

mysql> create database library;
Query OK, 1 row affected (0.19 sec)

mysql> use library;
Database changed

mysql> show tables;
Empty set (0.07 sec)

mysql> create table admin(
-> id int(2),
-> username varchar(20),
-> password varchar(20),
-> firstname varchar(20),
-> lastname varchar(20),
-> mobile varchar(10),
-> email_id varchar(50));
Query OK, 0 rows affected, 1 warning (0.96 sec)

mysql> insert into admin(id, username, password, firstname, lastname,mobile,email_id) values
-> (1, 'yograj123', 'sai123', 'yograj', 'gadekar', '7083601202', 'yograjgadekar122@gmail.com'),
-> (2, 'swapnil123', 'kanade123', 'Swapnil', 'Kanade', '7584856222', 'swapnilkanade22@gmail.com'),
-> (3, 'mayuri123', 'gaikwad123', 'Mayuri', 'Gaikwad', '9758825657', 'mayurigaikwad42@gmail.com'),
-> (4, 'nikhil123', 'rajgude123', 'Nikhil', 'Rajgude', '7785896145', 'nikhilrajgude88@gmail.com');
Query OK, 4 rows affected (0.12 sec)
Records: 4 Duplicates: 0 Warnings: 0

```
mysql> desc admin;
```

Field	Type	Null	Key	Default	Extra
id	int	NO	PRI	NULL	
username	varchar(20)	YES		NULL	
password	varchar(20)	YES		NULL	
firstname	varchar(20)	YES		NULL	
lastname	varchar(20)	YES		NULL	
mobile	varchar(10)	YES		NULL	
email_id	varchar(50)	YES		NULL	

7 rows in set (0.01 sec)

```
mysql> select * from admin;
```

id	username	password	firstname	lastname	mobile	email_id
1	yograj123	sai123	yograj	gadekar	7083601202	yograjgadekar122@gmail.com
2	swapnil123	kanade123	Swapnil	Kanade	7584856222	swapnilkanade22@gmail.com
3	mayuri123	gaikwad123	Mayuri	Gaikwad	9758825657	mayurigaikwad42@gmail.com
4	nikhil123	rajgude123	Nikhil	Rajgude	7785896145	nikhilrajgude88@gmail.com

4 rows in set (0.03 sec)

```
mysql> create table books(
-> book_id int(4),
-> title varchar(20),
-> author varchar(20),
-> price varchar(10),
-> publisher varchar(50),
-> publish_date date);
Query OK, 0 rows affected, 1 warning (1.04 sec)

mysql> insert into books(book_id, title, author, price, publisher, publish_date) values
-> (01, 'C_programming', 'yashwant_kanetkar', '260', 'TexMax', '2010-08-10');
-> (02, 'C++_programming', 'yashwant_kanetkar', '360', 'TechMax', '2011-10-12'),
-> (03, 'MySQL_Database', 'Amit_sharma', '400', 'Techknowledge', '2011-08-11');
-> (04, 'Python', 'Amit_Shukla', '450', 'Techknowledge', '2007-05-10'),
-> (05, 'RDBMS', 'Rupali_Shelake', '205', 'ICEBreakers', '2011-11-15'),
-> (06, 'Software_Development ', 'Vijay_Chauthari', '310', 'TechGuru', '2011-12-18'),
-> (07, 'Physics ', 'Arvind_Ganvir', '150', 'Navneet', '2008-02-25');
Query OK, 7 rows affected (0.10 sec)
Records: 7 Duplicates: 0 Warnings: 0
```

```
mysql> desc books;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| book_id    | int           | NO   | PRI | NULL    |       |
| title      | varchar(20)   | YES  |     | NULL    |       |
| author     | varchar(20)   | YES  |     | NULL    |       |
| price      | varchar(10)   | YES  |     | NULL    |       |
| publisher  | varchar(50)   | YES  |     | NULL    |       |
| publish_date | date         | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)

mysql> select * from books;
+-----+-----+-----+-----+-----+-----+
| book_id | title          | author          | price | publisher    | publish_date |
+-----+-----+-----+-----+-----+-----+
| 1       | C_programming | yashwant_kanetkar | 260   | TexMax       | 2010-08-10   |
| 2       | C++_programming | yashwant_kanetkar | 360   | TechMax      | 2011-10-12   |
| 3       | MySQL_Database | Amit_sharma     | 400   | Techknowledge | 2011-08-11   |
| 4       | Python        | Amit_Shukla     | 450   | Techknowledge | 2007-05-10   |
| 5       | RDBMS         | Rupali_Shelake  | 205   | ICEBreakers  | 2011-11-15   |
| 6       | Software_Development | Vijay_Chauthari | 310   | TechGuru     | 2011-12-18   |
| 7       | Physics       | Arvind_Ganvir   | 150   | Navneet      | 2008-02-25   |
+-----+-----+-----+-----+-----+-----+
7 rows in set (0.08 sec)
```

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```
mysql> create table borrow(  
-> book_id int(4),  
-> issue_id int(4),  
-> student_id varchar(20),  
-> issuedate date,  
-> returndate date,  
-> fine int(10));  
Query OK, 0 rows affected, 2 warnings (1.80 sec)
```

```
mysql> insert into issued_book values  
-> (01,03,'STD001','2018-08-22','2018-09-22','150'),  
-> (02,04,'STD005','2017-04-11','2017-04-17','050'),  
-> (03,02,'STD002','2019-07-14','2019-07-17','000'),  
-> (04,02,'STD003','2019-04-14','2019-04-17','050'),  
-> (05,01,'STD004','2018-08-25','2019-07-29','300');  
Query OK, 5 rows affected (0.21 sec)  
Records: 5 Duplicates: 0 Warnings: 0
```

```
mysql> desc issued_book;  
+-----+-----+-----+-----+-----+-----+  
| Field      | Type          | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| issue_id   | int           | NO   | PRI | NULL    |       |  
| book_id    | int           | YES  |     | NULL    |       |  
| student_id | varchar(20)   | YES  |     | NULL    |       |  
| issuedate  | date          | YES  |     | NULL    |       |  
| returndate | date          | YES  |     | NULL    |       |  
| fine       | int           | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
6 rows in set (0.00 sec)  
  
mysql> select * from issued_book;  
+-----+-----+-----+-----+-----+-----+  
| issue_id | book_id | student_id | issuedate | returndate | fine |  
+-----+-----+-----+-----+-----+-----+  
| 1 | 3 | STD001 | 2018-08-22 | 2018-09-22 | 150 |  
| 2 | 4 | STD005 | 2017-04-11 | 2017-04-17 | 50 |  
| 3 | 2 | STD002 | 2019-07-14 | 2019-07-17 | 0 |  
| 4 | 2 | STD003 | 2019-04-14 | 2019-04-17 | 50 |  
| 5 | 1 | STD004 | 2018-08-25 | 2019-07-29 | 300 |  
+-----+-----+-----+-----+-----+-----+  
5 rows in set (0.01 sec)
```

```
mysql> create table students(  
-> id int(4),  
-> student_id varchar(20),  
-> first_name varchar(20),  
-> last_name varchar(20),  
-> email_id varchar(50),  
-> mobile_no varchar(10),  
-> password varchar(50));  
Query OK, 0 rows affected, 1 warning (1.21 sec)
```

```
mysql> insert into students values  
-> (01,'STD001','Yograj','Gadekar','yograjgadekar122@gmail.com','7083601202','sai123'),  
-> (02,'STD002','Swapnil','Kanade','swapnilkanade22@gmail.com','7584856222','swapnil123'),  
-> (03,'STD003','Mayuri','Gaikwad','mayurigaikwad42@gmail.com','9758825657','mayuri123'),  
-> (04,'STD004','Nikhil','Rajgude','nikhilrajgude88@gmail.com','7785896145','nikhil123'),  
-> (05,'STD005','Amit','Patil','patilamit0786@gmail.com','9637784561','amit123'),  
-> (06,'STD006','Ajinath','Sawant','sawantajm@gmail.com','9130404942','ajay123'),  
-> (07,'STD007','Samadhan','Kadam','kadamsamadhan@gmail.com','9172589645','sam123');  
Query OK, 7 rows affected (0.23 sec)  
Records: 7 Duplicates: 0 Warnings: 0
```

```
mysql> desc students;  
+-----+-----+-----+-----+-----+-----+  
| Field | Type | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| id | int | NO | PRI | NULL | |  
| student_id | varchar(20) | YES | UNI | NULL | |  
| first_name | varchar(20) | YES | | NULL | |  
| last_name | varchar(20) | YES | | NULL | |  
| email_id | varchar(50) | YES | | NULL | |  
| mobile_no | varchar(10) | YES | | NULL | |  
| password | varchar(50) | YES | | NULL | |  
+-----+-----+-----+-----+-----+-----+  
7 rows in set (0.00 sec)  
  
mysql> select * from students;  
+-----+-----+-----+-----+-----+-----+-----+  
| id | student_id | first_name | last_name | email_id | mobile_no | password |  
+-----+-----+-----+-----+-----+-----+-----+  
| 1 | STD001 | Yograj | Gadekar | yograjgadekar122@gmail.com | 7083601202 | sai123 |  
| 2 | STD002 | Swapnil | Kanade | swapnilkanade22@gmail.com | 7584856222 | swapnil123 |  
| 3 | STD003 | Mayuri | Gaikwad | mayurigaikwad42@gmail.com | 9758825657 | mayuri123 |  
| 4 | STD004 | Nikhil | Rajgude | nikhilrajgude88@gmail.com | 7785896145 | nikhil123 |  
| 5 | STD005 | Amit | Patil | patilamit0786@gmail.com | 9637784561 | amit123 |  
| 6 | STD006 | Ajinath | Sawant | sawantajm@gmail.com | 9130404942 | ajay123 |  
| 7 | STD007 | Samadhan | Kadam | kadamsamadhan@gmail.com | 9172589645 | sam123 |  
+-----+-----+-----+-----+-----+-----+-----+  
7 rows in set (0.02 sec)
```

```
mysql> create table departments(  

```

```
-> dept_id int(10),
-> dept_name varchar(50),
-> dept_code varchar(20),
-> dept_class_FE_SE_TE_BE varchar(34));
Query OK, 0 rows affected, 1 warning (2.25 sec)
```

```
mysql> insert into departments values
-> (0011, 'IT','IT0011','BE'), (0011, 'IT','IT0012','TE'), (0011, 'IT','IT0013','SE'),
-> (0021, 'Comp','Comp0021','BE'), (0021, 'Comp','Comp0022','TE'), (0021, 'Comp','Comp0023','SE'),
-> (0031, 'Civil','Civil0031','BE'), (0031, 'Civil','Civil0032','TE'), (0031, 'Civil','Civil0033','SE'),
-> (0041, 'E&TC','E&TC0041','BE'), (0041, 'E&TC','E&TC0042','TE'), (0041, 'E&TC','E&TC0043','SE'),
-> (0051, 'Mech','Mech0051','BE'), (0051, 'Mech','Mech0052','TE'), (0051, 'Mech','Mech0053','SE'),
-> (0061, 'Electrical','Ele0061','BE'), (0061, 'Electrical','Ele0062','TE'), (0061, 'Electrical','Ele0063','SE');
Query OK, 18 rows affected (0.31 sec)
Records: 18 Duplicates: 0 Warnings: 0
```

```
mysql> desc departments;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| dept_id | int | YES | | NULL | |
| dept_name | varchar(50) | YES | | NULL | |
| dept_code | varchar(20) | YES | | NULL | |
| dept_class_FE_SE_TE_BE | varchar(34) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> select * from departments;
+-----+-----+-----+-----+
| dept_id | dept_name | dept_code | dept_class_FE_SE_TE_BE |
+-----+-----+-----+-----+
| 11 | IT | IT0011 | BE |
| 11 | IT | IT0012 | TE |
| 11 | IT | IT0013 | SE |
| 21 | Comp | Comp0021 | BE |
| 21 | Comp | Comp0022 | TE |
| 21 | Comp | Comp0023 | SE |
| 31 | Civil | Civil0031 | BE |
| 31 | Civil | Civil0032 | TE |
| 31 | Civil | Civil0033 | SE |
| 41 | E&TC | E&TC0041 | BE |
| 41 | E&TC | E&TC0042 | TE |
| 41 | E&TC | E&TC0043 | SE |
| 51 | Mech | Mech0051 | BE |
| 51 | Mech | Mech0052 | TE |
| 51 | Mech | Mech0053 | SE |
| 61 | Electrical | Ele0061 | BE |
| 61 | Electrical | Ele0062 | TE |
| 61 | Electrical | Ele0063 | SE |
+-----+-----+-----+-----+
18 rows in set (0.00 sec)
```

mysql> alter table admin add primary key (id);
Query OK, 0 rows affected (2.60 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> alter table books add primary key (book_id);
Query OK, 0 rows affected (1.87 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> alter table issued_book add primary key (issue_id);
Query OK, 0 rows affected (2.22 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> alter table students add primary key (id), add unique key student_id (student_id);
Query OK, 0 rows affected (2.89 sec)
Records: 0 Duplicates: 0 Warnings: 0

```
mysql> desc admin;  
+-----+-----+-----+-----+-----+-----+  
| Field      | Type      | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| id         | int       | NO   | PRI | NULL    |       |  
| username   | varchar(20) | YES  |     | NULL    |       |  
| password   | varchar(20) | YES  |     | NULL    |       |  
| firstname  | varchar(20) | YES  |     | NULL    |       |  
| lastname   | varchar(20) | YES  |     | NULL    |       |  
| mobile     | varchar(10) | YES  |     | NULL    |       |  
| email_id   | varchar(50) | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
7 rows in set (0.07 sec)  
  
mysql> desc books;  
+-----+-----+-----+-----+-----+-----+  
| Field      | Type      | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| book_id    | int       | NO   | PRI | NULL    |       |  
| title      | varchar(20) | YES  |     | NULL    |       |  
| author     | varchar(20) | YES  |     | NULL    |       |  
| price      | varchar(10) | YES  |     | NULL    |       |  
| publisher  | varchar(50) | YES  |     | NULL    |       |  
| publish_date | date      | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
6 rows in set (0.00 sec)  
  
mysql> desc issued_book;  
+-----+-----+-----+-----+-----+-----+  
| Field      | Type      | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| issue_id   | int       | NO   | PRI | NULL    |       |  
| book_id    | int       | YES  |     | NULL    |       |  
| student_id | varchar(20) | YES  |     | NULL    |       |  
| issuedate  | date      | YES  |     | NULL    |       |  
| returndate | date      | YES  |     | NULL    |       |  
| fine       | int       | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
6 rows in set (0.00 sec)
```

```
mysql> desc students;
```

Field	Type	Null	Key	Default	Extra
id	int	NO	PRI	NULL	
student_id	varchar(20)	YES	UNI	NULL	
first_name	varchar(20)	YES		NULL	
last_name	varchar(20)	YES		NULL	
email_id	varchar(50)	YES		NULL	
mobile_no	varchar(10)	YES		NULL	
password	varchar(50)	YES		NULL	

```
7 rows in set (0.00 sec)
```

```
mysql> desc departments;
```

Field	Type	Null	Key	Default	Extra
dept_id	int	YES		NULL	
dept_name	varchar(50)	YES		NULL	
dept_code	varchar(20)	YES		NULL	
dept_class_FE_SE_TE_BE	varchar(34)	YES		NULL	

```
4 rows in set (0.00 sec)
```