

Reservation Booking System

Overview:

The project involved developing a solution using PowerApps application with SharePoint list for an IT company . The client uses the solution for event booking of their organization. This project enabled them to track all the events with reserved by members in their organization

Client details:

Name: Confidential | **Industry:** IT | **Location:** US

Technologies:

SharePoint, PowerApps (Canvas Apps),

Project Description:

Traditionally reservation slot booking has been a time-consuming and error-prone process for client. Paper-based or spreadsheet methods often lead to inefficiencies, time consuming, limited visibility and control, Data inconsistency and inaccuracy. Recognizing these challenges, client sought a solution that could streamline the event slot booking process and provide real-time insights into events, timing and booked by. This project was developed using SharePoint as data source and with canvas app.

What is Reservation Booking System?

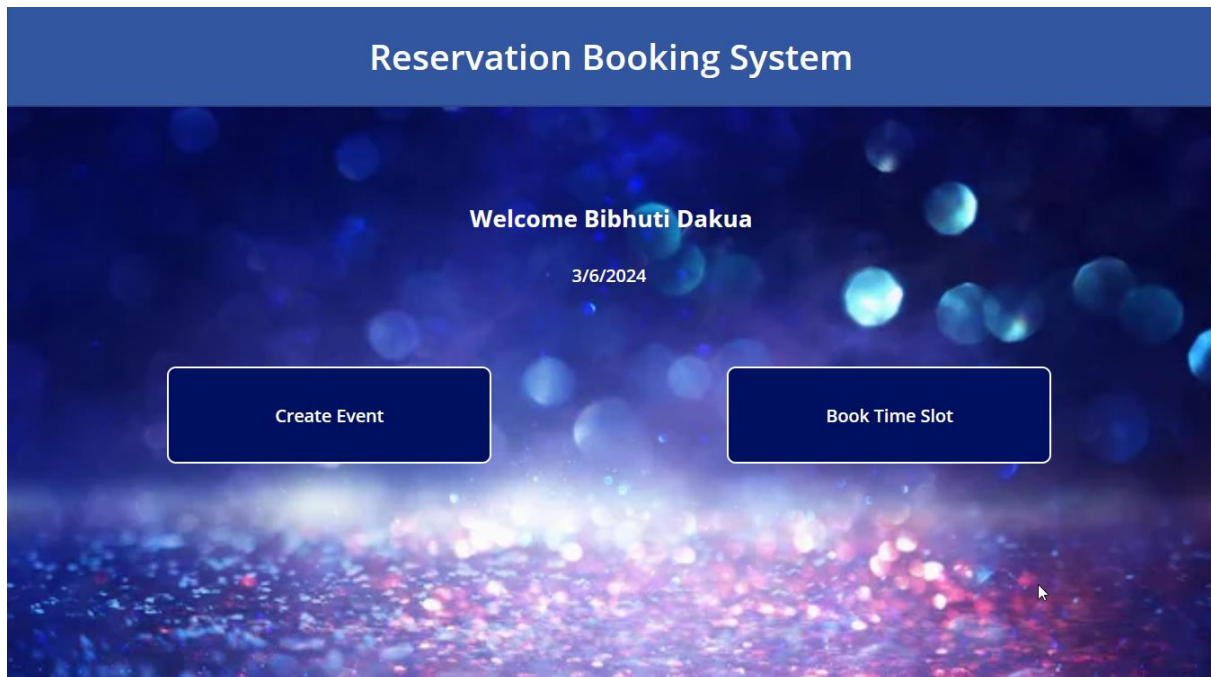
A reservation booking system is a record of the events, timing, reserved by. It facilitates booking slots for an event in an organization by acting as a tool for reservation booking system. The following are some noteworthy aspects of the project's success:

Sample and Design :

Reservation booking system Home screen

Steps

- Go to make.powerapps.
- Create blank app
- Create header by adding button and naming it with Reservation Booking System.
- For welcome message add a label and in text property give "Welcome "&User().FullName.
- For current date add label and in text property give Today().
- Add a button and provide name as Create Event and in OnSelect property give Navigate(screen2).
- Add another button and name it as Book time slot and in OnSelect property give Navigate(Screen3).



Use Case- When employees log in to PowerApps, they are directed to the home page. From this home page, they can navigate to different sections of the app. By clicking on the "Create Event" button, users can access the create event page where they can input event details like the event name, date, and time. If employees wish to book a time slot for an event, they can click on the "Book Time Slot" button, which will then take them to the time slot booking screen where they can select and reserve a specific time slot for an event.

This navigation flow within PowerApps allows for a user-friendly experience, guiding employees to easily create events and book time slots as needed. The seamless transition between different screens enhances usability and efficiency within the application.

Reservation Booking system create event screen:

Use case- The event screen provides users with fields to input event details such as the event name, date, starting time, ending time, and duration. These details are then submitted to a SharePoint list using the Patch function, which allows for the seamless transfer of data from the event screen to the SharePoint list.

Additionally, the event screen features a gallery that enables users to view events and their associated data. Users can utilize a filter option based on the event name to refine their search and view specific events. This functionality enhances user experience by allowing them to easily locate and access relevant event information within the gallery display.

Steps

- Create new screen
- Add button and name it with create event.
- Add an Input Text field for Event name.
- Add a date field for event date.

- Add a dropdown for Start time and in Items property provide formula as
*AddColumns(Sequence(48,0) As MyNum, "myTime", Text(DateAdd(DateTimeValue("00:00"), 30*MyNum.Value,TimeUnit.Minutes), DateTimeFormat.ShortTime), myDate",DateAdd(DateTimeValue(DatePicker1.SelectedDate & " 00:00"), 30*MyNum.Value,TimeUnit.Minutes)).*

- Also add dropdown for end time and in items property provide formula as
*AddColumns(Sequence(48,0) As MyNum, "myTime", Text(DateAdd(DateTimeValue("00:00"),30*MyNum.Value,TimeUnit.Minutes),DateTimeFormat.ShortTime), "myDate",DateAdd(DateTimeValue(DatePicker1.SelectedDate & "00:00"), 30*MyNum.Value,TimeUnit.Minutes)).*

- Add another dropdown for session hours and in items property provide formula as
Table({Text: "1 Hour", Length:60},{Text: "30 min", Length:30}).

- Add a submit button and in OnSelect of that button provide formula as
*ForAll(Sequence(DateDiff(Start.Selected.myDate,End.Selected.myDate,TimeUnit.Hours)*If(Session.Selected.Length=30,2,1),0) As DATA,Patch('Time Slot',Defaults('Time Slot'),{'Row Number':DATA.Value,EventDate:DatePicker1.SelectedDate,'Time Slot':DateAdd(Start.Selected.myDate,Session.Selected.Length*DATA.Value,TimeUnit.Minutes),Reserved:false},Title:TextInput1.Text,ReservedBy:"",SlotLength:Session.Selected.Length));*

- Add a drop down to the screen and in items property give *Distinct('Time Slot', Title)*

- Add a gallery to the screen and add sharepoint list as data source.
- Add labels to gallery to show event name and row numbers.
- Add check icon to the gallery and in visible property of icon give *If(ThisItem.Reserved,true,false).* // it will visible if reserved column value of SharePoint list is true.
- In items property of gallery give *Filter('Time Slot',Title=Dropdown1.Selected.Value).* //It will show items in the gallery based on dropdown selection.

The screenshot shows a 'Create Event' form with a blue header. The header contains a back arrow icon, the title 'Create Event', and a user greeting 'Welcome Bibhuti Dakua' with the date '3/6/2024'. The form fields are:

- Event Name: Video EV1
- Event Date: 3/6/2024
- Start Time: 12:00 AM
- End Time: 4:00 AM
- Session length: 1 Hour

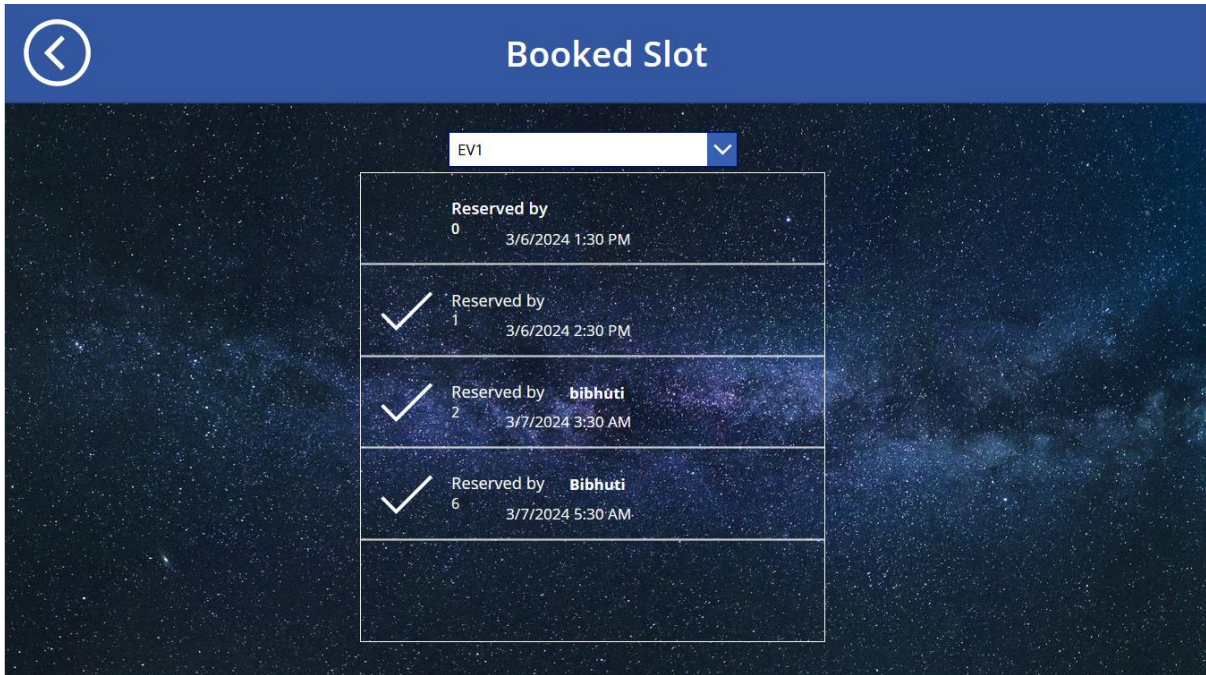
 A 'Create' button is located below the form fields. To the right of the form is a dropdown menu with 'EV1' selected. Below the dropdown is a gallery of booking slots:

EV1 0	
EV1 1	✓
EV1 2	✓
EV1 6	✓

In the **Booking Slot screen**, there is a gallery that displays information such as the row number, the name of the person who reserved the slot, and the date and time of the reservation. This gallery provides a visual representation of the booked slots, allowing users to quickly see which slots are reserved and by whom.

Steps

- In Booking slot screen add a button for header and name it as Booking slot.
- Add a gallery and a drop down to the screen.
- In dropdown items property give *Distinct('Time Slot',Title)*.
- In gallery add labels for Reserved by, row number and date time,
- Also add a check icon and in icon OnSelect property give *Patch('Time Slot', ThisItem, {Reserved, true, ReservedBy:User(),FullName})* // if a user clicks wants to reserve a seat then he can book seat by clicking on this icon.



Additionally, users have the ability to click on a specific event within the gallery. By selecting a row in the gallery, users can access more detailed information about that particular reservation or take further actions related to that specific event. This interactive feature enhances user engagement and facilitates easy navigation within the Booking Slot screen, enabling users to manage and interact with reservations effectively.

Sharepoint list fields

Column (click to edit)	Type
Title	Single line of text
Row Number	Number
EventDate	Date and Time
Time Slot	Date and Time
Reserved	Yes/No
ReservedBy	Single line of text
SlotLength	Number
Modified	Date and Time
Created	Date and Time
Created By	Person or Group
Modified By	Person or Group

This project is successfully done by using the above-mentioned technology and it is maintaining the requirement of the client.