

1. Creating Database:

```
MariaDB [(none)]> create database labsheet1;  
Query OK, 1 row affected (0.00 sec)
```

2. Listing existing databases:

```
MariaDB [(none)]> show databases;  
+-----+  
| Database |  
+-----+  
| information_schema |  
| lab1 |  
| lab2 |  
| labsheet1 |  
| mysql |  
| performance_schema |  
| phpmyadmin |  
| test |  
| test1 |  
+-----+  
9 rows in set (0.00 sec)
```

3. Selecting specific database:

```
MariaDB [(none)]> use labsheet1;  
Database changed  
MariaDB [labsheet1]>
```

4. Listing existing tables:

```
MariaDB [labsheet1]> show tables;  
+-----+  
| Tables_in_labsheet1 |  
+-----+  
| advisor |  
| classroom |  
| course |  
| department |  
| instructor |  
| prereq |  
| section |  
| student |  
| takes |  
| teaches |  
| time_slot |  
+-----+  
11 rows in set (0.00 sec)
```

5.Details of the table in database:

```
MariaDB [labsheet1]> describe classroom;
```

Field	Type	Null	Key	Default	Extra
building	varchar(15)	NO	PRI	NULL	
room_number	varchar(7)	NO	PRI	NULL	
capacity	decimal(4,0)	YES		NULL	

3 rows in set (0.02 sec)

```
MariaDB [labsheet1]> describe department;
```

Field	Type	Null	Key	Default	Extra
dept_name	varchar(20)	NO	PRI	NULL	
building	varchar(15)	YES		NULL	
budget	decimal(12,2)	YES		NULL	

3 rows in set (0.03 sec)

```
MariaDB [labsheet1]> describe course;
```

Field	Type	Null	Key	Default	Extra
course_id	varchar(8)	NO	PRI	NULL	
title	varchar(50)	YES		NULL	
dept_name	varchar(20)	YES	MUL	NULL	
credits	decimal(2,0)	YES		NULL	

4 rows in set (0.04 sec)

```
MariaDB [labsheet1]> describe instructor;
```

Field	Type	Null	Key	Default	Extra
ID	varchar(5)	NO	PRI	NULL	
name	varchar(20)	NO		NULL	
dept_name	varchar(20)	YES	MUL	NULL	
salary	decimal(8,2)	YES		NULL	

4 rows in set (0.02 sec)

MariaDB [labsheet1]> describe section;

Field	Type	Null	Key	Default	Extra
course_id	varchar(8)	NO	PRI	NULL	
sec_id	varchar(8)	NO	PRI	NULL	
semester	varchar(6)	NO	PRI	NULL	
year	decimal(4,0)	NO	PRI	NULL	
building	varchar(15)	YES	MUL	NULL	
room_number	varchar(7)	YES		NULL	
time_slot_id	varchar(4)	YES		NULL	

7 rows in set (0.01 sec)

MariaDB [labsheet1]> describe teaches;

Field	Type	Null	Key	Default	Extra
ID	varchar(5)	NO	PRI	NULL	
course_id	varchar(8)	NO	PRI	NULL	
sec_id	varchar(8)	NO	PRI	NULL	
semester	varchar(6)	NO	PRI	NULL	
year	decimal(4,0)	NO	PRI	NULL	

5 rows in set (0.01 sec)

MariaDB [labsheet1]> describe student;

Field	Type	Null	Key	Default	Extra
ID	varchar(5)	NO	PRI	NULL	
name	varchar(20)	NO		NULL	
dept_name	varchar(20)	YES	MUL	NULL	
tot_cred	decimal(3,0)	YES		NULL	

4 rows in set (0.08 sec)

MariaDB [labsheet1]> describe takes;

Field	Type	Null	Key	Default	Extra
ID	varchar(5)	NO	PRI	NULL	
course_id	varchar(8)	NO	PRI	NULL	
sec_id	varchar(8)	NO	PRI	NULL	
semester	varchar(6)	NO	PRI	NULL	
year	decimal(4,0)	NO	PRI	NULL	
grade	varchar(2)	YES		NULL	

6 rows in set (0.01 sec)

```
MariaDB [labsheet1]> describe advisor;
```

Field	Type	Null	Key	Default	Extra
s_ID	varchar(5)	NO	PRI	NULL	
i_ID	varchar(5)	YES	MUL	NULL	

```
2 rows in set (0.01 sec)
```

```
MariaDB [labsheet1]> describe time_slot;
```

Field	Type	Null	Key	Default	Extra
time_slot_id	varchar(4)	NO	PRI	NULL	
day	varchar(1)	NO	PRI	NULL	
start_hr	decimal(2,0)	NO	PRI	NULL	
start_min	decimal(2,0)	NO	PRI	NULL	
end_hr	decimal(2,0)	YES		NULL	
end_min	decimal(2,0)	YES		NULL	

```
6 rows in set (0.04 sec)
```

```
MariaDB [labsheet1]> describe prereq;
```

Field	Type	Null	Key	Default	Extra
course_id	varchar(8)	NO	PRI	NULL	
prereq_id	varchar(8)	NO	PRI	NULL	

```
2 rows in set (0.04 sec)
```

6. Populating tables:

I. Table : classroom;

```
MariaDB [labsheet1]> insert into classroom
-> values ('Block09', '402', 60);

MariaDB [labsheet1]> insert into classroom
-> values ('Block08', '301', 45);

MariaDB [labsheet1]> select * from classroom;
```

building	room_number	capacity
Block08	301	45
Block09	402	60

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


II. Table : department;

```
MariaDB [labsheet1]> insert into department
-> values ("ComputerEngineering", "Block09", 34567545678);
Query OK, 1 row affected, 1 warning (0.04 sec)
```

```
MariaDB [labsheet1]> insert into department
-> values ("Mathematics", "Block05", 3457628387);
Query OK, 1 row affected (0.05 sec)
```

```
MariaDB [labsheet1]> select * from department;
```

dept_name	building	budget
ComputerEngineering	Block09	9999999999.99
Mathematics	Block05	3457628387.00

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

III. Table : course;

```
MariaDB [labsheet1]> insert into course
-> values ("MATH207", "Advanced Mathematics", "Mathematics", 4);
Query OK, 1 row affected (0.05 sec)
```

```
MariaDB [labsheet1]> insert into course
-> values ("COMP232", "Data Structure and Algorithms", "ComputerEngineering", 3);
Query OK, 1 row affected (0.05 sec)
```

```
MariaDB [labsheet1]> select * from course;
```

course_id	title	dept_name	credits
COMP232	Data Structure and Algorithms	ComputerEngineering	3
MATH207	Advanced Mathematics	Mathematics	4

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

IV. Table : instructor;

```
MariaDB [labsheet1]> insert into instructor
-> values ("12345", "James Thapa", "Mathematics", 5000000);
Query OK, 1 row affected, 1 warning (0.04 sec)
```

```
MariaDB [labsheet1]> insert into instructor
-> values ("48687", "Sushmita Basnet", "ComputerEngineering", 6000000);
Query OK, 1 row affected, 1 warning (0.08 sec)
```

```
MariaDB [labsheet1]> select * from instructor;
```

ID	name	dept_name	salary
12345	James Thapa	Mathematics	999999.99
48687	Sushmita Basnet	ComputerEngineering	999999.99

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

V. Table : section;

```
MariaDB [labsheet1]> insert into section
-> values ("MATH207", "MS403", "Spring", 2018, "Block09", "402", "12");
Query OK, 1 row affected (0.06 sec)
```

```
MariaDB [labsheet1]> insert into section
-> values ("COMP232", "CS402", "Fall", 2017, "Block08", "301", "1");
Query OK, 1 row affected (0.06 sec)
```

```
MariaDB [labsheet1]> select * from section;
```

course_id	sec_id	semester	year	building	room_number	time_slot_id
COMP232	CS402	Fall	2017	Block08	301	1
MATH207	MS403	Spring	2018	Block09	402	12

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

VI. Table : teaches;

```
MariaDB [labsheet1]> insert into teaches
-> values ("12345", "MATH207", "MS403", "Spring", 2018);
Query OK, 1 row affected (0.14 sec)
```

```
MariaDB [labsheet1]> insert into teaches
-> values ("48687", "COMP232", "CS402", "Fall", 2017);
Query OK, 1 row affected (0.05 sec)
```

```
MariaDB [labsheet1]> select * from teaches;
```

ID	course_id	sec_id	semester	year
12345	MATH207	MS403	Spring	2018
48687	COMP232	CS402	Fall	2017

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

VII. Table : student;

```
MariaDB [labsheet1]> insert into student  
-> values ("34675", "Supreme Thapa", "Mathematics", 48);  
Query OK, 1 row affected (0.04 sec)
```

```
MariaDB [labsheet1]> insert into student  
-> values ("34576", "Sujan Pokhrel", "ComputerEngineering", 50);  
Query OK, 1 row affected (0.06 sec)
```

```
MariaDB [labsheet1]> select * from student;
```

ID	name	dept_name	tot_cred
34576	Sujan Pokhrel	ComputerEngineering	50
34675	Supreme Thapa	Mathematics	48

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

VIII. Table:takes;

```
MariaDB [labsheet1]> insert into takes  
-> values ("34576","COMP232", "CS402", "Fall", 2017, 3);  
Query OK, 1 row affected (0.10 sec)
```

```
MariaDB [labsheet1]> insert into takes  
-> values ("34675", "MATH207", "MS403", "Spring", 2018, 4);  
Query OK, 1 row affected (0.07 sec)
```

```
MariaDB [labsheet1]> select * from takes;
```

ID	course_id	sec_id	semester	year	grade
34576	COMP232	CS402	Fall	2017	3
34675	MATH207	MS403	Spring	2018	4

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

IX. Table : advisor;

```
MariaDB [labsheet1]> insert into advisor  
-> values ("34576", "48687");  
Query OK, 1 row affected (0.06 sec)
```

```
MariaDB [labsheet1]> insert into advisor  
-> values ("34675", "12345");  
Query OK, 1 row affected (0.04 sec)
```



```
MariaDB [labsheet1]> select * from advisor;
+-----+-----+
| s_ID | i_ID |
+-----+-----+
| 34675 | 12345 |
| 34576 | 48687 |
+-----+-----+
2 rows in set (0.00 sec)
```

X. Table : time_slot;

```
MariaDB [labsheet1]> insert into time_slot
-> values ("2345", "4", 12, 30, 02, 30);
Query OK, 1 row affected (0.04 sec)
```

```
MariaDB [labsheet1]> insert into time_slot
-> values ("4354", "5", 09, 15, 11, 15);
Query OK, 1 row affected (0.06 sec)
```

```
MariaDB [labsheet1]> select * from time_slot;
+-----+-----+-----+-----+-----+-----+
| time_slot_id | day | start_hr | start_min | end_hr | end_min |
+-----+-----+-----+-----+-----+-----+
| 2345         | 4   | 12       | 30       | 2      | 30      |
| 4354         | 5   | 9        | 15       | 11     | 15      |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

XI. Table : prereq;

```
MariaDB [labsheet1]> insert into prereq
-> values ("MATH207", "COMP232");
Query OK, 1 row affected (0.03 sec)
```

```
MariaDB [labsheet1]> insert into prereq
-> values ("COMP232", "MATH207");
Query OK, 1 row affected (0.06 sec)
```

```
MariaDB [labsheet1]> select * from prereq;
+-----+-----+
| course_id | prereq_id |
+-----+-----+
| COMP232   | MATH207   |
| MATH207   | COMP232   |
+-----+-----+
2 rows in set (0.00 sec)
```


7. Dropping tables from database:

```
MariaDB [labsheet1]> drop table classroom;  
Query OK, 0 rows affected (0.07 sec)
```

```
MariaDB [labsheet1]> drop table department;  
Query OK, 0 rows affected (0.22 sec)
```

```
MariaDB [labsheet1]> drop table course;  
Query OK, 0 rows affected (0.20 sec)
```

```
MariaDB [labsheet1]> drop table instructor;  
Query OK, 0 rows affected (0.26 sec)
```

```
MariaDB [labsheet1]> drop table section;  
Query OK, 0 rows affected (0.18 sec)
```

```
MariaDB [labsheet1]> drop table teaches;  
Query OK, 0 rows affected (0.21 sec)
```

```
MariaDB [labsheet1]> drop table student;  
Query OK, 0 rows affected (0.16 sec)
```

```
MariaDB [labsheet1]> drop table takes;  
Query OK, 0 rows affected (0.25 sec)
```

```
MariaDB [labsheet1]> drop table advisor;  
Query OK, 0 rows affected (0.18 sec)
```

```
MariaDB [labsheet1]> drop table time_slot;  
Query OK, 0 rows affected (0.24 sec)
```

```
MariaDB [labsheet1]> drop table prereq;  
Query OK, 0 rows affected (0.18 sec)
```

8. Dropping database itself:

```
MariaDB [labsheet1]> drop database labsheet1;  
Query OK, 0 rows affected (0.03 sec)
```