

BUS BOOKING MANAGEMENT SYSTEM

ABSTRACT:

Travel industry is evolving day to day. As the industry evolves the need to digitalize all the transactions becomes need of the hour. This project which is implemented on SQL that helps to manage bus bookings. This Bus Booking System is an easily deployable, integrated end-to-end system starting from searching bus routes to book them.

OBJECTIVE :

1. This will make it easy for the company to know the accurate monthly income by knowing about bookings made by customer.
2. We can get accurate information about the number of passengers travelling and their details.
3. This will make it easy to track the record of buses and people travelling in the bus.

STRUCTURE OF TABLES

BOOKING : This table contains all the details of bookings made by customer and the number of seat and types of seat booked by them.

```
MariaDB [project]> desc booking;
+-----+-----+-----+-----+-----+-----+
| Field          | Type      | Null | Key | Default | Extra      |
+-----+-----+-----+-----+-----+-----+
| booking_id     | int(11)   | NO   | PRI | NULL    | auto_increment |
| Number_of_seats | int(11)   | NO   |     | NULL    |              |
| fare_amount     | float     | NO   |     | NULL    |              |
| booking_status  | varchar(30) | NO   |     | NULL    |              |
| SEAT_TYPE       | varchar(20) | YES  |     | NULL    |              |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.016 sec)

MariaDB [project]>
```

Customer details : this table contains all the details related to the customer who had booked seats in the bus such as their name, contact number, etc.

```
MariaDB [project]> desc customer_details;
```

Field	Type	Null	Key	Default	Extra
customer_id	int(11)	NO	PRI	NULL	auto_increment
customer_name	varchar(50)	NO		NULL	
customer_contact	varchar(15)	NO		NULL	
customer_email	varchar(30)	YES		NULL	
booking_id	int(11)	NO	MUL	NULL	

```
5 rows in set (0.017 sec)

MariaDB [project]>
```

Payment Details : this table gives us the information about the payment made by the customers to make the booking and the mode of payment.

```
MariaDB [project]> desc payment_details;
```

Field	Type	Null	Key	Default	Extra
payment_id	int(11)	NO	PRI	NULL	
booking_id	int(11)	NO	MUL	NULL	
amount_paid	float	NO		NULL	
mode_of_payment	varchar(20)	YES		NULL	

```
4 rows in set (0.014 sec)

MariaDB [project]> _
```

Journey Details : this table contains details about the journey of the passengers that is their starting point of journey, destination ,etc.

```
MariaDB [project]> desc journey_details;
```

Field	Type	Null	Key	Default	Extra
PNR_No	int(11)	NO	PRI	NULL	
driver_name	varchar(30)	NO		NULL	
starting_point	varchar(30)	NO		NULL	
destination	varchar(30)	NO		NULL	
fare_amount	float	NO		NULL	
booking_id	int(11)	NO	MUL	NULL	

```
6 rows in set (0.014 sec)

MariaDB [project]>
```

CONTENTS OF THE TABLES

BOOKINGS:

```
MariaDB [project]> select * from booking;
```

booking_id	Number_of_seats	fare_amount	booking_status	SEAT_TYPE
1	2	1000	CONFIRMED	SLEEPER
2	1	500	CONFIRMED	SLEEPER
3	2	1000	CONFIRMED	SLEEPER
4	2	1000	CONFIRMED	SLEEPER
5	3	1500	CONFIRMED	SLEEPER
6	2	1000	CONFIRMED	SEATER
7	2	1000	CONFIRMED	SLEEPER
8	1	500	CONFIRMED	SEATER
9	2	900	CONFIRMED	SEATER
10	2	900	CONFIRMED	SEATER
11	3	1500	CONFIRMED	SLEEPER
12	2	1000	CONFIRMED	SEATER
13	4	1800	CONFIRMED	SEATER
14	2	1000	CONFIRMED	SLEEPER
15	1	450	CONFIRMED	SEATER
16	6	3000	CONFIRMED	SLEEPER
17	2	1000	CONFIRMED	SLEEPER
18	3	1500	CONFIRMED	SLEEPER
19	1	500	CONFIRMED	SLEEPER
20	2	1000	CONFIRMED	SLEEPER
21	2	900	CONFIRMED	SEATER
22	2	900	CONFIRMED	SEATER

```
22 rows in set (0.001 sec)
```

```
MariaDB [project]> █
```

CUSTOMER DETAILS:

```
MariaDB [project]> select * from customer_details;
```

customer_id	customer_name	customer_contact	customer_email	booking_id
101	SUMIT	987654321	sumit1103@gmail.com	1
102	SHUBHAM	987765432	shubham2922@gmail.com	2
103	SAKTHES	987765532	sakthes06@gmail.com	3
104	ANEESH	944765532	aneesh16@gmail.com	4
105	DEVESH	944798742	devesh04@gmail.com	5
106	RAJESH	944766742	rajesh54@gmail.com	6
107	PRIYA	944766542	priya14@gmail.com	7
108	KHUSHI	944766942	khushi14@gmail.com	8
109	SHIVA	944700942	shiva11@gmail.com	9
110	DEEPIKA	944785942	deepika04@gmail.com	10
111	DIVITH	944780242	divith5@gmail.com	11
112	SANJAY	944780742	sanji33@gmail.com	12
113	VIGNESH	944580742	vignesh13@gmail.com	13
114	OM	944222742	om83@gmail.com	14
115	SOHAM	944220942	soham73@gmail.com	15
116	ROHAN	944221542	rohan15@gmail.com	16
117	SAMRUDDHI	944221742	sam17@gmail.com	17
118	DIVYA	944221715	divya15@gmail.com	18
119	NIMESH	944279715	nimesh27@gmail.com	19
120	RAHUL	944274715	rahul88@gmail.com	20
121	HARSHU	942174715	harshu21@gmail.com	21
122	HIMANSHU	942172315	himanshu23@gmail.com	22

```
22 rows in set (0.001 sec)
```

```
MariaDB [project]>
```

PAYMENT DETAILS :

```
MariaDB [project]> select * from payment_details;
```

payment_id	booking_id	amount_paid	mode_of_payment
1001	1	1000	CASH
1002	2	500	CASH
1003	3	1000	CASH
1004	4	1000	UPI
1005	5	1500	CASH
1006	6	1000	CASH
1007	7	1000	UPI
1008	8	500	UPI
1009	9	900	CASH
1010	10	900	CASH
1011	11	1500	CASH
1012	12	1000	CASH
1013	13	1800	UPI
1014	14	1000	CASH
1015	15	450	CASH
1016	16	3000	UPI
1017	17	1000	CASH
1018	18	1500	CASH
1019	19	500	CASH
1020	20	1000	CASH
1021	21	900	CASH
1022	22	900	UPI

```
22 rows in set (0.001 sec)
```

```
MariaDB [project]>
```

JOURNEY DETAILS :

```
MariaDB [project]> select * from journey_details;
```

PNR_No	driver_name	starting_point	destination	fare_amount	booking_id
5001	RAGHU	MUMBAI	PUNE	1000	1
5002	GOKUL	CHENNAI	COIMBATORE	500	2
5003	VIPUL	PALAKKAD	BANGLORE	1000	3
5004	DIVAKAR	TIRUNELVELI	PALANI	1000	4
5005	DEEPAK	TUTICORIN	KANYAKUMARI	1500	5
5006	SANJAY	HYDERABAD	VIJAYAWADA	1000	6
5007	AMIR	JAIPUR	DELHI	1000	7
5008	RAGHU	MUMBAI	PUNE	500	8
5009	GOKUL	CHENNAI	COIMBATORE	900	9
5010	VIPUL	PALAKKAD	BANGLORE	900	10
5011	DIVAKAR	TIRUNELVELI	PALANI	1500	11
5012	DEEPAK	TUTICORIN	KANYAKUMARI	1000	12
5013	SANJAY	HYDERABAD	VIJAYAWADA	1800	13
5014	AMIR	JAIPUR	DELHI	1000	14
5015	RAGHU	MUMBAI	PUNE	450	15
5016	GOKUL	CHENNAI	COIMBATORE	3000	16
5017	VIPUL	PALAKKAD	BANGLORE	1000	17
5018	DIVAKAR	TIRUNELVELI	PALANI	1500	18
5019	DEEPAK	TUTICORIN	KANYAKUMARI	500	19
5020	SANJAY	HYDERABAD	VIJAYAWADA	1000	20
5021	AMIR	JAIPUR	DELHI	900	21
5022	RAGHU	MUMBAI	PUNE	900	22

```
22 rows in set (0.001 sec)
```

```
MariaDB [project]>
```

SUBQUERIES

1.Show details of passengers whose number of seats is same as booking id no.4

ANS:-

```
select * from booking where number_of_seats = (select number_of_seats
from booking where booking_id = 4);
```

```
MariaDB [project]> select * from booking where number_of_seats = (select number_of_seats from booking where booking_id = 4);
```

booking_id	Number_of_seats	fare_amount	booking_status	SEAT_TYPE
1	2	1000	CONFIRMED	SLEEPER
3	2	1000	CONFIRMED	SLEEPER
4	2	1000	CONFIRMED	SLEEPER
6	2	1000	CONFIRMED	SEATER
7	2	1000	CONFIRMED	SLEEPER
9	2	900	CONFIRMED	SEATER
10	2	900	CONFIRMED	SEATER
12	2	1000	CONFIRMED	SEATER
14	2	1000	CONFIRMED	SLEEPER
17	2	1000	CONFIRMED	SLEEPER
20	2	1000	CONFIRMED	SLEEPER
21	2	900	CONFIRMED	SEATER
22	2	900	CONFIRMED	SEATER

13 rows in set (0.001 sec)

```
MariaDB [project]> _
```

2. Show Details of passengers whose seat type is same as booking id no.21.

ANS:-

```
select * from booking where seat_type = (select seat_type from booking
where booking_id = 21);
```

```
MariaDB [project]> select * from booking where seat_type = (select seat_type from booking where booking_id = 21);
```

booking_id	Number_of_seats	fare_amount	booking_status	SEAT_TYPE
6	2	1000	CONFIRMED	SEATER
8	1	500	CONFIRMED	SEATER
9	2	900	CONFIRMED	SEATER
10	2	900	CONFIRMED	SEATER
12	2	1000	CONFIRMED	SEATER
13	4	1800	CONFIRMED	SEATER
15	1	450	CONFIRMED	SEATER
21	2	900	CONFIRMED	SEATER
22	2	900	CONFIRMED	SEATER

9 rows in set (0.012 sec)

```
MariaDB [project]>
```


3.Display booking id of passengers who has made payment same as payment id no 1016.

ANS:-

```
select * from payment_details where mode_of_payment =  
(select mode_of_payment from payment_details where  
payment_id = 1016);
```

```
MariaDB [project]> select * from payment_details where mode_of_payment = (select mode_of_payment from payment_details where payment_id = 1016);  
+-----+-----+-----+-----+  
| payment_id | booking_id | amount_paid | mode_of_payment |  
+-----+-----+-----+-----+  
| 1004 | 4 | 1000 | UPI |  
| 1007 | 7 | 1000 | UPI |  
| 1008 | 8 | 500 | UPI |  
| 1013 | 13 | 1800 | UPI |  
| 1016 | 16 | 3000 | UPI |  
| 1022 | 22 | 900 | UPI |  
+-----+-----+-----+-----+  
6 rows in set (0.001 sec)  
  
MariaDB [project]> _
```

VIEW

1.create view to show journey details .

ANS:- create view v2 as select * from journey_details;

```
MariaDB [project]> create view v2 as select * from journey_details;
Query OK, 0 rows affected (0.020 sec)

MariaDB [project]> select * from v2;
```

PNR_No	driver_name	starting_point	destination	fare_amount	booking_id
5001	RAGHU	MUMBAI	PUNE	1000	1
5002	GOKUL	CHENNAI	COIMBATORE	500	2
5003	VIPUL	PALAKKAD	BANGLORE	1000	3
5004	DIVAKAR	TIRUNELVELI	PALANI	1000	4
5005	DEEPAK	TUTICORIN	KANYAKUMARI	1500	5
5006	SANJAY	HYDERABAD	VIJAYAWADA	1000	6
5007	AMIR	JAIPUR	DELHI	1000	7
5008	RAGHU	MUMBAI	PUNE	500	8
5009	GOKUL	CHENNAI	COIMBATORE	900	9
5010	VIPUL	PALAKKAD	BANGLORE	900	10
5011	DIVAKAR	TIRUNELVELI	PALANI	1500	11
5012	DEEPAK	TUTICORIN	KANYAKUMARI	1000	12
5013	SANJAY	HYDERABAD	VIJAYAWADA	1800	13
5014	AMIR	JAIPUR	DELHI	1000	14
5015	RAGHU	MUMBAI	PUNE	450	15
5016	GOKUL	CHENNAI	COIMBATORE	3000	16
5017	VIPUL	PALAKKAD	BANGLORE	1000	17
5018	DIVAKAR	TIRUNELVELI	PALANI	1500	18
5019	DEEPAK	TUTICORIN	KANYAKUMARI	500	19
5020	SANJAY	HYDERABAD	VIJAYAWADA	1000	20
5021	AMIR	JAIPUR	DELHI	900	21
5022	RAGHU	MUMBAI	PUNE	900	22

```
22 rows in set (0.014 sec)

MariaDB [project]>
```

2.create a view to show starting point and destination from journey details table & number of seats and seat type from booking table

ANS :-

create view v5 AS select

journey_details.starting_point, journey_details.destination, booking.number_of_seats, booking.seat_type from journey_details, booking where journey_details.booking_id = booking.booking_id;

```
MariaDB [project]> create view v5 AS select journey_details.starting_point, journey_details.destination, booking.number_of_seats, booking.seat_type from journey_details, booking where journey_details.booking_id = booking.booking_id;
Query OK, 0 rows affected (0.015 sec)

MariaDB [project]> select * from v5;
```

starting_point	destination	number_of_seats	seat_type
MUMBAI	PUNE	2	SLEEPER
CHENNAI	COIMBATORE	1	SLEEPER
PALAKKAD	BANGLORE	2	SLEEPER
TIRUNELVELI	PALANI	2	SLEEPER
TUTICORIN	KANYAKUMARI	3	SLEEPER
HYDERABAD	VIJAYAWADA	2	SEATER
JAIPUR	DELHI	2	SLEEPER
MUMBAI	PUNE	1	SEATER
CHENNAI	COIMBATORE	2	SEATER
PALAKKAD	BANGLORE	2	SEATER
TIRUNELVELI	PALANI	3	SLEEPER
TUTICORIN	KANYAKUMARI	2	SEATER
HYDERABAD	VIJAYAWADA	4	SEATER
JAIPUR	DELHI	2	SLEEPER
MUMBAI	PUNE	1	SEATER
CHENNAI	COIMBATORE	6	SLEEPER
PALAKKAD	BANGLORE	2	SLEEPER
TIRUNELVELI	PALANI	3	SLEEPER
TUTICORIN	KANYAKUMARI	1	SLEEPER
HYDERABAD	VIJAYAWADA	2	SLEEPER
JAIPUR	DELHI	2	SEATER
MUMBAI	PUNE	2	SEATER

```
22 rows in set (0.002 sec)

MariaDB [project]>
```

3.create view to show booking status and fare amount from table booking.

ANS :-

```
MariaDB [project]> create view V6 AS select booking.booking_status,booking.fare_amount from booking;
Query OK, 0 rows affected (0.005 sec)

MariaDB [project]> select * from V6;
+-----+-----+
| booking_status | fare_amount |
+-----+-----+
| CONFIRMED      | 1000        |
| CONFIRMED      | 500         |
| CONFIRMED      | 1000        |
| CONFIRMED      | 1000        |
| CONFIRMED      | 1500        |
| CONFIRMED      | 1000        |
| CONFIRMED      | 1000        |
| CONFIRMED      | 500         |
| CONFIRMED      | 900         |
| CONFIRMED      | 900         |
| CONFIRMED      | 1500        |
| CONFIRMED      | 1000        |
| CONFIRMED      | 1800        |
| CONFIRMED      | 1000        |
| CONFIRMED      | 450         |
| CONFIRMED      | 3000        |
| CONFIRMED      | 1000        |
| CONFIRMED      | 1500        |
| CONFIRMED      | 500         |
| CONFIRMED      | 1000        |
| CONFIRMED      | 900         |
| CONFIRMED      | 900         |
+-----+-----+
22 rows in set (0.002 sec)

MariaDB [project]> _
```

GROUP BY AND ORDER BY

1.show the table in fare amount in ascending order

ANS:-

```
MariaDB [project]> select * from booking order by fare_amount asc;
```

booking_id	Number_of_seats	fare_amount	booking_status	SEAT_TYPE
15	1	450	CONFIRMED	SEATER
2	1	500	CONFIRMED	SLEEPER
19	1	500	CONFIRMED	SLEEPER
8	1	500	CONFIRMED	SEATER
22	2	900	CONFIRMED	SEATER
21	2	900	CONFIRMED	SEATER
10	2	900	CONFIRMED	SEATER
9	2	900	CONFIRMED	SEATER
17	2	1000	CONFIRMED	SLEEPER
20	2	1000	CONFIRMED	SLEEPER
14	2	1000	CONFIRMED	SLEEPER
12	2	1000	CONFIRMED	SEATER
1	2	1000	CONFIRMED	SLEEPER
3	2	1000	CONFIRMED	SLEEPER
7	2	1000	CONFIRMED	SLEEPER
4	2	1000	CONFIRMED	SLEEPER
6	2	1000	CONFIRMED	SEATER
5	3	1500	CONFIRMED	SLEEPER
18	3	1500	CONFIRMED	SLEEPER
11	3	1500	CONFIRMED	SLEEPER
13	4	1800	CONFIRMED	SEATER
16	6	3000	CONFIRMED	SLEEPER

```
22 rows in set (0.012 sec)
```

```
MariaDB [project]>
```

2.show table in booking id in descending order

ANS:-

```
MariaDB [project]> select * from booking order by booking_id desc;
```

booking_id	Number_of_seats	fare_amount	booking_status	SEAT_TYPE
22	2	900	CONFIRMED	SEATER
21	2	900	CONFIRMED	SEATER
20	2	1000	CONFIRMED	SLEEPER
19	1	500	CONFIRMED	SLEEPER
18	3	1500	CONFIRMED	SLEEPER
17	2	1000	CONFIRMED	SLEEPER
16	6	3000	CONFIRMED	SLEEPER
15	1	450	CONFIRMED	SEATER
14	2	1000	CONFIRMED	SLEEPER
13	4	1800	CONFIRMED	SEATER
12	2	1000	CONFIRMED	SEATER
11	3	1500	CONFIRMED	SLEEPER
10	2	900	CONFIRMED	SEATER
9	2	900	CONFIRMED	SEATER
8	1	500	CONFIRMED	SEATER
7	2	1000	CONFIRMED	SLEEPER
6	2	1000	CONFIRMED	SEATER
5	3	1500	CONFIRMED	SLEEPER
4	2	1000	CONFIRMED	SLEEPER
3	2	1000	CONFIRMED	SLEEPER
2	1	500	CONFIRMED	SLEEPER
1	2	1000	CONFIRMED	SLEEPER

```
22 rows in set (0.001 sec)
```

```
MariaDB [project]> _
```

3.GROUP BY NAME IN ASCENDING ORDER

Ans:-

```
MariaDB [project]> select * from customer_details group by customer_name;
```

customer_id	customer_name	customer_contact	customer_email	booking_id
104	ANEESH	944765532	aneesh16@gmail.com	4
110	DEEPIKA	944785942	deepika04@gmail.com	10
105	DEVESH	944798742	devesh04@gmail.com	5
111	DIVITH	944780242	divith5@gmail.com	11
118	DIVYA	944221715	divya15@gmail.com	18
121	HARSHU	942174715	harshu21@gmail.com	21
122	HIMANSHU	942172315	himanshu23@gmail.com	22
108	KHUSHI	944766942	khushi14@gmail.com	8
119	NIMESH	944279715	nimesh27@gmail.com	19
114	OM	944222742	om83@gmail.com	14
107	PRIYA	944766542	priya14@gmail.com	7
120	RAHUL	944274715	rahul88@gmail.com	20
106	RAJESH	944766742	rajesh54@gmail.com	6
116	ROHAN	944221542	rohan15@gmail.com	16
103	SAKTHES	987765532	sakthes06@gmail.com	3
117	SAMRUDDHI	944221742	sam17@gmail.com	17
112	SANJAY	944780742	sanji33@gmail.com	12
109	SHIVA	944700942	shiva11@gmail.com	9
102	SHUBHAM	987765432	shubham2922@gmail.com	2
115	SOHAM	944220942	soham73@gmail.com	15
101	SUMIT	987654321	sumit1103@gmail.com	1
113	VIGNESH	944580742	vignesh13@gmail.com	13

```
22 rows in set (0.001 sec)
```

```
MariaDB [project]> _
```

JOINS

1. Perform left join to get customer name seat type and mode of payment from tables booking, payment details and customer details.

ANS:

```
MariaDB [project]> select b.customer_name,c.seat_type,p.mode_of_payment from customer_details b left join booking c on b.booking_id=c.booking_id join payment_details p on b.booking_id=p.booking_id;
```

customer_name	seat_type	mode_of_payment
SUMIT	SLEEPER	CASH
SHUBHAM	SLEEPER	CASH
SAKTHES	SLEEPER	CASH
ANEESH	SLEEPER	UPI
DEVESH	SLEEPER	CASH
RAJESH	SEATER	CASH
PRIYA	SLEEPER	UPI
KHUSHI	SEATER	UPI
SHIVA	SEATER	CASH
DEEPIKA	SEATER	CASH
DIVITH	SLEEPER	CASH
SANDAY	SEATER	CASH
VIGNESH	SEATER	UPI
OM	SLEEPER	CASH
SOHAM	SEATER	CASH
ROHAN	SLEEPER	UPI
SAMRUDDHI	SLEEPER	CASH
DIVYA	SLEEPER	CASH
NIMESH	SLEEPER	CASH
RAHUL	SLEEPER	CASH
HARSHU	SEATER	CASH
HIMANSHU	SEATER	UPI

22 rows in set (0.002 sec)

- 2.perform right join to show customer name and seat type from table customer details and booking.

ANS:-

```
MariaDB [project]> select b.customer_name,c.seat_type from customer_details b right join booking c on b.booking_id=c.booking_id;
```

customer_name	seat_type
SUMIT	SLEEPER
SHUBHAM	SLEEPER
SAKTHES	SLEEPER
ANEESH	SLEEPER
DEVESH	SLEEPER
RAJESH	SEATER
PRIYA	SLEEPER
KHUSHI	SEATER
SHIVA	SEATER
DEEPIKA	SEATER
DIVITH	SLEEPER
SANJAY	SEATER
VIGNESH	SEATER
OM	SLEEPER
SOHAM	SEATER
ROHAN	SLEEPER
SAMRUDDHI	SLEEPER
DIVYA	SLEEPER
NIMESH	SLEEPER
RAHUL	SLEEPER
HARSHU	SEATER
HIMANSHU	SEATER

22 rows in set (0.011 sec)

```
MariaDB [project]>
```


ER DIAGRAM

