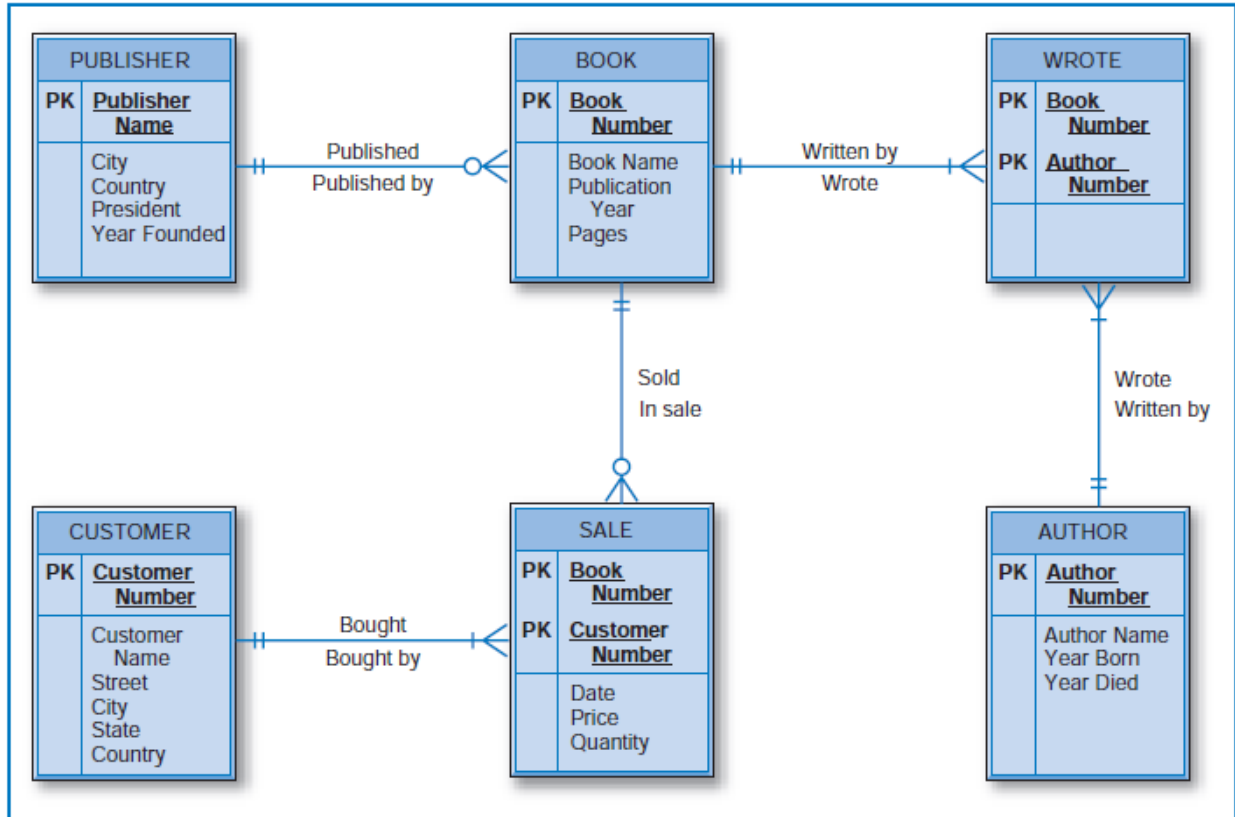# CREATE DATABASE USING ER DIAGRAM

ERD:

DATABASE:

1)Publisher Table:

create table Publisher (Publisher_name varchar(50) primary key, city varchar(100) not null, country varchar(100) not null, president varchar(150) not null, year_founded int);

```
mysql> create table Publisher (Publisher_name varchar(50) primary key, city varchar(100)
not null, country varchar(100) not null, president varchar(150) not null, year_founded in
t);
Query OK, 0 rows affected (0.07 sec)

mysql> desc Publisher;
+----------------+--------------+------+-----+---------+-------+
| Field          | Type         | Null | Key | Default | Extra |
+----------------+--------------+------+-----+---------+-------+
| Publisher_name | varchar(50)  | NO   | PRI | NULL    |       |
| city           | varchar(100) | NO   |     | NULL    |       |
| country        | varchar(100) | NO   |     | NULL    |       |
| president      | varchar(150) | NO   |     | NULL    |       |
| year_founded   | int          | YES  |     | NULL    |       |
+----------------+--------------+------+-----+---------+-------+
5 rows in set (0.01 sec)
```

2) Book Table

 create table Book (book_number int primary key, book_name varchar(100) not null, publication_year int not null, pages int not null, publisher_name varchar(100) not null, foreign key(publisher_name) references Publisher(publisher_name));

```
mysql> create table Book (book_number int primary key, book_name varchar(100) not null, p
ublication_year int not null, pages int not null, publisher_name varchar(100) not null,
    -> foreign key(publisher_name) references Publisher(publisher_name));
Query OK, 0 rows affected (0.08 sec)

mysql> desc Book;
+------------------+--------------+------+-----+---------+-------+
| Field            | Type         | Null | Key | Default | Extra |
+------------------+--------------+------+-----+---------+-------+
| book_number      | int          | NO   | PRI | NULL    |       |
| book_name        | varchar(100) | NO   |     | NULL    |       |
| publication_year | int          | NO   |     | NULL    |       |
| pages            | int          | NO   |     | NULL    |       |
| publisher_name   | varchar(100) | NO   | MUL | NULL    |       |
+------------------+--------------+------+-----+---------+-------+
5 rows in set (0.00 sec)
```

3)Customer Table

create table Customer (Customer_number int primary key, Customer_name varchar(50) not null,street varchar(100) not null, city varchar(100) not null, state varchar(100) not null, country varchar(100) not null);

```
mysql> create table Customer (Customer_number int primary key, Customer_name varchar(50)
not null,street varchar(100) not null, city varchar(100) not null, state varchar(100) not
 null, country varchar(100) not null);
Query OK, 0 rows affected (0.06 sec)

mysql> desc Customer;
+-----------------+--------------+------+-----+---------+-------+
| Field           | Type         | Null | Key | Default | Extra |
+-----------------+--------------+------+-----+---------+-------+
| Customer_number | int          | NO   | PRI | NULL    |       |
| Customer_name   | varchar(50)  | NO   |     | NULL    |       |
| street          | varchar(100) | NO   |     | NULL    |       |
| city            | varchar(100) | NO   |     | NULL    |       |
| state           | varchar(100) | NO   |     | NULL    |       |
| country         | varchar(100) | NO   |     | NULL    |       |
+-----------------+--------------+------+-----+---------+-------+
6 rows in set (0.00 sec)
```

4) Sale Table

create table sale (book_number int, Customer_number int, date_of_sale date not null, price int not null, quantity int not null, primary key(book_number, customer_number), foreign key(book_number) references book(book_number), foreign key(customer_number) references customer(customer_number));

```
mysql> create table sale (book_number int, Customer_number int, date_of_sale date not nul
l, price int not null, quantity int not null, primary key(book_number, customer_number),
foreign key(book_number) references book(book_number), foreign key(customer_number) refer
ences customer(customer_number));
Query OK, 0 rows affected (0.06 sec)

mysql> desc sale;
+-----------------+------+------+-----+---------+-------+
| Field           | Type | Null | Key | Default | Extra |
+-----------------+------+------+-----+---------+-------+
| book_number     | int  | NO   | PRI | NULL    |       |
| Customer_number | int  | NO   | PRI | NULL    |       |
| date_of_sale    | date | NO   |     | NULL    |       |
| price           | int  | NO   |     | NULL    |       |
| quantity        | int  | NO   |     | NULL    |       |
+-----------------+------+------+-----+---------+-------+
5 rows in set (0.00 sec)
```

5) Author Table

create table Author (author_number int primary key, author_name varchar(100) not null, year_born int not null, year_died int not null);

```
mysql> create table Author (author_number int primary key, author_name varchar(100) not n
ull, year_born int not null, year_died int not null);
Query OK, 0 rows affected (0.14 sec)

mysql> desc Author;
+---------------+--------------+------+-----+---------+-------+
| Field         | Type         | Null | Key | Default | Extra |
+---------------+--------------+------+-----+---------+-------+
| author_number | int          | NO   | PRI | NULL    |       |
| author_name   | varchar(100) | NO   |     | NULL    |       |
| year_born     | int          | NO   |     | NULL    |       |
| year_died     | int          | NO   |     | NULL    |       |
+---------------+--------------+------+-----+---------+-------+
4 rows in set (0.00 sec)
```

6) Wrote Table

 create table Wrote (book_number int, author_number int, foreign key(book_number) references
book(book_number), foreign key(author_number) references author(author_number));

```
mysql> create table Wrote (book_number int, author_number int, foreign key(book_number) r
eferences book(book_number), foreign key(author_number) references author(author_number))
;
Query OK, 0 rows affected (0.07 sec)

mysql> desc wrote;
+---------------+------+------+-----+---------+-------+
| Field         | Type | Null | Key | Default | Extra |
+---------------+------+------+-----+---------+-------+
| book_number   | int  | YES  | MUL | NULL    |       |
| author_number | int  | YES  | MUL | NULL    |       |
+---------------+------+------+-----+---------+-------+
2 rows in set (0.00 sec)
```