```
>>> SQL Exercise 01
Practical 01: Create following table using SQL statements.
+----+
| Client Table
+----+
| Field Name | Data Type | Attributes |
+----+
| ClientNo | char(6) | Primary Key |
+----+
mysql> create table Client(
   -> ClientNo varchar(6) primary key,
   -> Name varchar(20) not null,
   -> City varchar(50) not null,
   -> Pin int,
   -> Mobile char(10)
   -> );
Query OK, 0 rows affected (0.03 sec)
Practical 02: Insert & display following data in Client table (made in practical 01)
            using SQL statements
| Client Table
+-----
| C00001 | Ivan Bayross | Bombay | 400054 | 3456212343 | C00002 | Vandana Saitwal | Madras | 780001 | 8976532322 |
| C00003 | Pramada Jaguste | Bombay | 400007 | 9090898765 |
| C00004 | Ravi Shreedharan | Delhi | 110020 | 8727121232 |
| C00008 | D Ravichandran | Bombay | 400014 | 2212387896 |
+----+
----- MySQL Command Line
mysql> insert into client values
   -> ('C00001', 'Ivan Bayross', 'Bombay', 400054, '3456212343'),
-> ('C00002', 'Vandana Saitwal', 'Madras', 780001, '8976532322'),
-> ('C00003', 'Pramada Jaguste', 'Bombay', 400007, '9090898765'),
-> ('C00004', 'Ravi Shreedharan', 'Delhi', 110020, '8727121232'),
-> ('C00005', 'Rukmani', 'Kolkata', 340003, '2312376543'),
-> ('C00006', 'Pradeep Singhania', 'Jaipur', 130102, '1222132333'),
-> ('C00007', 'Geoge Paul', 'Kolkata', 340010, '3323211232'),
-> ('C00008', 'D Ravichandran', 'Bombay', 400014, '2212387896')
   ->;
Query OK, 8 rows affected (0.02 sec)
Records: 8 Duplicates: 0 Warnings: 0
mysql> select * from client;
```

	<b>.</b>	<b>4</b>			
ClientNo	Name	City	Pin	Mobile	
+	Ivan Bayross	+   Bombay	1 40005	+ 	·+ ·2
C00001	Vandana Saitwal	Bolliday   Madras	7800032	:	:
C00002	Pramada Jaguste	Bombay	40000	:	!
C00003	Ravi Shreedharan	Delhi	110026	:	:
C00007	Rukmani	Kolkata	:	3   231237654	:
C00006	Pradeep Singhania	•		2   122213233	:
C00007	Geoge Paul	Kolkata	:	332321123	:
C00008	D Ravichandran	Bombay	!	221238789	:
** rows in set (0.00 sec)					
Practical 03: Display the name of those clients whose name contains 'van'(refer table					
	'Client' of Pract	•			
mysql> seled	ct * from client whe			1%';	
+		•	-		-
ClientNo	Name	City   F		Mobile	
•	Ivan Bayross	•	•	+ 2456212242	-
	Vandana Saitwal				
	vanuana Saitwai   1  +-	•	•		_
	et (0.00 sec)		•	'	
 mysql> seled	ct * from client whe	MySQL re not cit	y='Bomba	d Line ay';	
ClientNo	Name	+   City	Pin	Mobile	·+ 
t		+   Madaaa	-+ - <del>7</del> 0000	+	·+
		!	!	L   897653232	<u>.</u>
C00004	Ravi Shreedharan	Delhi		872712123	:
C00005	Rukmani	Kolkata	•		· ·
C00006	Pradeep Singhania			2   122213233	
	Geoge Paul				
		+	+	+	+
o rows in se	et (0.00 sec)				
Dnactical A	. Display different	citios (	nofon to	hla 'Cliant'	of Description (2)
0: 	5: Display different				OT Practical 02)
mysals selec	ct distinct city fro		_ Commati	1 FILE	
+± +	.c arstrict city II'0	, נדדבווני			
city					
++					
Bombay					
Madras					
Delhi					
Kolkata					
: :					
Jaipur					

Practical 06: Create a table 'Club' with proper integrity contraints and insert data as given below:

Club			L	L	L	L
Coach_ID	Coach_Name	Age	Sport	DateOfApp	Pay	Gender
1   2   3   4   5   6   7   8	Karan Ravina Kamal Tarun Sumera Anjani Shamima Soumya	35 35 34 33 36 37 37 30	Karate Karate Squash Basket Ball Swimming Swimming Squash Karate	2019-03-27   2020-01-20   2020-02-19   2020-01-01   2020-01-12   2020-02-24   2020-02-20   2020-02-22	10000   12000   20000   15000   7500   8000   22000   11000	-   M   F   M   M   M   F   F

mysql> create table club(

- -> Coach\_ID int primary key auto\_increment,
- -> Coach\_Name char(50) not null,
- -> Age int not null,
- -> Sport char(20) not null,
- -> DateOfApp date not null,
- -> Pay int not null,
- -> Gender char not null
- -> );

Query OK, 0 rows affected (0.07 sec)

mysql> insert into club values

- -> (1, 'Karan', 35, 'Karate', '2019-03-27', 10000, 'M'),
- -> (2, 'Ravina',35,'Karate','2020-01-20',12000,'F'),
- -> (3,'Kamal',34,'Squash','2020-02-19',20000,'M'),
- -> (3, Kamar, 34, Squash, 2020-02-19, 20000, M'),
  -> (4, 'Tarun', 33, 'Basket Ball', '2020-01-01', 15000, 'M'),
  -> (5, 'Sumera', 36, 'Swimming', '2020-01-12', 7500, 'M'),
  -> (6, 'Anjani', 37, 'Swimming', '2020-02-24', 8000, 'F'),
  -> (7, 'Shamima', 37, 'Squash', '2020-02-20', 22000, 'F'),
  -> (8, 'Soumya', 30, 'Karate', '2020-02-22', 11000, 'F');

Query OK, 8 rows affected (0.01 sec)

Records: 8 Duplicates: 0 Warnings: 0

## mysql> select \* from client;

_		<u> </u>	L	L	L	_
	ClientNo	Name	City	Pin	Mobile	
Ĭ	C00001	Ivan Bayross	Bombay	400054	3456212343	
	C00002	Vandana Saitwal	Madras	780001	8976532322	١
	C00003	Pramada Jaguste	Bombay	400007	9090898765	١
Ì	C00004	Ravi Shreedharan	Delhi	110020	8727121232	ĺ
Ì	C00005	Rukmani	Kolkata	340003	2312376543	ĺ
Ì	C00006	Pradeep Singhania	Jaipur	130102	1222132333	ĺ
Ì	C00007	Geoge Paul	Kolkata	340010	3323211232	ĺ

| C00008 | D Ravichandran | Bombay | 400014 | 2212387896 | 8 rows in set (0.00 sec) Practical 07: Display information about coaches whose name start with K or pay is at least 1500 or both. (refer table 'Club' of Practical 06) ------ MySQL Command Line ----mysql> select \* from club where Coach\_Name like 'K%' or Pay >=1500; +-----| Coach\_ID | Coach\_Name | Age | Sport | DateOfApp | Pay | Gender | +----- 

 1 | Karan
 35 | Karate
 2019-03-27 | 10000 | M

 2 | Ravina
 35 | Karate
 2020-01-20 | 12000 | F

 3 | Kamal
 34 | Squash
 2020-02-19 | 20000 | M

 4 | Tarun
 33 | Basket Ball | 2020-01-01 | 15000 | M

 5 | Sumera
 36 | Swimming | 2020-01-12 | 7500 | M

 6 | Anjani
 37 | Swimming | 2020-02-24 | 8000 | F

 7 | Shamima | 37 | Squash | 2020-02-20 | 22000 | F

 8 | Soumya | 30 | Karate | 2020-02-22 | 11000 | F

 8 rows in set (0.00 sec) Practical 08: Write a query to display report showing Coach\_Name, Pay, Age and Bonus (15% of Pay) for all coaches. (refer table 'Club' of Practical 06) ----- MySQL Command Line ----mysql> select Coach\_Name, Pay, Age, (Pay\*15/100) as Bonus from club; +----+ | Coach\_Name | Pay | Age | Bonus | +----+ | 15000 | 33 | 2250.0000 Tarun | Sumera | 7500 | 36 | 1125.0000 | Anjani | 8000 | 37 | 1200.0000 | Shamima | 22000 | 37 | 3300.0000 | Soumya | 11000 | 30 | 1650.0000 | 8 rows in set (0.00 sec) Practical 09: Display information about all male coaches. (refer table 'Club' of Practical 06) mysql> select \* from Club where Gender='M'; +----+ | Coach\_ID | Coach\_Name | Age | Sport | DateOfApp | Pay | Gender | 

 1 | Karan
 35 | Karate
 2019-03-27 | 10000 | M

 3 | Kamal
 34 | Squash
 2020-02-19 | 20000 | M

 4 | Tarun
 33 | Basket Ball | 2020-01-01 | 15000 | M

 5 | Sumera
 36 | Swimming | 2020-01-12 | 7500 | M

```
4 rows in set (0.00 sec)
Practical 10: Write a command to display the output as. (refer table 'Club' of Practical 6)
| Karan |
Tarun
| Anjani |
| Soumya |
          ----- MySQL Command Line -----
select coach name from club where coach id=1 or coach id=2 or coach id=6 or coach id=8;
+----+
| coach name |
Karan
Ravina
| Anjani
Soumya
+----+
4 rows in set (0.00 sec)
Practical 11: Consider the following table Movie and display all movies which fall in the
          category of Comedy or Action.
l Movie
+-----
130000
                                                    118000
                                                    360000
004
      | Bengali_Movie | Adventure | 2017-01-04 | 72000
                                                    100000
      | Telugu_Movie | Action
                                  | 100000
 005
                                      30500
 006
      mysql> create table movie(
   -> MovieID int primary key,
   -> MovieName varchar(50),
  -> category varchar(20),
  -> ReleaseDate date,
   -> ProductionCost int,
   -> BusinessCost int
   -> );
Query OK, 0 rows affected (0.23 sec)
mysql> insert into Movie values
  -> ('001', 'Hindi_Movie', 'Musical ', '2018-04-23', 124500, 130000),
-> ('002', 'Tamil_Movie', 'Action', '2016-05-17', 112000, 118000),
-> ('003', 'ENglish_Movie', 'Horror', '2017-08-06', 245000, 360000),
  -> ('004', 'Bengali_Movie', 'Adventure', '2017-01-04', 72000 , 100000), -> ('005', 'Telugu_Movie', 'Action', null, 100000, null),
   -> ('006', 'Punjabi_Movie', 'Comedy', null, 30500, null);
```

Query OK, 6 rows affected (0.01 sec)
Records: 6 Duplicates: 0 Warnings: 0
mysql> select \* from movie;

1   Hindi_Movie   Musical   2018-04-23   124500   130000   2   Tamil_Movie   Action   2016-05-17   112000   118000   3   ENglish_Movie   Horror   2017-08-06   245000   360000   4   Bengali_Movie   Adventure   2017-01-04   72000   100000   5   Telugu Movie   Action   NULL   100000   NULL		MovieID	H   MovieName	+   category +	ReleaseDate	ProductionCost	   BusinessCost
6   Punjabi_Movie   Comedy   NULL   30500   NULL	       	5	Tamil_Movie   ENglish_Movie   Bengali_Movie   Telugu_Movie	Action Horror Adventure Action	2016-05-17 2017-08-06 2017-01-04 NULL	112000 245000 72000 100000	118000   360000   100000   NULL

6 rows in set (0.00 sec)

mysql> select \* from movie where category='Action' or category='Comedy';

MovieID	H   MovieName	   category	ReleaseDate	ProductionCost	BusinessCost
j 5	Tamil_Movie	Action	2016-05-17	112000	118000
	Telugu_Movie	Action	NULL	100000	NULL
	Punjabi_Movie	Comedy	NULL	30500	NULL

3 rows in set (0.00 sec)

Practical 12: Consider the table Movie of practical 11 and display all movies which have not been released yet.

-----

•	MovieName		•	ProductionCost	
	Telugu_Movie		NULL	100000	NULL
5	Punjabi_Movie	Action	NULL	30500	NULL

2 rows in set (0.02 sec)

Practical 13: Consider the table Movie of Practical 11 and display net profit of each movie showing its ID, Name and Net Profit.

mysql> select MovieID, MovieName, (BusinessCost-ProductionCost)as NetProfit from movie;

6 rows in set (0.00 sec)

\_\_\_\_\_\_

Practical 14: Consider the following table 'Stock' and display all items which name begins with 's' in descending order of rate

+	L	L		
ItemCode	ItemName	Brand	Quantity	Rate
101	Soap	Lux	100	34
102	Salt	Patanjali	110	20
103	Sugar	Annapurna	200	56
104	Coffe	Nestle	60	140
105	Maggi	Nestle	90	83
106	Cake	Britannis	40	10
107	Biscuit	Britannis	130	5
108	Mustured Oil	Patanjali	75	180
109	Jam	Kissan	20	54
110	Tea	Brook Bond	30	160
+	+	+	<b></b>	+

----- MySQL Command Line -----

```
mysql> create table stock(
-> ItemCode int primary key,
-> ItemName varchar(20),
-> Brand varchar(50),
-> Quantity int,
-> Rate int);
mysql> insert into stock values
-> (101, 'Soap', 'Lux', 100, 34),
-> (102, 'Salt', 'Patanjali',110,20),
-> (103, 'Sugar', 'Annapurna',200,56),
-> (104, 'Coffe', 'Nestle',60,140),
-> (105, 'Maggi', 'Nestle', 90, 83),
-> (106, 'Cake', 'Britannis', 40, 10),
-> (107, 'Biscuit', 'Britannis', 130,5),
-> (108, 'Mustured Oil', 'Patanjali', 75, 180),
-> (109, 'Jam', 'Kissan', 20,54),
-> (110, 'Tea', 'Brook Bond', 30, 160);
Query OK, 10 rows affected (0.02 sec)
```

Records: 10 Duplicates: 0 Warnings: 0

mysql> select \* from stock where ItemName like 's%' order by rate desc;

ItemCode	•	Brand	Quantity	Rate
101	Soap	Annapurna   Lux   Patanjali	100	56     34     20

3 rows in set (0.01 sec)

```
| Sugar | 200 |
            90 |
| Maggi
              20
Jam
+----+
3 rows in set (0.00 sec)
>>> SQL Exercise 02
Practical 01: Study following table 'Doctor' and write SQL command to display female
           doctor names with remainder of Consultation and experience of department
           ENT or Medicine.
------ MySQL Command Line ------
mysql> Create table Doctor(
-> ID int primary key,
-> Name varchar(30),
-> Department varchar(10),
-> Gender char,
-> Experience int,
-> Consultation int);
Query OK, 0 rows affected (0.23 sec)
mysql> insert into doctor values
   -> (201, 'Jaya Reddy', 'ENT', 'F', 12, 700),
   -> (202, 'Sanjay Paney', 'Medicine', 'M', 5, 700),
   -> (203, 'Rakesh Mittal', 'Orthopdic', 'F', 10, 600),
   -> (204, 'Shalini Lakra', 'Skin', 'F', 4, 400),
   -> (205, 'Ajay Singh', 'Cardiology', 'M', 9, 550),
   -> (206, 'Arun Bissa', 'Medicine', 'M', 15, 800),
   -> (207, 'Gurmeet Kheda', 'Orthopedic', 'M', 11, 700),
   -> (208, 'Malini Shankar', 'ENT', 'F', 7,500),
-> (209, 'Jubaida Hassan', 'Medicine', 'F', 6,500),
   -> (210, 'Tia Jena', 'Neurology', 'F', 2, 300);
Query OK, 10 rows affected (0.06 sec)
Records: 10 Duplicates: 0 Warnings: 0
mysql> select Name, Consultation, Experience from doctor where Gender='F' and
     Department in ('ENT','Medicine');
+----+
| Name | Consultation | Experience |
+----+
+----+
3 rows in set (0.00 sec)
Practical 02: Consider table 'Doctor' of practical 1 and write SQL command to display the
           average consultation charges of all doctors having more than 5 year
           experience.
------ MySQL Command Line
mysql> select avg(Consultation)as AverageConsultation from doctor where experience>5;
```

+----+ | AverageConsultation |

```
+----+
    621.4286 |
+----+
1 row in set (0.00 sec)
Practical 03: Consider table 'Doctor' of practical 1 and display minimum consultation
         charge of male doctors.
------ MySQL Command Line ------
mysql> select min(Consultation)as AverageConsultation from doctor where gender='M';
| AverageConsultation |
            550
+-----+
1 row in set (0.01 sec)
Practical 04: Write SQL command to fetch four characters of doctor name. (refer 'Doctor'
         table of Practical 1)
mysql> select substring(Name,1,4) from doctor;
+----+
| substring(Name,1,4) |
+-----+
| Jaya
Sanj
Rake
| Shal
| Ajay
Arun
 Gurm
| Mali
Juba
| Tia
10 rows in set (0.00 sec)
Practical 05: Display output of query: SELECT mid('techtipnow computer education',11,9);
----- MySQL Command Line -----
mysql> SELECT mid('techtipnow computer education',11,9);
+----+
| mid('techtipnow computer education',11,9) |
+----+
computer
1 row in set (0.00 sec)
______
Practical 06: What will be output if you add trim() method in given query of practical5 as
         SELECT trim(mid('techtipnow computer education',11,9));
----- MySQL Command Line ------
mysql> SELECT trim(mid('techtipnow computer education',11,9));
+----+
```

```
| trim(mid('techtipnow computer education',11,9)) |
+----+
computer
1 row in set (0.00 sec)
Practical 07: Study following table 'CLUB' and write SQL command to display all member
     names and fees after giving 12.5% discount.
+----+
| Coach_ID | Coach_Name | Age | Sport | DateOfApp | Pay | Gender |
+----+
      1 | Karan | 35 | Karate | 2019-03-27 | 10000 | M
     +----+
----- MySQL Command Line -----
mysql> create table RotaryClub(
-> MemberCode varchar(10) primary key,
-> MemberName varchar(30),
-> Age int,
-> Fees int,
-> Type varchar(20));
Query OK, 0 rows affected (0.08 sec)
mysql> insert into RotaryClub values
-> ('M1','Anshuman',35,7000,'Monthly'),
-> ('M2','Aradhya',25,8000,'Monthly'),
-> ('M3', 'Sushmita', 42, 24000, 'Yearly'),
-> ('M4','Poorvika',27,12000,'Quartly'),
-> ('M5','Kritika',30,14000,'Yearly'),
-> ('M6', 'Sandesh', 32, 15000, 'Monthly');
Query OK, 6 rows affected (0.02 sec)
Records: 6 Duplicates: 0 Warnings: 0
mysql> select MemberName, Fees, (Fees-((Fees*12.5)/100))as "NetFees(after 12.5% Discount)"
```

from RotaryClub;

+		<b></b>	+	4
į	MemberName	Fees	NetFees(after 12.5% Discount)	
+	Anshuman Aradhya Sushmita Poorvika Kritika Sandesh	7000 8000 24000 12000 14000	6125.00000   7000.00000   21000.00000   10500.00000   12250.00000   13125.00000	†
+		+	+	•

6 rows in set (0.00 sec)

```
Practical 08: Modify query of Practical 7 to display fee after discount with rounding off
         to zero decimal places.
----- MySQL Command Line -----
mysql> select MemberName, Fees, Round((Fees-((Fees*12.5)/100)))as Fees from RotaryClub;
+----+
| MemberName | Fees | Fees |
+----+
| Anshuman | 7000 | 6125
Poorvika | 12000 | 10500
| Kritika | 14000 | 12250
| Sandesh | 15000 | 13125 |
+----+
6 rows in set (0.00 sec)
Practical 09: Display member names in capital letters whose age not in between 25 to 30yrs
         (refer table 'Club' of practical 07)
mysql> select Upper(MemberName) from rOTARYcLUB where age not between 25 and 30;
+----+
| Upper(MemberName) |
ANSHUMAN
SUSHMITA
SANDESH
3 rows in set (0.00 sec)
Practical 10: Write SQL command to display eldest member name with his/her fee from table
         'Club' of Practical 7.
mysql> select MemberName, Fees from rotaryclub order by age desc limit 0,1;
+----+
| MemberName | Fees |
| Sushmita | 24000 |
+----+
1 row in set (0.00 sec)
Practical 11: Display result of SQL Command:
         SELECT INSTR(SUBSTR('techtipnow computers',8,7), 'o');
  mysql> SELECT INSTR(SUBSTR('techtipnow computers',8,7),'o');
| INSTR(SUBSTR('techtipnow computers',8,7),'o') |
+-----+
+-----+
1 row in set (0.00 sec)
```

.....

Practical 12: Consider the following table 'Stock' and display all brands with its total quantities.

Stock			·	   
ItemCode	ItemName	Brand	Quantity	Rate
101	Soap	Lux	100	34
102	Salt	Patanjali	110	20
103	Sugar	Annapurna	200	56
104	Coffe	Nestle	60	140
105	Maggi	Nestle	90	83
106	Cake	Britannis	40	10
107	Biscuit	Britannis	130	5
108	Mustured Oil	Patanjali	75	180
109	Jam	Kissan	20	54
110	Теа	Brook Bond	30	160

----- MySQL Command Line -----

mysql> select brand, quantity from stock;

+	
brand	quantity
Lux   Patanjali     Annapurna     Nestle     Nestle     Britannis     Britannis     Patanjali	100   110   200   60   90   40   130
Kissan     Brook Bond	20   30
+	, 

10 rows in set (0.00 sec)

Practical 13: Write SQL command to display item name with its price of those having brandwise highest price. (Refer table 'Stock' of Practical 12)

mysql> select ItemName from stock order by Rate desc limit 0,1;

1 row in set (0.00 sec)