**Data Model and Database Design** –

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| **OBJECT** | **Trips** |
| Name | Auto number |
| From City | Text |
| To City | Text |
| Status | Picklist (Scheduled, Available for booking, Completed, Cancelled) |
| Trip Date and Time | Datetime |
| Seats Booked | multi-select picklist |

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| --- | --- |
| **OBJECT** | **Contact (end users for our use case)** |
| Name | Auto Number |
| Address | Text |
| Contact Number | Number |
| Payment Preference Type | Picklist (Card, UPI, etc) |
| Payment Preference Name | Text |
| Payment Preference Number | Number |

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| --- | --- |
| **OBJECT** | Trip Bookings |
| Name | Auto number |
| Master detail (Trip) | Master |
| Master detail (Contact) | Master |
| Seat Booking Number(s) | Text Area |
| Booked on | Datetime |
| Lookup (Booking Transaction) | Lookup |

|  |  |
| --- | --- |
| **Object** | **Booking Transaction** |
| Name | Auto number |
| Transaction Date | Datetime |
| Transaction Amount | Currency |
| Transaction Status | Picklist (Success, Failure) |

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| --- | --- |
| **OBJECT** | **Booking Transaction Logs** |
| Log- | Auto number |
| Error Message | Text |
| Error Details | Long Text Area |
| Lookup (Booking Transaction) | Lookup |

**Integration –**

We will need to integrate with third party payment gateways, that would allow for payments after trip and seat selection from mobile app. This could be achieved by making callout. We can use named credentials to store details of which end point to hit and what authentication mechanism to use. Then from Apex, we make a HTTP callout and process payment.

The integration’s callout and related logs will be stored in transaction and its related Transaction Logs object.

**Platform Tools and Architecture**

We will build LWC components to create custom UI elements required to build this application on mobile.

Screen 1 – Home Screen

Branding

Show Book Ticket Button

Show Options - to view Past Bookings and transactions

Screen 2 – Booking Screen (when Book Ticket is clicked)

Allow for booking of trips using a dropdown for selection. All trips in status ‘available for booking’ are displayed.

Show pictorial view of seats for trip based on selection. Booked seats are shown in RED.

After selection of seat, display Amount in footer section with ‘Continue to Pay’ button

Screen 3 – Payment Screen (When Continue to Pay is clicked)

Display various options to make payment. Have Preferred payment option selected.

If other option is selected, ask for details for new selected option. Also, ask if this should be preferred option going forward?

After selection and clicking ‘Pay’ button, Make a callout to payment provider with mentioned details and amount.

Based on response, show success, or try again message to user and user is redirected to home/view bookings screen.

Additional Screens -

Admin user should be able to create new trips, cancel an existing one or see list of customers, from standard salesforce UI. If required, it can also be built on mobile application.

These LWC elements will then be added to ‘Lightning Community’ which can be exposed to end users via Salesforce Mobile Application.

We will have external users created with customer community user license, using which they can access bus booking application and make transactions.