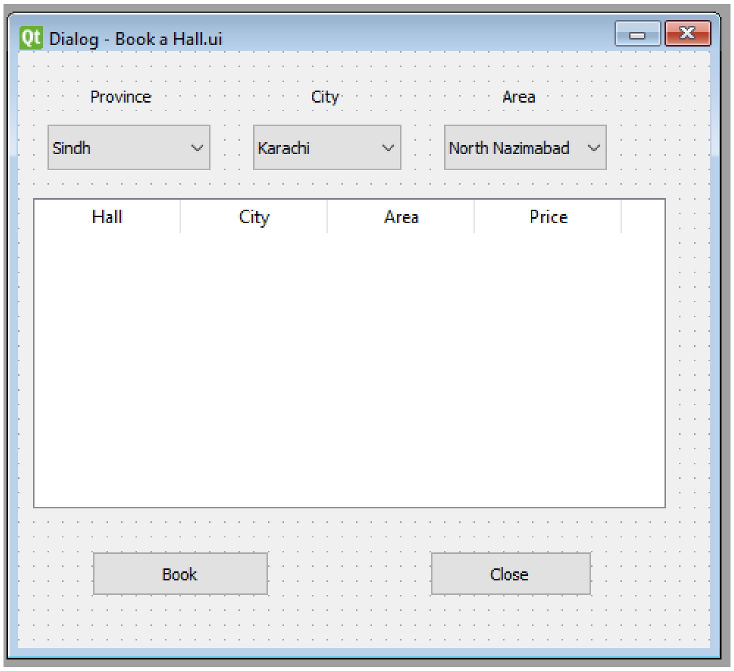
Firstly the customer will log in:



Then the dashboard will be opened up:



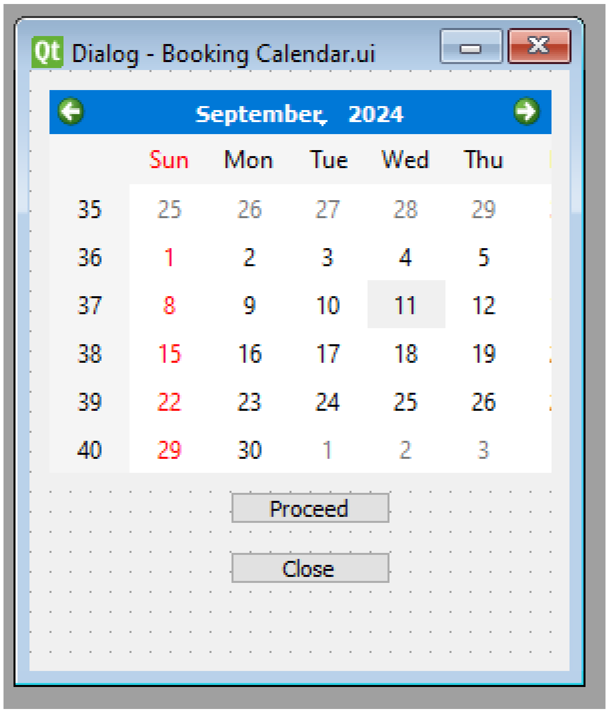
After that the customer will click “Book a Hall” button this screen wil be showed up where the customer can search according to the area city price etc:



Province: Sindh
City: Karachi
Area: North Nazimabad

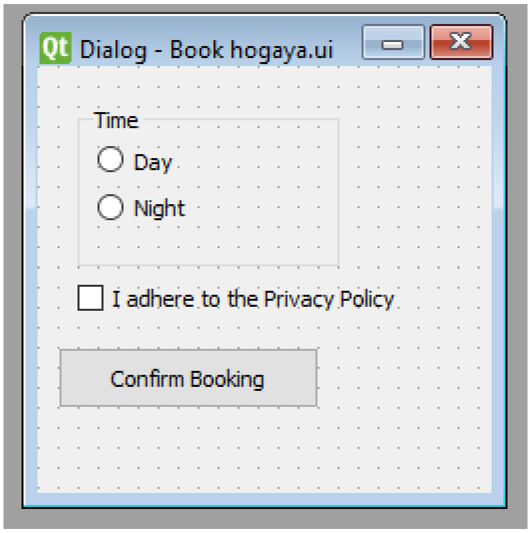
Hall	City	Area	Price

After selecting the hall the customer will click “Book” button so the calender will be opened:



	Sun	Mon	Tue	Wed	Thu
35	25	26	27	28	29
36	1	2	3	4	5
37	8	9	10	11	12
38	15	16	17	18	19
39	22	23	24	25	26
40	29	30	1	2	3

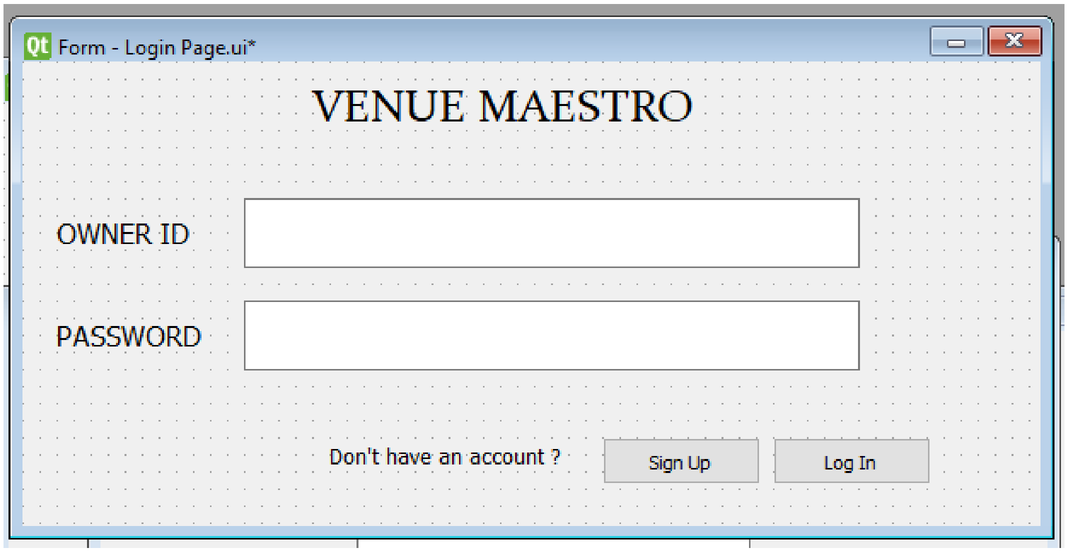
After finding the suitable day the customer will click to “Proceed”:



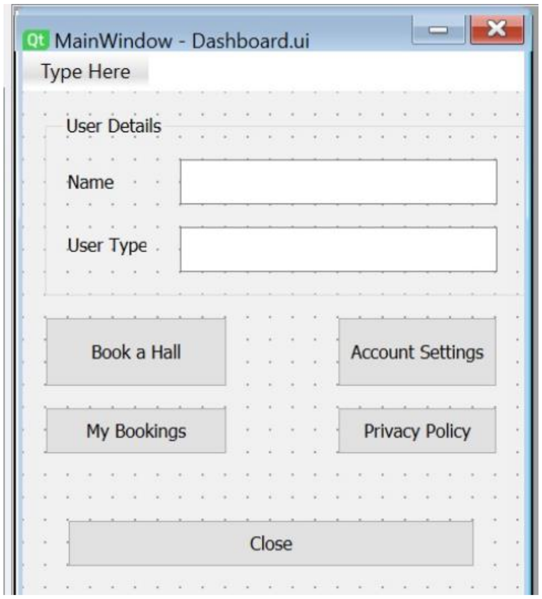
After deciding the time between day or night the customer can confirm his/her booking by accepting the privacy policy and “confirm Booking” button

Function 5: (My Bookings) The customer type only users can see and manag their bookings

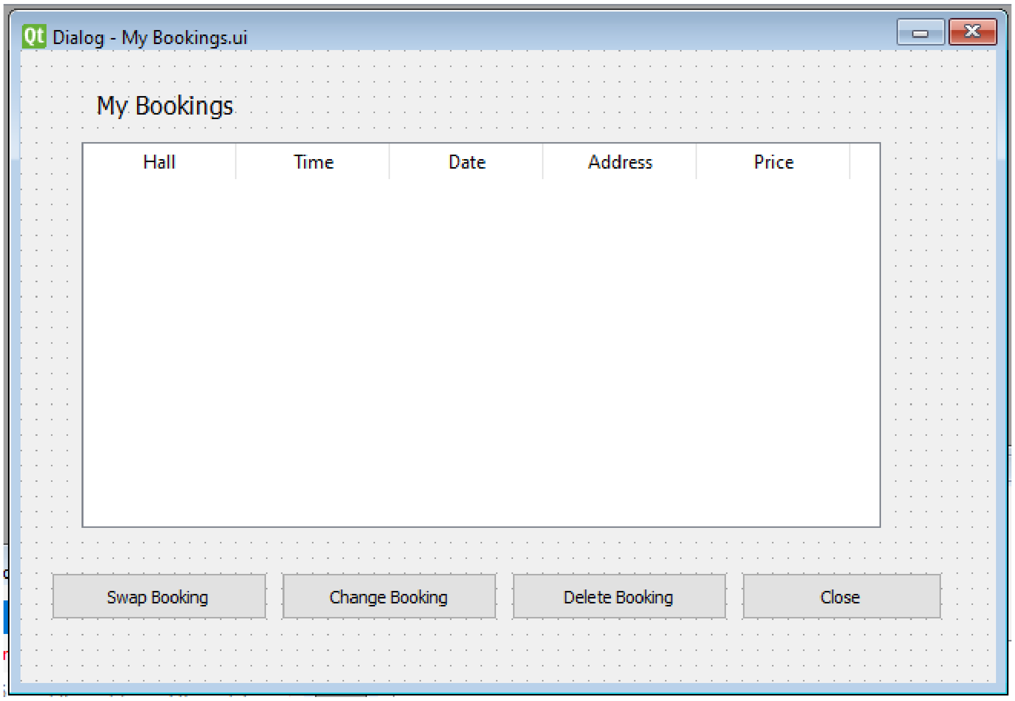
The customer will log in first:



After that the dashboard will opened:

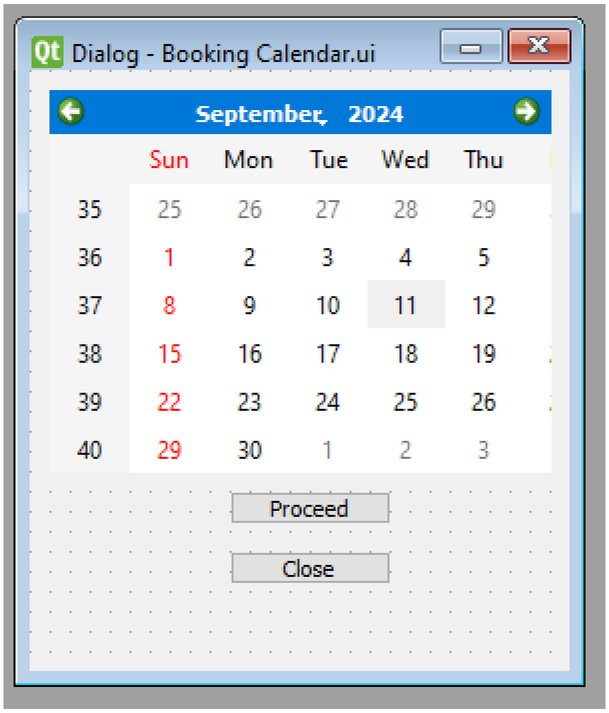


Now the Customer will click the “My Bookings” button so this screen will be showed up:



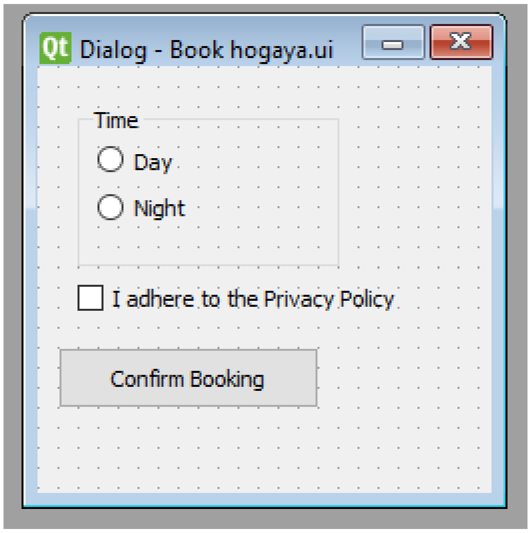
Hall	Time	Date	Address	Price

If the user click “Change Booking” so he/she will be redirected to the calender again:

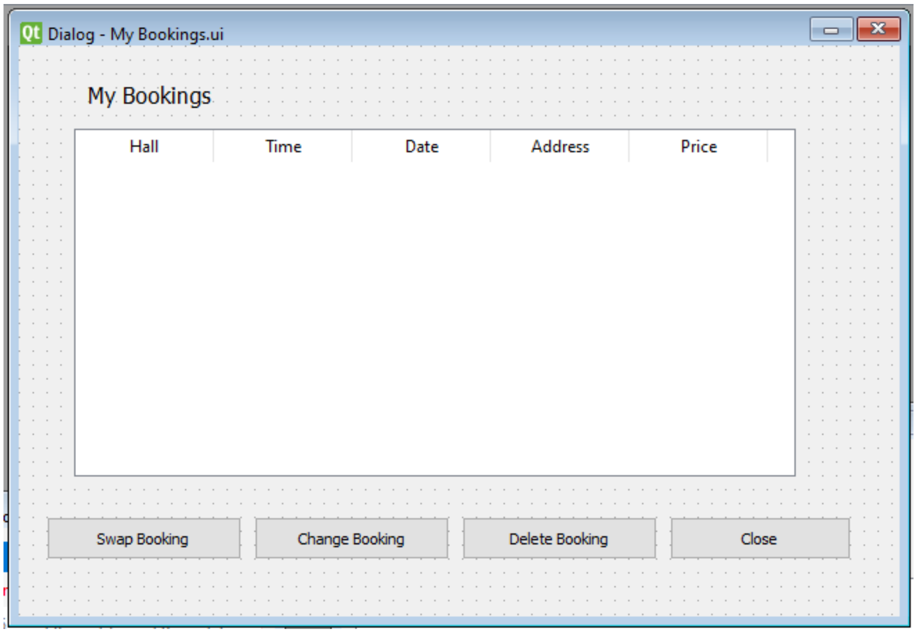


	Sun	Mon	Tue	Wed	Thu
35	25	26	27	28	29
36	1	2	3	4	5
37	8	9	10	11	12
38	15	16	17	18	19
39	22	23	24	25	26
40	29	30	1	2	3

The user can rebook the slot and can click to “proceed” and after that this screen will opened:



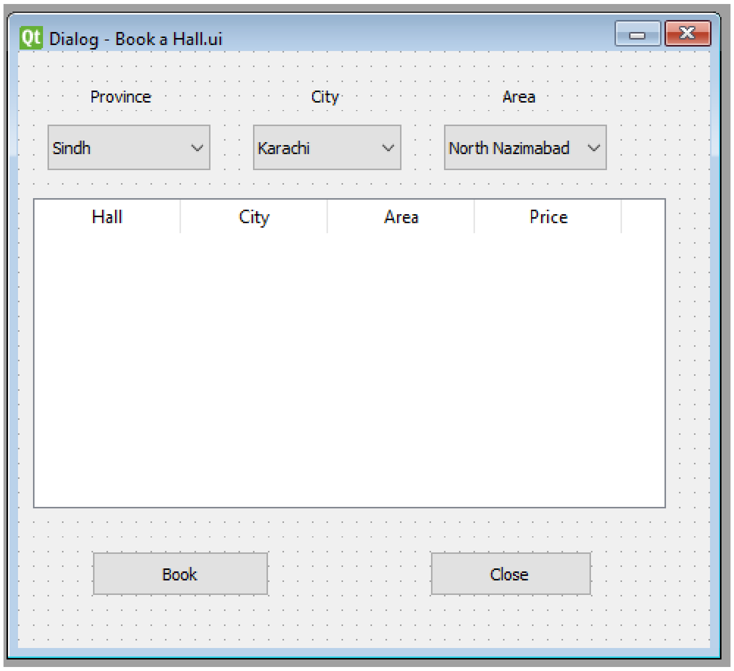
The user can choose timing, click the privavcy policy and can confirm booking by clicking “Confirm Booking”



Hall	Time	Date	Address	Price

Here if user choses the Change booking so he/she will be redirected to this screen where the customer can search according to the area city price etc:

:



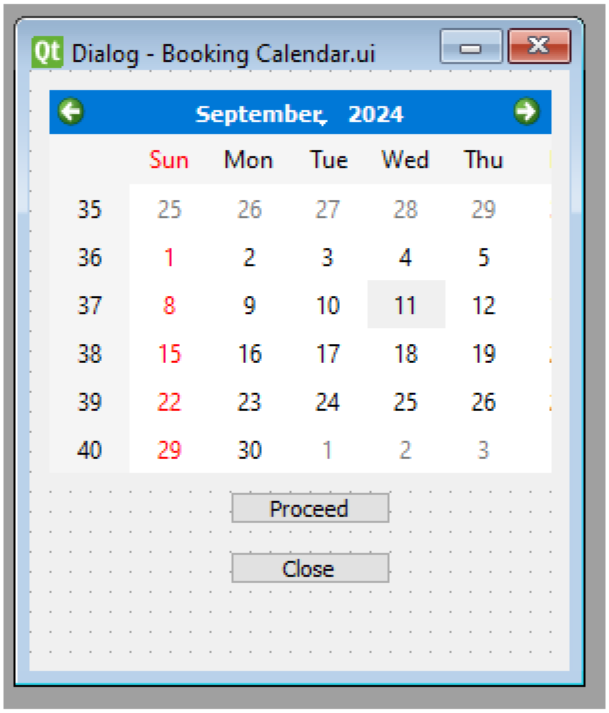
Province: Sindh

City: Karachi

Area: North Nazimabad

Hall	City	Area	Price

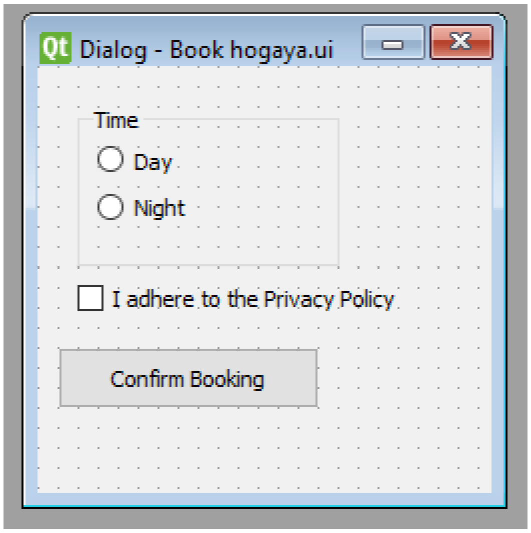
After selecting the hall the customer will click “Book” button so the calender will be opened:



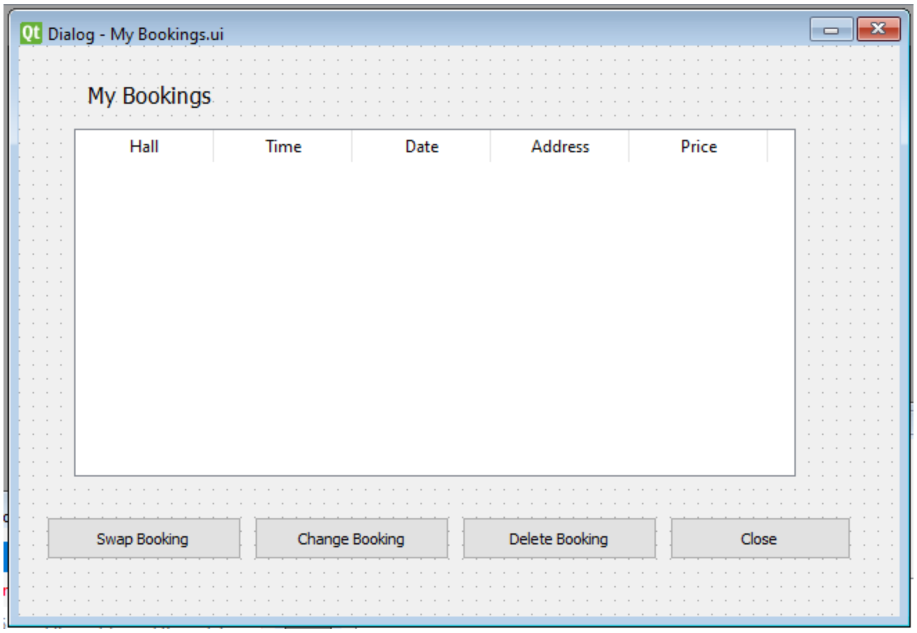
September, 2024

	Sun	Mon	Tue	Wed	Thu
35	25	26	27	28	29
36	1	2	3	4	5
37	8	9	10	11	12
38	15	16	17	18	19
39	22	23	24	25	26
40	29	30	1	2	3

After finding the suitable day the customer will click to “Proceed”:

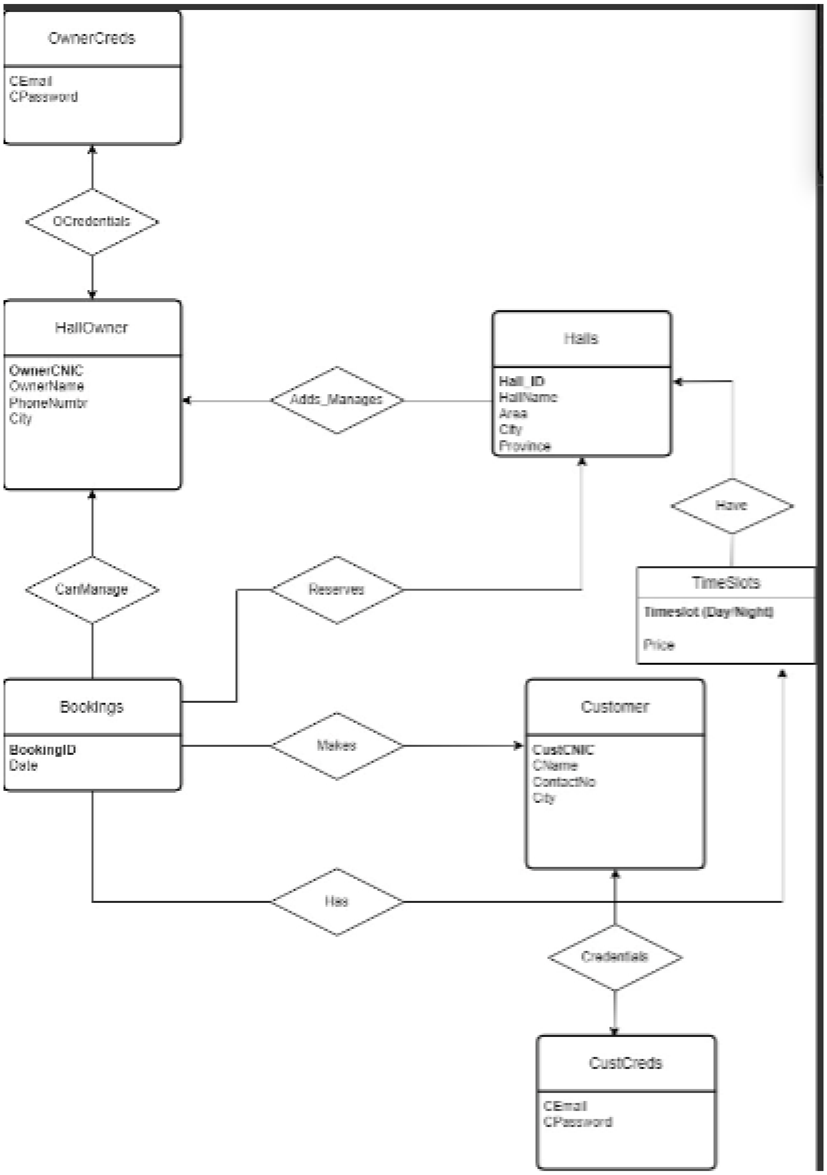


After deciding the time between day or night the customer can confirm his/her booking by accepting the privacy policy and “confirm Booking” button

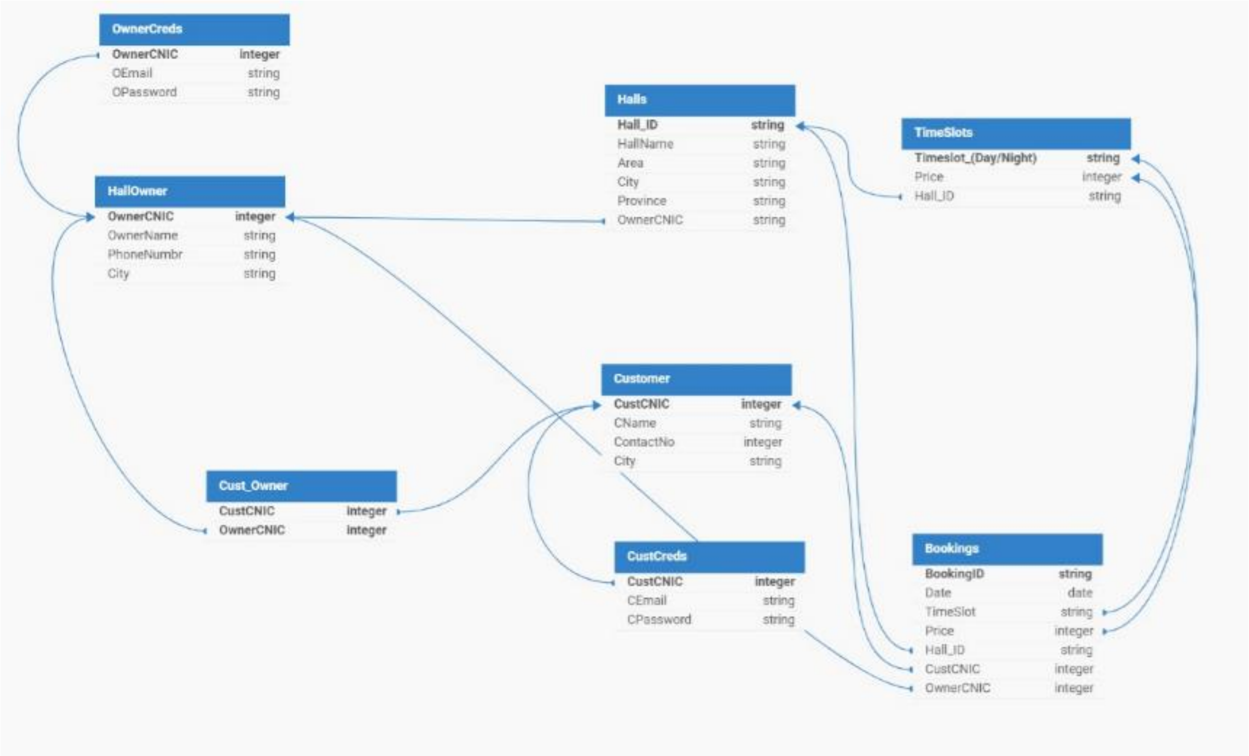


Here if the user wants to delete the booking so they can simply do it by select that booking and after selecting just click the “Delete Booking” button.

ERD:


OwnerCreds
CEmail
CPassword
OCredentials
HallOwner
OwnerCNIC
OwnerName
PhoneNumbr
City
Adds_Manages
Halls
Hall_ID
HallName
Area
City
Province
Have
TimeSlots
Timeslot (Day/Night)
Price
CanManage
Reserves
Bookings
BookingID
Date
Makes
Customer
CustCNIC
CName
ContactNo
City
Has
Credentials
CustCreds
CEmail
CPassword

SCHEMA:



OwnerCreds	
OwnerCNIC	integer
OEmail	string
OPassword	string

Halls	
Hall_ID	string
HallName	string
Area	string
City	string
Province	string
OwnerCNIC	string

TimeSlots	
Timeslot_(Day/Night)	string
Price	integer
Hall_ID	string

HallOwner	
OwnerCNIC	integer
OwnerName	string
PhoneNumbr	string
City	string

Customer	
CustCNIC	integer
CName	string
ContactNo	integer
City	string

Cust_Owner	
CustCNIC	integer
OwnerCNIC	integer

CustCreds	
CustCNIC	integer
CEmail	string
CPassword	string

Bookings	
BookingID	string
Date	date
TimeSlot	string
Price	integer
Hall_ID	string
CustCNIC	integer
OwnerCNIC	integer