### Task 1

1. Create the database named "TicketBookingSystem"

```
mysql> create database TicketBookingSystem;
Query OK, 1 row affected (0.01 sec)
```

2. Write SQL scripts to create the mentioned tables with appropriate data types, constraints, and relationships.

# • Venu

```
mysql> use TickeyBookingSystem;
ERROR 1049 (42000): Unknown database 'tickeybookingsystem'
mysql> use TicketBookingSystem;
Database changed
mysql> create table venue(
    -> venueID char(5) primary key,
    -> venueName varchar(255),
    -> address text
    -> );
Query OK, 0 rows affected (0.04 sec)
mysql> DESC venue;
            Type
  Field
                           | Null | Key | Default | Extra
  venueID
             char(5)
                             NO
                                    PRI
                                          NULL
              varchar(255)
                             YES
                                          NULL
  venueName
                             YES
  address
             text
                                          NULL
 rows in set (0.00 sec)
```

### Event

```
/sql> create table t_event(
  -> eventID char(5) primary key,
  -> eventName varchar(255),
      -> eventDate date,
     -> eventTime time,
-> venueID char(5),
         totalSeats int,
    -> totalseass int,
-> availableSeats int,
-> ticketPrice decimal(10,2),
-> eventType set('Movie', 'Concert', 'Sports'),
-> foreign key(venueID) references venue(venueID) on delete cascade on update cascade
-> );
Duery OK, 0 rows affected (0.04 sec)
mysql> DESC T_event;
 Field
                                                                             | Null | Key | Default | Extra |
                            char(5)
                            varchar(255)
                                                                                                    NULL
 eventDate
                           date
                                                                                                    NULL
 eventTime
                           time
                                                                                YES
                                                                                                    NULL
                           char(5)
                           int
int
                                                                                                    NULL
NULL
 totalSeats
  availableSeats
                                                                                YES
                           decimal(10,2)
set('Movie','Concert','Sports')
                                                                                                    NULL
 rows in set (0.00 sec)
```

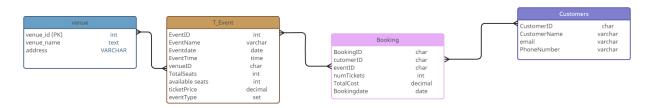
#### Customers

```
mysql> create table customer(
    -> customerID char(5) primary key,
    -> customerName varchar(255),
    -> email varchar(30) unique,
    -> phoneNumber varchar(10) unique
    -> );
Query OK, 0 rows affected (0.04 sec)
mysql> DESC customer;
 Field
                                 Null |
                                        Key | Default | Extra
                 Type
 customerID
                 char(5)
                                 NO
                                        PRI
                                              NULL
 customerName
                 varchar(255)
                                 YES
                                              NULL
 email
                 varchar(30)
                                 YES
                                        UNI
                                              NULL
 phoneNumber
                 varchar(10)
                                 YES
                                        UNI
                                              NULL
 rows in set (0.00 sec)
```

# Booking

```
mysql> create table booking(
   -> bookingID char(5) primary key,
   -> customerID char(5),
   -> eventID char(5),
   -> numTickets int,
   -> totalCost decimal(12, 2),
   -> bookingDate date,
   -> foreign key(customerID) references customer(customerID) on delete cascade on update cascade,
   -> foreign key(eventID) references t_event(eventID) on delete cascade on update cascade
Query OK, 0 rows affected (0.04 sec)
mysql> DESC Booking;
                                Null | Key | Default | Extra
 Field
                Type
 bookingID
                char(5)
                                NO
                                       PRI
                                              NULL
                char(5)
 customerID
                                YES
                                       MUL
                                             NULL
 eventID
                char(5)
                                       MUL
                                             NULL
 numTickets
                int
                                YES
                                             NULL
 totalCost
                decimal(12,2)
                                YES
                                             NULL
                                YES
 bookingDate
                date
                                             NULL
 rows in set (0.00 sec)
```

3. Create an ERD (Entity Relationship Diagram) for the database.



4. Create appropriate Primary Key and Foreign Key constraints for referential integrity

```
mysql> DESC venue;
                                        Null | Key
  Field
                                                          Default
                                                                        Extra
                  Type
  venueID
                                        NO
                                                  PRI
                   char(5)
                                                          NULL
                                                          NULL
                   varchar(255)
                                        YES
  venueName
  address
                                        YES
                                                          NULL
                   text
  rows in set (0.00 sec)
nysql> DESC T_event;
                                         Null | Key | Default | Extra |
 Field
              char(5)
varchar(255)
date
 eventName
eventDate
                                          YES
YES
                                                    NULL
NULL
                                          YES
YES
YES
                                                    NULL
NULL
 eventTime
              time
              char(5)
 venueID
 totalSeats
              int
decimal(10,2)
set('Movie','Concert','Sports')
 availableSeats
ticketPrice
                                          YES
YES
                                                    NULL
NULL
 eventType
 rows in set (0.00 sec)
mysql> DESC customer;
                                            Null |
                                                            Default
  Field
                      Type
                                                     Key
                                                                            Extra
  customerID
                       char(5)
                                            NO
                                                      PRI
                                                              NULL
                       varchar(255)
                                            YES
                                                              NULL
  customerName
  email
                       varchar(30)
                                            YES
                                                      UNI
                                                              NULL
                       varchar(10)
                                            YES
  phoneNumber
                                                      UNI
                                                              NULL
  rows in set (0.00 sec)
mysql> DESC Booking;
 Field
                 Type
                                  Null | Key | Default | Extra
```

PRI

MUL

MUL

NULL

NULL

NULL

NULL

NULL

NULL

NO

YES

YES

YES

bookingID

eventID

customerID

numTickets

bookingDate

totalCost

char(5)

char(5)

char(5)

decimal(12,2)

int

date

rows in set (0.00 sec)