

**TOPIC:**

**BUS**

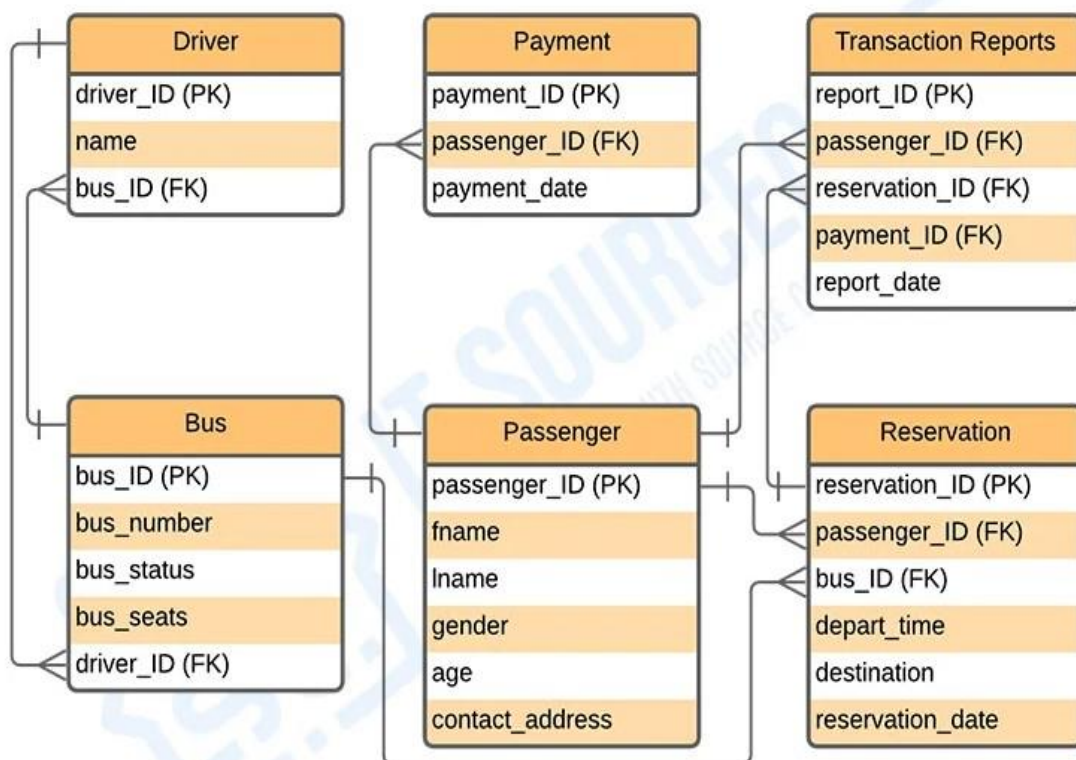
**RESERVATION**

**SYSTEM**

# **1.INTRODUCTION**

Our project is to computerize traveling company to manage data, so that all the transactions become fast and there should not be any error in transaction like calculation mistake, bill generation and other things. It replaces all the paper work. It keeps records of all bills also, giving to ensure 100% successful implementation of the computerized Bus reservation system. Our reservation system has three modules. First module helps the customer to enquire the availability of seats in a particular bus at particular date. Second module helps him to reserve a ticket. Using third module he can cancel a reserved ticket.

## 2.ER DIAGRAM



### 3.DATABASE DESIGN

**DATABASE : BUS\_RESERVATION\_SYSTEM**

**TABLES:**

**1.CUSTOMER**

**2.BUS**

**3.DRIVER**

**4.PAYMENT**

**5.RESERVATION**

**6.TRANSACTION\_REPORT**

```
MariaDB [bus_reservation_system]> show tables;
+-----+
| Tables_in_bus_reservation_system |
+-----+
| bus                               |
| customer                         |
| driver                           |
| payment                           |
| reservation                       |
| transaction_report                |
+-----+
```

## DESCRIBE TABLES:

### BUS:

```
MariaDB [bus_reservation_system]> DESC BUS;
```

Field	Type	Null	Key	Default	Extra
BUS_ID	int(11)	NO	PRI	NULL	
BUS_NUMBER	int(11)	YES		NULL	
BUS_TYPE	varchar(225)	YES		NULL	
BUS_SEATS	int(11)	YES		NULL	
DRIVER_ID	int(11)	YES	MUL	NULL	

### CUSTOMER:

```
MariaDB [bus_reservation_system]> DESC CUSTOMER;
```

Field	Type	Null	Key	Default	Extra
CUSTOMER_ID	int(11)	NO	PRI	NULL	
FNAME	varchar(255)	YES		NULL	
LNAME	varchar(255)	YES		NULL	
GENDER	varchar(2)	YES		NULL	
AGE	int(5)	YES		NULL	
CONTACT_NO	int(10)	YES		NULL	

### DRIVER:

```
MariaDB [bus_reservation_system]> DESC DRIVER;
```

Field	Type	Null	Key	Default	Extra
DRIVER_ID	int(11)	NO	PRI	NULL	
NAME	varchar(225)	YES		NULL	
BUS_ID	int(11)	YES	MUL	NULL	

## PAYMENT:

```
MariaDB [bus_reservation_system]> DESC PAYMENT;
```

Field	Type	Null	Key	Default	Extra
PAYMENT_ID	int(11)	NO	PRI	NULL	
CUSTOMER_ID	int(11)	YES	MUL	NULL	
RESERVATION_ID	varchar(11)	YES	MUL	NULL	
PAYMENT_DATE	date	YES		NULL	

## RESERVATION:

```
MariaDB [bus_reservation_system]> DESC RESERVATION;
```

Field	Type	Null	Key	Default	Extra
RESERVATION_ID	varchar(225)	NO	PRI	NULL	
CUSTOMER_ID	int(11)	YES	MUL	NULL	
BUS_ID	int(11)	YES		NULL	
DEPARTURE_TIME	datetime	YES		NULL	
DESTINATION	varchar(225)	YES		NULL	
RESERVATION_DATE	date	YES		NULL	

## TRANSACTION\_REPORT:

```
MariaDB [bus_reservation_system]> DESC transaction_report;
```

Field	Type	Null	Key	Default	Extra
REPORT_ID	int(11)	NO	PRI	NULL	
CUSTOMER_ID	int(11)	YES	MUL	NULL	
RESERVATION_ID	varchar(225)	YES	MUL	NULL	
PAYMENT_ID	int(11)	YES	MUL	NULL	
REPORT_DATE	date	YES		NULL	

## TABLES:

## CUSTOMER:

>>> SELECT \* FROM CUSTOMER;

```
MariaDB [bus_reservation_system]> SELECT * FROM CUSTOMER;
```

CUSTOMER_ID	FNAME	LNAME	GENDER	AGE	CONTACT_NO
1	ADTIYA	MANE	M	21	2147483647
2	YATISH	KADAM	M	22	2147483647
3	LOVEEN	TEJI	M	24	2147483647
4	SAI	SHINDE	M	26	2147483647
5	GAURAV	KAMBLE	M	24	2147483647
6	HITESH	MANE	M	22	2147483647
7	SIDDHESH	MANE	M	21	2147483647
8	NIKHIL	MANE	M	21	2147483647
9	AKANSHA	SAWANT	F	21	2147483647
10	SAKSHI	CHAVAN	F	20	2103448491
11	ROSHNI	DESAI	F	21	2147483647
12	SIDDHI	PARAB	F	21	2147483647
13	SWATI	NIKAM	F	21	2147483647
14	PRAGATI	WANI	F	21	238586362
15	JANVI	DAVIL	F	21	2147483647
16	GITESH	KADAM	M	21	2147483647
17	ANJALI	SHELAR	F	23	2147483647
18	HARSHAL	BHOSALE	M	22	2147483647
19	ANJALI	SHELAR	F	24	2147483647
20	SACHIN	DAVLI	M	26	2147483647
21	ANSHUKA	PAWAR	F	22	1374932981
22	PRATIK	LAD	M	20	2147483647
23	APOORVA	GAIKWAD	F	25	2147483647
24	ISHANT	MAHADIK	M	26	1854701238
25	BAGHSHREE	KAKDE	F	22	2147483647
26	JAYESH	NAIK	M	24	2147483647



## BUS:

>>>SELECT \* FROM BUS;

```
MariaDB [bus_reservation_system]> SELECT * FROM BUS;
```

BUS_ID	BUS_NUMBER	BUS_TYPE	BUS_SEATS	DRIVER_ID
101	2345	AC	35	10
102	1358	NON AC	45	20
103	1245	NON AC	65	30
104	1665	AC	35	40

## DRIVER:

>>>SELECT \* FROM DRIVER;

```
MariaDB [bus_reservation_system]> SELECT * FROM DRIVER;
```

DRIVER_ID	NAME	BUS_ID
10	GANESH	101
20	RAVI	102
30	GANPAT	103
40	PRATHMESH	104

## PAYMENT:

>>>SELECT \* FROM PAYMENT;

```
MariaDB [bus_reservation_system]> SELECT * FROM PAYMENT;
```

PAYMENT_ID	CUSTOMER_ID	RESERVATION_ID	PAYMENT_DATE
1001	1	1	2021-12-28
1002	2	2	2021-12-26
1003	3	3	2021-12-28
1004	4	4	2021-12-25
1005	5	5	2021-12-24
1006	6	6	2021-12-29
1007	7	7	2021-12-30
1008	8	8	2021-12-31
1009	9	9	2021-12-25



## RESERVATION :

>>>SELECT \* FROM RESERVATION;

```
MariaDB [bus_reservation_system]> SELECT * FROM RESERVATION;
```

RESERVATION_ID	CUSTOMER_ID	BUS_ID	DEPARTURE_TIME	DESTINATION	RESERVATION_DATE
1	1	101	2022-01-01 06:00:00	MUMBAI	2021-12-28
2	2	102	2022-01-03 08:00:00	NAGPUR	2021-12-26
3	3	101	2022-01-05 06:00:00	MUMBAI	2021-12-28
4	4	102	2022-01-07 08:00:00	NAGPUR	2021-12-25
5	5	103	2022-01-09 12:00:00	GOA	2021-12-24
6	6	101	2022-01-10 06:00:00	MUMBAI	2021-12-29
7	7	103	2022-01-09 06:00:00	GOA	2021-12-30
8	8	103	2022-01-07 08:00:00	NAGPUR	2021-12-31
9	9	101	2022-01-10 06:00:00	MUMBAI	2021-12-25

## TRANSACTION\_REPORT:

>>>SELECT \* FROM TRANSACTION\_REPORT;

```
MariaDB [bus_reservation_system]> SELECT * FROM TRANSACTION_REPORT;
```

REPORT_ID	CUSTOMER_ID	RESERVATION_ID	PAYMENT_ID	REPORT_DATE
1	1	1	1001	2021-12-28
2	2	2	1002	2021-12-26
3	3	3	1003	2021-12-28
4	4	4	1004	2021-12-25
5	5	5	1005	2021-12-24

## JOINS:

**1.>>> SELECT B.BUS\_NUMBER,B.BUS\_TYPE,D.NAME FROM DRIVER D RIGHT JOIN BUS B ON D.BUS\_ID=B.BUS\_ID;**

**OUTPUT:**

```
MariaDB [bus_reservation_system]> select b.bus_number,b.bus_type,d.name from driver d right join bus b ON d.bus_id=b.bus_id;
```

bus_number	bus_type	name
2345	AC	GANESH
1358	NON AC	RAVI
1245	NON AC	GANPAT
1665	AC	PRATHMESH

4 rows in set (0.001 sec)

**2.>>> SELECT C.FNAME , R.RESERVATION\_DATE FROM CUSTOMER C INNER JOIN RESERVATION R ON C.CUSTOMER\_ID = R.CUSTOMER\_ID:**

```
MariaDB [bus_reservation_system]> select C.Fname , R.Reservation_date from customer C INNER Join Reservation R on C.customer_id = R.Customer_id;
```

Fname	Reservation_date
ADITYA	2021-12-28
YATISH	2021-12-26
LOVEEN	2021-12-28
SAI	2021-12-25
GAURAV	2021-12-24
HITESH	2021-12-29
SIDDHESH	2021-12-30
NIKHIL	2021-12-31
AKANSHA	2021-12-25

9 rows in set (0.002 sec)

**3.>>> SELECT C.FNAME , P.PAYMENT\_DATE ,P.PAYMENT\_ID FROM CUSTOMER C LEFT JOIN PAYMENT P ON C.CUSTOMER\_ID = P.CUSTOMER\_ID:**

```
MariaDB [bus_reservation_system]> select c.fname ,p.payment_date,p.payment_id from customer c left join payment p on c.customer_id=p.customer_id;
```

fname	payment_date	payment_id
ADITYA	2021-12-28	1001
YATISH	2021-12-26	1002
LOVEEN	2021-12-28	1003
SAI	2021-12-25	1004
GAURAV	2021-12-24	1005
HITESH	2021-12-29	1006
SIDDHESH	2021-12-30	1007
NIKHIL	2021-12-31	1008
AKANSHA	2021-12-25	1009
SAKSHI	NULL	NULL
ROSHNI	NULL	NULL
SIDDHI	NULL	NULL
SWATI	NULL	NULL
PRAGATI	NULL	NULL
JANVI	NULL	NULL
GITESH	NULL	NULL
ANJALI	NULL	NULL
HARSHAL	NULL	NULL
ANJALI	NULL	NULL
SACHIN	NULL	NULL
ANSHUKA	NULL	NULL
PRATIK	NULL	NULL
APOORVA	NULL	NULL
ISHANT	NULL	NULL
BAGHSHREE	NULL	NULL
JAYESH	NULL	NULL

## SUBQUERIES:

1.>>> SELECT \* FROM RESERVATION WHERE BUS\_ID IN (SELECT BUS\_ID FROM DRIVER WHERE NAME = 'GANESH');

```
MariaDB [bus_reservation_system]> select * from reservation where bus_id in (select bus_id from driver where name = 'ganesh');
+-----+-----+-----+-----+-----+-----+
| RESERVATION_ID | CUSTOMER_ID | BUS_ID | DEPARTURE_TIME | DESTINATION | RESERVATION_DATE |
+-----+-----+-----+-----+-----+-----+
| 1              | 1           | 101    | 2022-01-01 06:00:00 | MUMBAI      | 2021-12-28       |
| 3              | 3           | 101    | 2022-01-05 06:00:00 | MUMBAI      | 2021-12-28       |
| 6              | 6           | 101    | 2022-01-10 06:00:00 | MUMBAI      | 2021-12-29       |
| 9              | 9           | 101    | 2022-01-10 06:00:00 | MUMBAI      | 2021-12-25       |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.004 sec)
```

2.>>> SELECT C.FNAME ,C.LNAME,R.RESERVATION\_DATE FROM CUSTOMER C, RESERVATION R WHERE C.CUSTOMER\_ID=R.CUSTOMER\_ID AND RESERVATION\_DATE =(SELECT RESERVATION\_DATE FROM RESERVATION WHERE RESERVATION\_ID ='1');

```
MariaDB [bus_reservation_system]> SELECT C.FNAME ,C.LNAME,R.RESERVATION_DATE FROM CUSTOMER C, RESERVATION R WHERE C.CUSTOMER_ID=R.CUSTOMER_ID AND RESERVATION_DATE =(SELECT RESERVATION_DATE FROM RESERVATION WHERE RESERVATION_ID ='1');
+-----+-----+-----+
| FNAME | LNAME | RESERVATION_DATE |
+-----+-----+-----+
| ADITYA | MANE  | 2021-12-28       |
| LOVEEN | TEJI  | 2021-12-28       |
+-----+-----+-----+
```

3. >>>SELECT \* FROM CUSTOMER\_RESERVATION\_DEATILS WHERE CUSTOMER\_ID = (SELECT CUSTOMER\_ID FROM RESERVATION WHERE DESTINATION =`GOA`);

```
MariaDB [bus_reservation_system]> select * from customer_reservation_deatils where customer_id =(select customer_id from reservation where destination='goa');
+-----+-----+-----+-----+-----+-----+-----+-----+
| customer_id | fname   | lname  | gender | age | reservation_id | bus_id | departure_time | destination |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 5           | GAURAV  | KAMBLE | M      | 24  | 5              | 103    | 2022-01-09 12:00:00 | GOA         |
| 7           | SIDDHESH | MANE   | M      | 21  | 7              | 103    | 2022-01-09 06:00:00 | GOA         |
+-----+-----+-----+-----+-----+-----+-----+-----+
```

## VIEWS:

1. create view `customer_reservation_deatils` as select `c.customer_id,c.fname,c.lname,c.gender,c.age,r.reservation_id,r.bus_id,r.departure_time,r.destination` from customer `c`, reservation `r` where `c.customer_id=r.customer_id`;

```
MariaDB [bus_reservation_system]> select * from customer_reservation_deatils;
```

customer_id	fname	lname	gender	age	reservation_id	bus_id	departure_time	destination
1	ADTIYA	MANE	M	21	1	101	2022-01-01 06:00:00	MUMBAI
2	YATISH	KADAM	M	22	2	102	2022-01-03 08:00:00	NAGPUR
3	LOVEEN	TEJI	M	24	3	101	2022-01-05 06:00:00	MUMBAI
4	SAI	SHINDE	M	26	4	102	2022-01-07 08:00:00	NAGPUR
5	GAURAV	KAMBLE	M	24	5	103	2022-01-09 12:00:00	GOA
6	HITESH	MANE	M	22	6	101	2022-01-10 06:00:00	MUMBAI
7	SIDDHESH	MANE	M	21	7	103	2022-01-09 06:00:00	GOA
8	NIKHIL	MANE	M	21	8	103	2022-01-07 08:00:00	NAGPUR
9	AKANSHA	SAWANT	F	21	9	101	2022-01-10 06:00:00	MUMBAI

```
9 rows in set (0.024 sec)
```