

BRMS

(Bus Reservation Management System)

Project work submitted to complete the PYTHON 'Tech Talk' training in Bosco Soft Technologies Pvt Ltd

By

Yesu Doss X

TABLE OF CONTENTS

S.No	Content	Page No
1	Introduction 1.1 Existing System 1.2 Solution	4
2	Survey of technologies 2.1 Sever-side technologies	4
3	Requirements and Analysis 3.1 Problem Definition 3.2 Requirement Specification 3.3 Planning and Scheduling	5
4	System Design 4.1 Basic Module 4.2 Entity-Relationship Diagram 4.3 Use Case Diagram 4.4 Data Flow Diagram	6
5	Screen shots	19
6	Modules	12
7	Conclusion 5.1 Conclusion	12

PROJECT SYNOPSIS

TITLE OF THE PROJECT

BRMS (Bus Reservation Management System)

OBJECTIVES OF THE PROJECT

Travel industry is evolving day to day. As the industry evolves the need to digitalize all the transactions become need of the hour. This project which is implemented in Python helps to manage bus booking. This Bus Booking System is easy to use.

PURPOSE OF THE PROJECT

To Design and implement a Odoo software application that monitors the Bus details and Seat availability.

SCOPE OF THE FUTURE APPLICATION

Bus Booking System is a web-based application which is connected to a complete database. The database includes information about buses, no. of seats available, occupancy, availability, days and time of operation, no. of buses from point 'A' to point 'B', report generation etc.

The database is updated time to time and a user can reserve his ticket from any part of the world and any time.

ENVIRONMENT

TOOL USED:

Category	Tool
Front End	XML, JS, CSS, HTML
Back End	Python, ODOO
Editor	PyCharm
Database	PostgreSQL
Documentation	Microsoft Office Professional Plus 2019
Platform	Windows 10
Language	Python

INTRODUCTION

1.1 Existing System

The existing Bus Booking System is not completely computerized. The customer has to visit any booking branch if he wants to book a ticket. Bus scheduling, ticket booking, bill generation and many other operations are done manually. This may lead to incorrect entries and there is a lot of room for errors as the data is not completely synced. This is the major bottle neck

1.2 Solution

BRMS will provide following solutions,

- ☐ Reserve Buses online.
- ☐ Payments online
- ☐ Cancel reservation
- ☐ View reservation status
- ☐ View reports
- ☐ Update reservation details

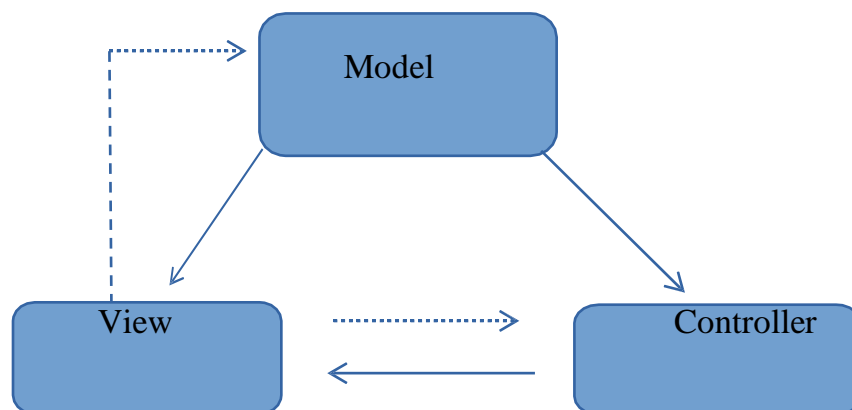
Survey of Technologies

This is a web-based client-server application solution so the following technologies are considered. DEVELOPERS today increasingly recognize the need for distributed, transactional, and portable application that leverage the speed, security and reliability of server-side technology. In the world of information technology, enterprise application must be designed, built, and produced for less money, with greater speed and with fewer resources.

2.1 Server-Side Technologies

The adopted technology for the development of BRMS is: PYTHON.

Model-View-Controller Architecture Pattern



Model

Contains business logs.

Controller

Interacts with Model to create data for the View.

View

Renders contents to the user and relays user commands to the Controller.

Requirements and Analysis

3.1 Problem Definition

This system reduces the manual work of the Passenger to manage the various details about the Bus Reservation.

3.2 Requirements Specification

- R1. Maintain the Bus details
- R2. Maintain the Reservation details
- R3. Maintain the Cancellation details
- R4. Maintain the Payment details

3.3 Planning and Scheduling

Module: Bus Reservation

Features:

- ☐ Customer Details
- ☐ Payments
- ☐ Report

4.1 Basic Modules Activities

Feature 1:

Name: Reservation

Input: To pre reserve bus with a payment and Maintain eServer (Passenger) details

Output: It shows a cost of reservation.

Description: This Module is used to register bus as to store and maintain passenger details

Feature 2:

Name: Bus

Input: Basic Details of bus details and this detail will be edited by Owner and viewed by passenger

Output: Basic Details will be stored in databases

Description: This Module is used to register your bus details.

Feature 3:

Name: Route

Input: Basic Details of bus routes and this detail will be edited by Owner and viewed by passenger

Output: Basic Details will be stored in databases

Description: This Module is used to register your route details.

Feature 4:

Name: Payments

Input: Payment type and customer payments details.

Output: Generate Reports and Confirm reservation.

Description: This Module is used to pay for Bus Reservation.

Feature 5:

Name: Locations

Input: All the locations of where the bus service available will be stored in these locations.

Output: To store and maintain Locations Detail

Description: This Module is used to maintain locations.

Feature 6:

Name: Location Points

Input: All the locations Points (Stopping or Landmarks) of where the bus service available will be stored in these locations.

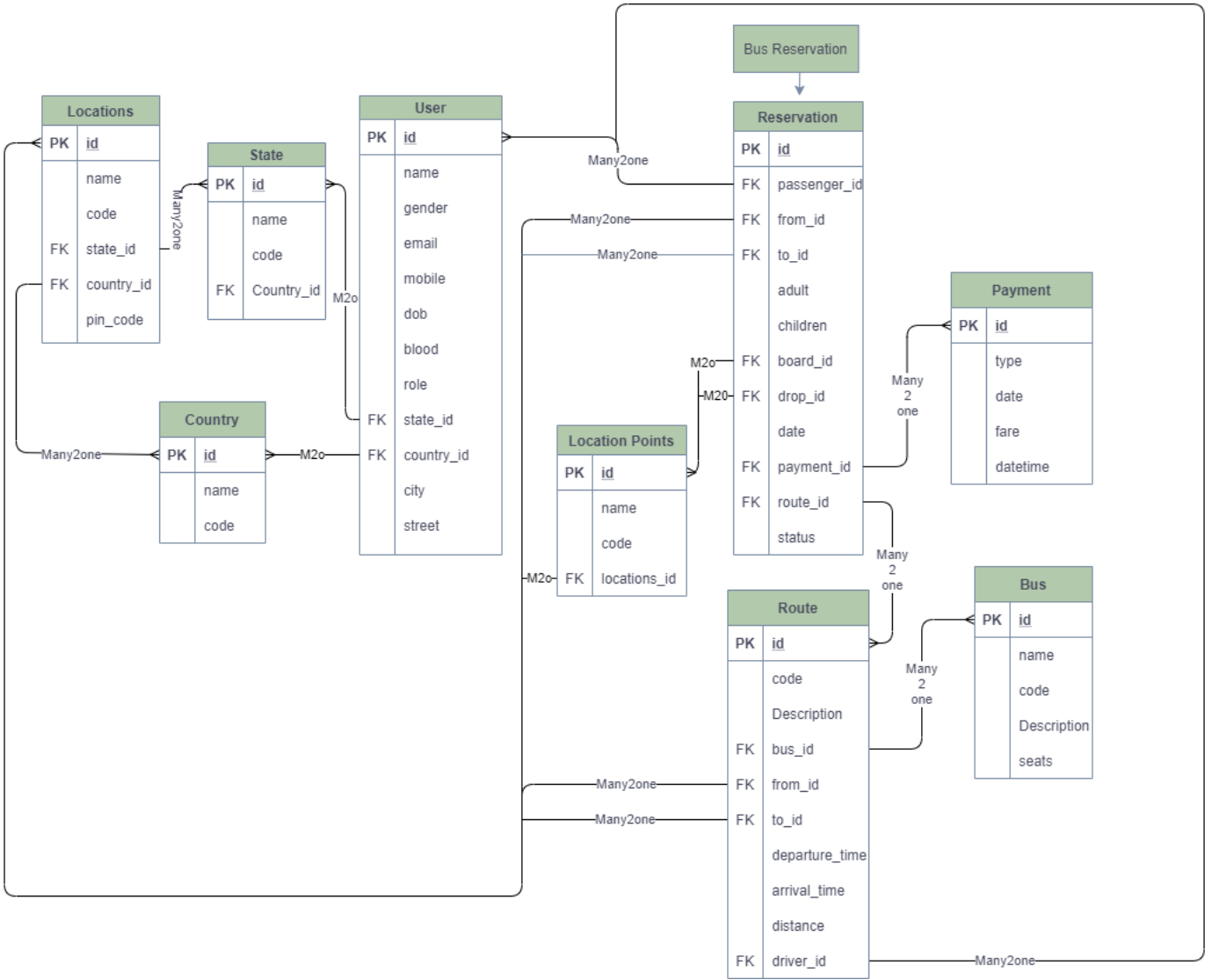
Output: To store and maintain Location Points Detail

Description: This Module is used to maintain location points.

4.2 Entity Relationship Diagram

Bus Reservation

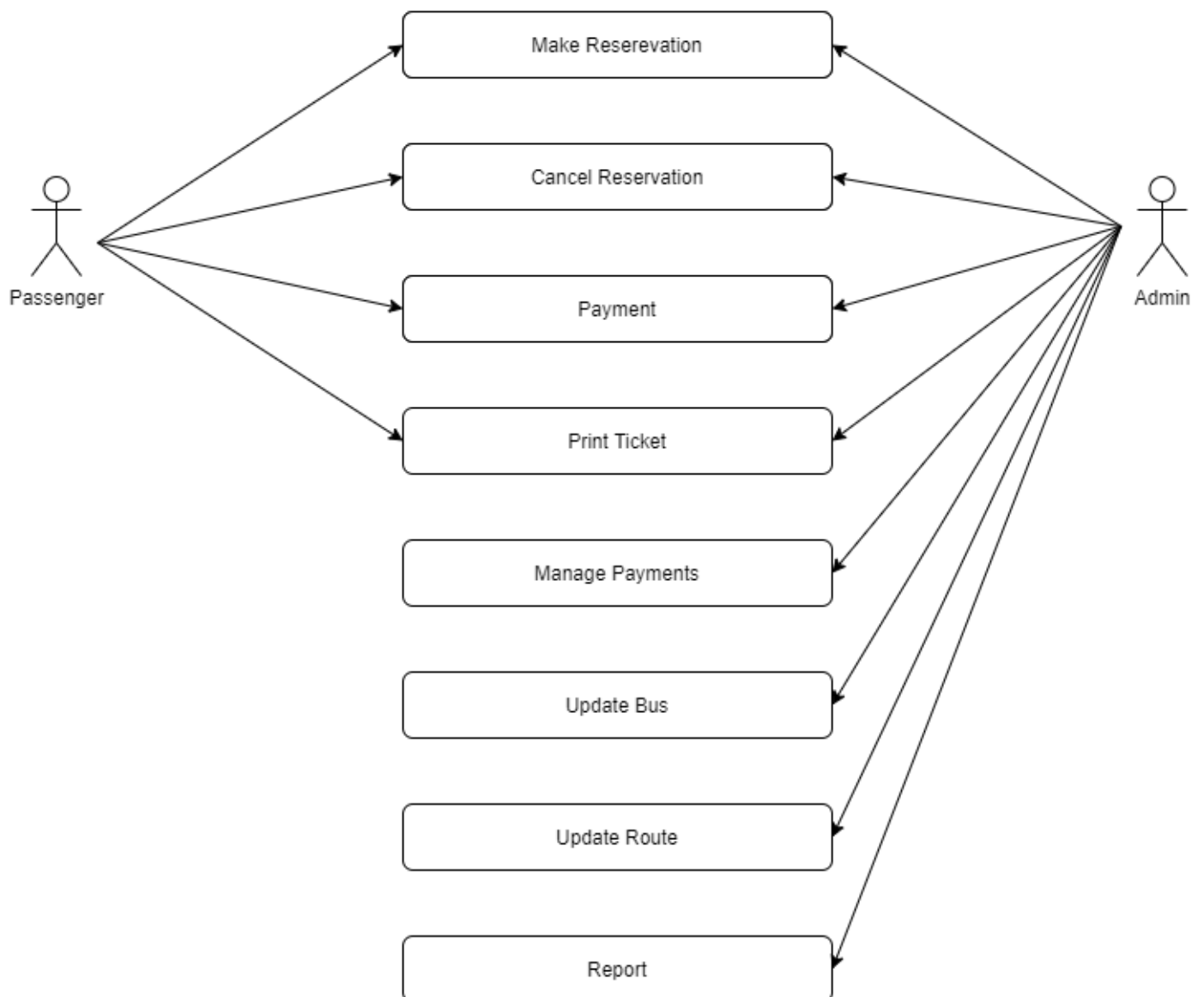
ER Diagram



4.2 Use Case Diagram

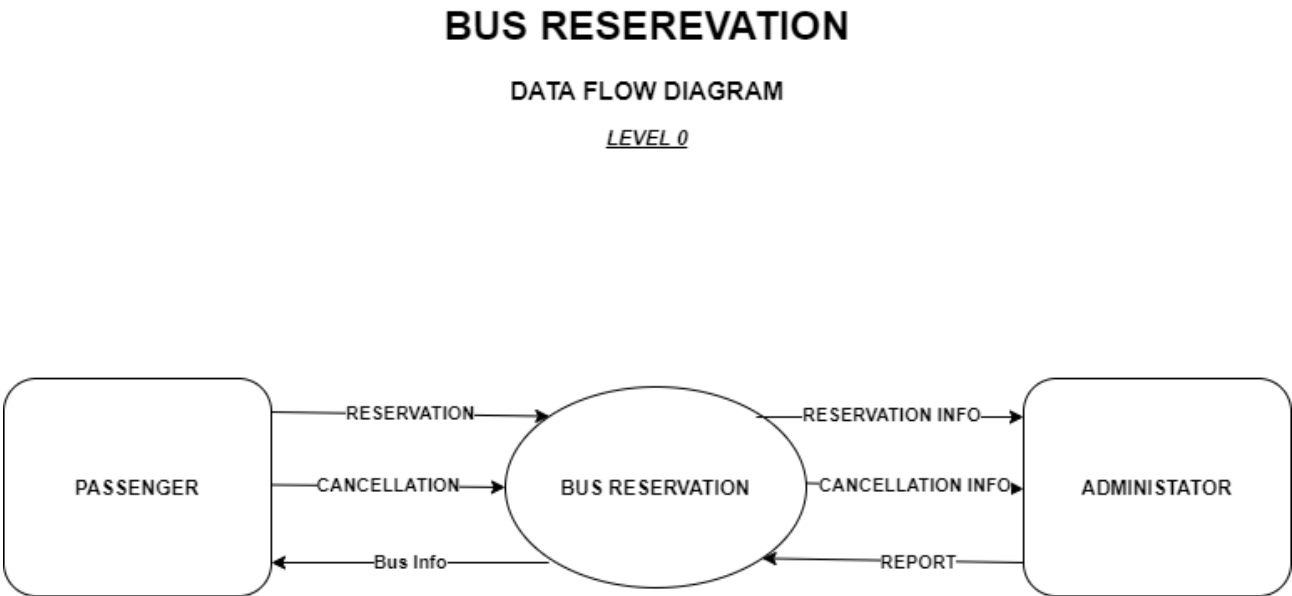
BUS RESERVATION

USE CASE DIAGRAM



4.3 Data Flow Diagram

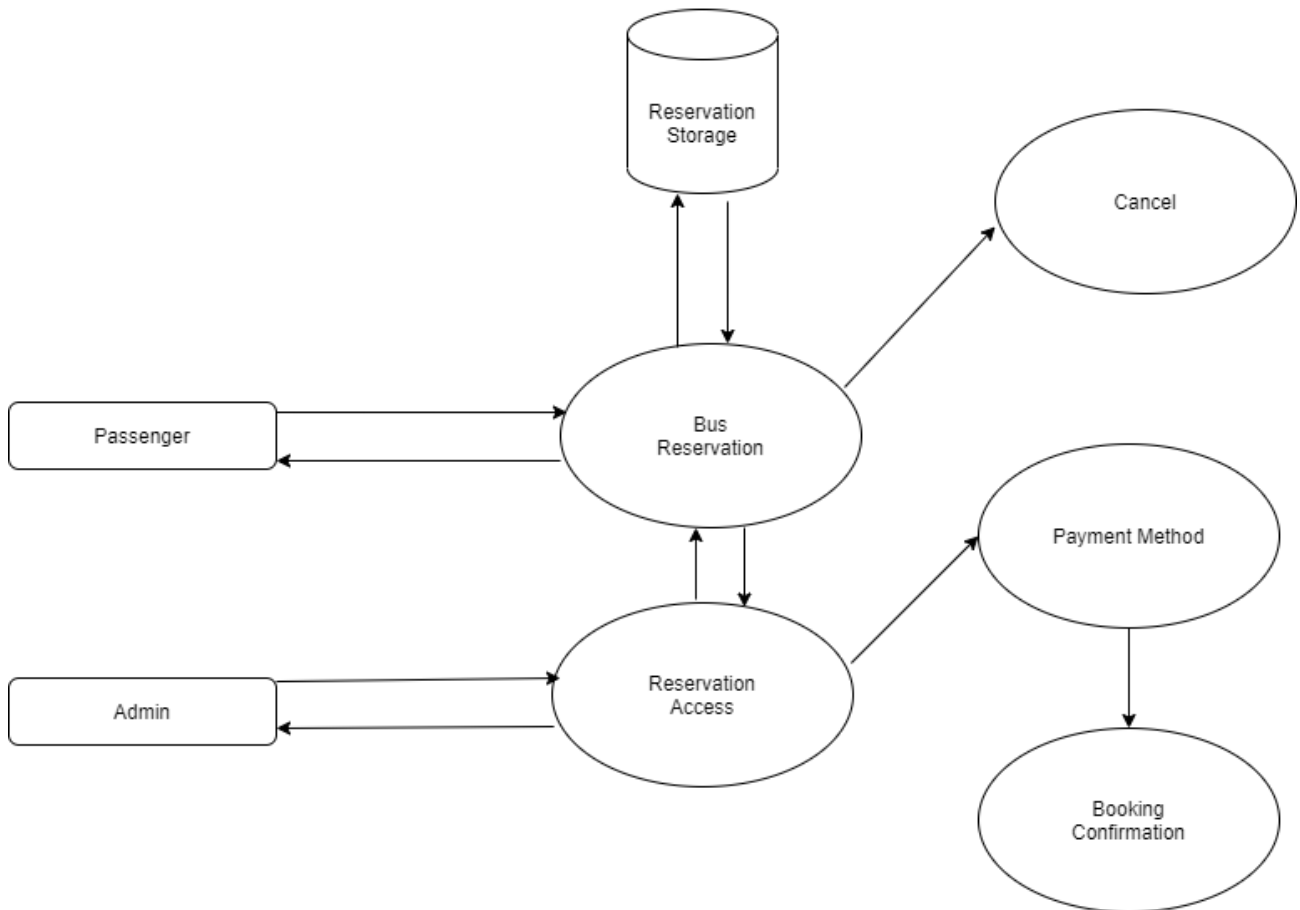
Level 0



BUS RESEREVATION

DATA FLOW DIAGRAM

LEVEL 1



6.1 Screenshots:

Reservation – Tree View

Bus Reservation

Dashboard

Payment

Wizard

Report

Configurations

2

3

My Company (San Francisco)

Mitchel Admin (busreservation)

Reservations Details

Search...

Filters

Group By

Favorites

1-2 / 2

Reservation Reference

Name

Contact

From

To

No of Tickets

Total

Status

R000007

Doss

9786047451

Chennai

Kochi

1

2,095.00

Draft

R000014

Jerry

98745612130

Madurai

Chennai

1

1,195.00

Draft

Reservation – Form View

Bus Reservation															
Dashboard				Payment		Wizard		Report							
Configurations				My Company (San Francisco)		Mitchel Admin (busreservation)									
Reservations Details / Doss															
Edit Create															
Print Action															
Set Confirmed Set Cancel Set Done															
Draft															
R000007															
From Chennai To Kochi Date 10/07/2020															
Available Buses No of Tickets Total															
Chennai - Kochi (₹ 2095.0) 1															
Boarding Point Drop Point ₹ 2,095.00															
T-Nagar Marine Drive															
Passenger Details															
Name Doss															
Contact 9786047451															
Email y@gmail.com															
Gender Male															

Dashboard

✖

🌐 2

💬 3

📦

My Company (San Francisco) ▾

👤

Mitchel Admin (busreservation) ▾

Bus Reservation System

Bus Reserv

Routes and Bus Details

From	To	Bus	Fare
Coimbatore	Tuticorin	Mercedes Benz 1	1000
Chennai	Madurai	Mercedes Benz 1	989
Madurai	Chennai	Mercedes Benz 1	1195
Chennai	Kochi	Volvo V1	2095

Route Details - Wizard

Bus Reservation System

Dashboard | Reservations | Wizard | Reports | Configurations

🌐 2

💬 3

📦

My Company (San Francisco) ▾

👤

Mitchel Admin (busreservation) ▾

Reservations Details

Create | Import | 📄

☐ Reservation Reference

☐ R000007

☐ R000014

Routes Details

✖

Route

Chennai - Madurai (₹ 989.0) 📄

code

C2M

Bus

Mercedes Benz 1 📄

From

Chennai 📄

To

Madurai 📄

Distance

445KM

Fare

₹877

Update Route Details

Create Route

Cancel

2 / 2

< >

🔍

☰

🗖

Total	Status
2,095.00	Draft
1,195.00	Draft

Bus Details - Wizard

Bus Reservation

Reservations Details

Create

Import

☐ Reservation Reference

☐ R000007

☐ R000014

Bus Details

Name

Mercedes Benz 2

Number

TN 34 AV 2929

No of Seats

45

Mercedes Benz with 45 seats

Update Bus Details

Cancel

2 / 2

<

>

Total	Status
2,095.00	Draft
1,195.00	Draft

Ticket - Report

Discuss

My Company (San Francisco)

Mitchel Admin (busreservation)

Reservations Details / Doss / Reservation Invoice

Print

Blue Bus

R000007

Ticket #

Due: February 1, 2015

Name of the Passenger

Contact

Doss

9786047451

From

To

Boarding Point

Drop Point

Date of Travelling

Bus Name

Bus Number

Chennai

Kochi

T-Nagar

Marine Drive

2020-10-07

Volvo V1

VV1

Payment Method

Online Payment(Only) #

Online Transaction only allowed

Bus Details

Bus Reservation

DashboardPaymentWizardReportConfigurations

2

3

My Company (San Francisco)

Mitchel Admin (busreservation)

Bus Details / Mercedes Benz 1

EditCreate

Action

1 / 4

Bus Details

Name

Mercedes Benz 1

Number

TN 50 AA 4444

No of Seats

40

Description

Benz 40

Route Details

Bus Reservation

DashboardPaymentWizardReportConfigurations

2

3

My Company (San Francisco)

Mitchel Admin (busreservation)

Route Details / Coimbatore - Tuticorin (₹ 1000.0)

EditCreate

Action

1 / 4

Route Details

code

101

Bus

Mercedes Benz 1

Total no of seats

40

Count / Booked Seats

0

From

Coimbatore

To

Tuticorin

Departure Time

10/02/2020 22:04:20

Arrival Time

10/03/2020 22:04:20

Distance

600KM

Fare

₹ 1,000.00

Description

Chennai to Madurai

Points Details

Bus Reservation

DashboardPaymentWizardReportConfigurations

2

3

My Company (San Francisco)

Mitchel Admin (busreservation)

Points Details / Marine Drive

EditCreate

Action

8 / 24

Location Points Details

Location	Kochi
Name	Marine Drive
Code	MD

Location Details:

Bus Reservation

DashboardPaymentWizardReportConfigurations

2

3

My Company (San Francisco)

Mitchel Admin (busreservation)

Location Details / Kochi

EditCreate

Action

5 / 13

Location Details

Name	Kochi
code	kochi
Country	India
State	Tamil Nadu (IN)

Website - Available Buses:

WEBSITE ▾PagesCustomizePromote

★📱My Website ▾+ New✎ Edit

YOUR WEBSITE

HomeEventsContact usMitchel Admin ▾

Buses Available

Reserve

Code	Name	From	To	Departure Time	Arrival Time	Distance	Fare
101	Mercedes Benz 1	Coimbatore	Tuticorin	2020-10-02 16:34:20	2020-10-03 16:34:20	600KM	1000.0
R2	Mercedes Benz 1	Chennai	Madurai	2020-10-01 16:36:03	2020-10-02 16:36:03	500 KM	989.0
R1	Mercedes Benz 1	Madurai	Chennai	2020-10-01 16:37:57	2020-10-02 16:37:57	500 KM	1195.0
C 2 K	Volvo V1	Chennai	Kochi	2020-12-10 16:19:57	2020-11-07 16:19:57	600 KM	2095.0

Our Products & Services

Connect with us

My Company (San Francisco) - About us

Website – Reservation Form:

WEBSITE ▾PagesCustomizePromote

★📱My Website ▾+ New✎ Edit

YOUR WEBSITE

HomeEventsContact usMitchel Admin ▾

Reservation Details

Passenger Details

Your Name *

Yesu

contact *

9786047451

Email *

yesu@gmail.com

Country *

India ▾

State *

Tamil Nadu ▾

Door no *

New

Street *

Main Road

City *

Moongilthurai Pattu

Travelling Details

Website – Reservations:

WEBSITE ▾PagesCustomizePromote

🔍📱My Website ▾+ New✎ Edit

🌐YOUR WEBSITE

HomeEventsContact usMitchel Admin ▾

Reservations

Reserve

Name	Contact	From	To	No of Tickets	Total
Doss	9786047451	Chennai	Kochi	1	2095.0
Jerry	98745612130	Madurai	Chennai	1	1195.0

Our Products & Services

[Home](#)

Connect with us

[Contact us](#)
☎ +1 (650) 691-3277
✉ info@yourcompany.example.com

[f](#)[t](#)[in](#)[v](#)[m](#)[i](#)

My Company (San Francisco) - [About us](#)

We are a team of passionate people whose goal is to improve everyone's life through disruptive products. We build great products to solve your business problems.

Our products are designed for small to medium size companies willing to optimize their performance.

🌟 Copyright © My Company (San Francisco)

English (US) ▾

➕ Add a language...


Report- Wizard

Bus Reservation

DashboardPaymentWizardReportConfigurations

🔍🔄2💬3📦

My Company (San Francisco) ▾

 Mitchel Admin (busreservation) ▾

Reservations Details / Field Report

Print

Passengers

S.No	Name	Mobile	From	To
1	Doss	9786047451	Chennai	Kochi

7.1 Modules:

Here in this Bus Reservation Project “**Website**” module has been used for reservation.

8.1 Conclusion:

The Main focus of this application is to make admin to register their bus information in this application so that customer can easily pre-reserve bus online, and maintain booking details.