

My Sql

★ SQL - Structured Query Language

Create DB

create database fruit;

Show DB

show databases;

use DB

use dbname;

four groups

1) DDL → Data Definition Language

create, alter, drop, rename

2) DML → Data Manipulation Language

3) DCL → Data Control Language

4) TCL → Transaction Control Language

→ Create DDL :-

Syntax create table if not exists tablename

(columnname datatype (size),
" " " ")

);

ex Create table if not exists student

(roll no int (4);

name char (30)

or name varchar (30)

if string is small

it is used 30 bytes

it only use

that bytes no. which is in string

Show
Tabledescribe dbname
(desc)

Cardinality → Ktne records in table
Schema → Overall structure of DB

add alter table student add name table
column → add name varchar(30); (size)

changes in it insert into student values ('ab',
column in name 'teekamchange1987@gmail.com',
value 'xyz');

getting select * from dbname
all column

change → alter table sname
size of datatype → modify name.

sex " modify name varchar(50);

Change → alter table name
column → change old new varchar(50) datatype
exist name
sex " now change.name sname varchar(50);

add → alter table student
column at particular
position add age int(3) after sname;
(before not work)

remove alter table name (student)
column → drop column age;

Dual is temporary ~~column~~
@ table (18, 1c)

Date _____
Page No. _____

aggr
default
value
change

alter table student (tablename)
→ modify column default see int (3) default (20).
column

Scalar
Single Row function

✓ # Scalar fun

username @ se phle ki value
from syntax :- Select substr(string, index, length)
emailid [i from left side, -1 from right] '@ ', 1) from student

name
change
of column
select substr(string, index, length) as column name
from student;

select email_id as email from student

2nd Scalar fun

Change small letters to larger
a → A select roll_no, upper(sname) as
from student

Use of substring fun

read from particular OIP Kum
Select substr('mangal kumar', 5, 3)

Consider length

Min
Max

mid & substring is similar

char fun

Date & time function

& Sysdate fun

used to show date & time at the time
of when fun start execution

Select now()

it shows that date&time statement
start execution

current date()

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Single Row Functions / Scalar Functions:

String Functions:

1. char(asscivalue)
 2. concat(str1,str2,...)
 3. lower(str)
 4. upper(str)
 5. substring(str,numeric) or substring(start,numeric,numeric)
 6. substring_index(str,delim,count)
 7. ltrim(str)
 8. rtrim(str)
 9. trim(str)
 10. left(str,len)
 11. right(str,len)
 12. mid(str,pos,len)
 13. length(str)
 14. instr(str1,str2)
-

Numeric Functions:

1. power/pow -> pow(2,3)
2. round(n,m)

Create a database

```
create database dbname;
```

```
create database if not exists dbname;
```

example

```
create database if not exists phone;
```

To view the list of databases:

```
show databases;
```

To use a database

```
use dbname;
```

example

```
use phone;
```

In SQL commands are categorized into four groups:

In SQL commands are categorized into four groups:

1. DDL :-> Data Definition Language (create, alter, drop, truncate, rename)
2. DML :-> Data Manipulation Language (insert, update, delete, select)
3. DCL :-> Data Control Language (grant, revoke)
4. TCL :-> Transaction Control Language (commit, rollback, savepoint, set transaction)

Single Row Functions / Scalar Functions:

String Functions:

```
9 rows in set (0.11 sec)
```

```
mysql> use phone;
```

```
Database changed
```

```
mysql> use phone;
```

```
Database changed
```

```
mysql> create table if not exists student
```

```
    -> (roll_no int(4),  
    -> name varchar(30),  
    -> email_id varchar(60)  
    -> );
```

```
Query OK, 0 rows affected (0.18 sec)
```

```
mysql> _
```



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```
ERROR 1050 (42S01): Table 'student' already exists
mysql> create table if not exists student
    > (roll_no int(4),
    > name varchar(30),
    > email_id varchar(60)
    > );
Query OK, 0 rows affected, 1 warning (0.00 sec)
```

```
mysql> describe student;
```

Field	Type	Null	Key	Default	Extra
roll_no	int(4)	YES		NULL	
name	varchar(30)	YES		NULL	
email_id	varchar(60)	YES		NULL	

3 rows in set (0.17 sec)

```
mysql> alter table student
```

```
    -> add fname varchar(30);
```

```
Query OK, 0 rows affected (0.21 sec)
```

```
Records: 0  Duplicates: 0  Warnings: 0
```

```
mysql> desc student;
```

Field	Type	Null	Key	Default	Extra
roll_no	int(4)	YES		NULL	
name	varchar(30)	YES		NULL	
email id	varchar(60)	YES		NULL	

REC

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```
mysql> insert into student values(30,'abc','teekamchand1987@gmail.com','xyz');
Query OK, 1 row affected (0.05 sec)

mysql> insert into student values(31,'def','tinkujyanyani1987@gmail.com','vwy');
Query OK, 1 row affected (0.04 sec)

mysql> select * from student;
+-----+-----+-----+-----+
| roll_no | name | email_id | fname |
+-----+-----+-----+-----+
|    30   | abc  | teekamchand1987@gmail.com | xyz   |
|    31   | def  | tinkujyanyani1987@gmail.com | vwy   |
+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> select roll_no,name from student;
+-----+-----+
| roll_no | name |
+-----+-----+
|    30   | abc  |
|    31   | def  |
+-----+-----+
2 rows in set (0.00 sec)

mysql> select name,email_id,roll_no from student;
+-----+-----+-----+
| name | email_id | roll_no |
+-----+-----+-----+
| abc  | teekamchand1987@gmail.com |      30 |
+-----+-----+-----+
```

Select C:\Program Files (x86)\MySQL\MySQL Server 5.7\bin\mysql

4 rows in set (0.04 sec)

mysql> show tables;

+-----+
| Tables_in_phone |

+-----+
| student |

+-----+
1 row in set (0.01 sec)

mysql> alter table student

-> modify name varchar(50);

Query OK, 2 rows affected (0.16 sec)

Records: 2 Duplicates: 0 Warnings: 0

mysql> desc student;

Field	Type	Null	Key	Default	Extra
roll_no	int(4)	YES		NULL	
name	varchar(50)	YES		NULL	
email_id	varchar(60)	YES		NULL	
fname	varchar(30)	YES		NULL	

4 rows in set (0.05 sec)

mysql> alter table student

-> change name sname varchar(50);

Query OK, 2 rows affected (0.17 sec)



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```
fname | varchar(30) | YES | | NULL |
```

4 rows in set (0.05 sec)

```
mysql> select * from student;
```

roll_no	sname	email_id	fname
30	abc	teekamchand1987@gmail.com	xyz
31	def	tinkujyanyani1987@gmail.com	vwy

2 rows in set (0.00 sec)

```
mysql> alter table student
```

```
-> add age int(3) after sname;
```

Query OK, 2 rows affected (0.22 sec)

Records: 2 Duplicates: 0 Warnings: 0

```
mysql> desc student;
```

Field	Type	Null	Key	Default	Extra
roll_no	int(4)	YES		NULL	
sname	varchar(50)	YES		NULL	
age	int(3)	YES		NULL	
email_id	varchar(60)	YES		NULL	
fname	varchar(30)	YES		NULL	

5 rows in set (0.02 sec)

```
mysql> select * from student;
+-----+-----+-----+
| roll_no | sname | age   | email_id
+-----+-----+-----+
| 30     | abc   | NULL  | teekamchand1987@gmail.com |
| 31     | def   | NULL  | tinkujyanyani1987@gmail.com |
+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> alter table student
-> drop column age;
Query OK, 2 rows affected (0.17 sec)
Records: 2  Duplicates: 0  Warnings: 0

mysql> desc student;
+-----+-----+-----+-----+-----+-----+
| Field    | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| roll_no  | int(4)    | YES  |     | NULL    |       |
| sname    | varchar(50) | YES  |     | NULL    |       |
| email_id | varchar(60) | YES  |     | NULL    |       |
| fname    | varchar(30) | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.04 sec)
```

```
query OK, 2 rows affected (0.17 sec)
Records: 2  Duplicates: 0  Warnings: 0

mysql> alter table student
    -> add column age int(3) default 20;
Query OK, 2 rows affected (0.13 sec)
Records: 2  Duplicates: 0  Warnings: 0

mysql> select * from student;
+-----+-----+-----+-----+-----+
| roll_no | sname | email_id          | fname | age  |
+-----+-----+-----+-----+-----+
| 30     | abc   | teekamchand1987@gmail.com | xyz   | 20   |
| 31     | def   | tinkujyanyani1987@gmail.com | vwy   | 20   |
+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> desc student;
+-----+-----+-----+-----+-----+
| Field  | Type   | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| roll_no | int(4) | YES  |      | NULL    |        |
| sname   | varchar(50)| YES |      | NULL    |        |
| email_id | varchar(60) | YES |      | NULL    |        |
| fname   | varchar(30) | YES |      | NULL    |        |
| age     | int(3)  | YES |      | 20      |        |
+-----+-----+-----+-----+-----+
5 rows in set (0.05 sec)

mysql>
```

```
| tinkujyanyani1987@gmail.com |
+-----+
2 rows in set (0.00 sec)

mysql> select substring_index(email_id,'@',1) from student;
+-----+
| substring_index(email_id,'@',1) |
+-----+
| teekamchand1987
| tinkujyanyani1987
+-----+
2 rows in set (0.03 sec)
```

```
+-----+
| |
+-----+
1 row in set, 2 warnings (0.02 sec)

mysql> select substring_index('rajasthan@gov.in','@',1) from dual;
+-----+
| substring_index('rajasthan@gov.in','@',1) |
+-----+
| rajasthan |
+-----+
1 row in set (0.00 sec)

mysql> select substring_index('teekam,tinku,kuki','','1') from dual;
+-----+
| substring_index('teekam,tinku,kuki','','1') |
+-----+
| teekam |
+-----+
1 row in set (0.00 sec)

mysql> select substring_index('teekam,tinku,kuki','','2') from dual;
+-----+
| substring_index('teekam,tinku,kuki','','2') |
+-----+
| teekam,tinku |
+-----+
1 row in set (0.00 sec)

mysql> select substring_index('teekam,tinku,kuki','','2') from dual;
```

```
ROW IN SEC (0.00 SEC)

mysql> select substring_index(email_id,'@',1) from student;
+-----+
| substring_index(email_id,'@',1) |
+-----+
| teekamchand1987                   |
| tinkujyanyani1987                  |
+-----+
2 rows in set (0.00 sec)

mysql> select email_id,substring_index(email_id,'@',1) from student;
+-----+-----+
| email_id          | substring_index(email_id,'@',1) |
+-----+-----+
| teekamchand1987@gmail.com | teekamchand1987 |
| tinkujyanyani1987@gmail.com | tinkujyanyani1987 |
+-----+-----+
2 rows in set (0.00 sec)

mysql>
```

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```
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+-----+
| email_id | substring_index(email_id,'@',1) |
+-----+
| teekamchand1987@gmail.com | teekamchand1987 |
| tinkujyanyani1987@gmail.com | tinkujyanyani1987 |
+-----+
2 rows in set (0.00 sec)

mysql> select substring_index('teekamchand1987@gmail.com','@',-1) from student;
+-----+
| substring_index('teekamchand1987@gmail.com','@',-1) |
+-----+
| gmail.com |
| gmail.com |
+-----+
2 rows in set (0.03 sec)

mysql> select substring_index('teekamchand1987@gmail.com','@',-1) as domain_name from student;
+-----+
| domain_name |
+-----+
| gmail.com |
| gmail.com |
+-----+
2 rows in set (0.00 sec)

mysql> select substring_index('teekamchand1987@gmail.com','@',-1) as "domain name" from student;
+-----+
| domain name |
+-----+
```



```
mysql> select roll_no, sname from student;
+-----+-----+
| roll_no | sname |
+-----+-----+
| 30     | ABC   |
| 31     | DEF   |
+-----+-----+
2 rows in set (0.00 sec)

mysql> select roll_no, upper(sname) as sname from student;
+-----+-----+
| roll_no | sname |
+-----+-----+
| 30     | ABC   |
| 31     | DEF   |
+-----+-----+
2 rows in set (0.00 sec)

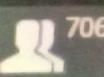
mysql>
```



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```
mysql> select substring('teekamchand',2);
+-----+
| substring('teekamchand',2) |
+-----+
| eekamchand |
+-----+
1 row in set (0.00 sec)

mysql> select substring('teekamchand',3);
+-----+
| substring('teekamchand',3) |
+-----+
| ekamchand |
+-----+
1 row in set (0.00 sec)

mysql> select substring('teekamchand',1,6);
+-----+
| substring('teekamchand',1,6) |
+-----+
| teekam |
+-----+
1 row in set (0.00 sec)
```

```
+-----+  
1 row in set (0.00 sec)  
  
mysql> select substring('raj kumar',5,3);  
+-----+  
| substring('raj kumar',5,3) |  
+-----+  
| kum |  
+-----+  
1 row in set (0.00 sec)  
  
mysql> select left('teekamchand',6);  
+-----+  
| left('teekamchand',6) |  
+-----+  
| teekam |  
+-----+  
1 row in set (0.00 sec)
```

```
1 row in set (0.00 sec)

mysql> select left('teekamchand',4);
+-----+
| left('teekamchand',4) |
+-----+
| teek |
+-----+
1 row in set (0.00 sec)

mysql> select email_id, left(email_id,6) from student;
+-----+-----+
| email_id | left(email_id,6) |
+-----+-----+
| teekamchand1987@gmail.com | teekam |
| tinkujyanyani1987@gmail.com | tinkuj |
+-----+-----+
2 rows in set (0.00 sec)

mysql> select email_id, left(email_id,6),right(email_id,6) from student;
+-----+-----+-----+
| email_id | left(email_id,6) | right(email_id,6) |
+-----+-----+-----+
| teekamchand1987@gmail.com | teekam | il.com |
| tinkujyanyani1987@gmail.com | tinkuj | il.com |
+-----+-----+-----+
2 rows in set (0.00 sec)

mysql>
```

```
+-----+
1 row in set (0.00 sec)

mysql> select concat('teekam',' ','chand',' ','jyanyani') from dual
+-----+
| concat('teekam',' ','chand',' ','jyanyani') |
+-----+
| teekam chand jyanyani |
+-----+
1 row in set (0.00 sec)

mysql> select * from student;
+-----+-----+-----+-----+
| roll_no | sname | email_id           | fname | age  |
+-----+-----+-----+-----+
|     30  | abc   | teekamchand1987@gmail.com | xyz  | 23  |
|     31  | def   | tinkujyanyani1987@gmail.com | vwy  | 23  |
+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> select concat(sname,' ',substring_index(email_id,'@',1)) as name
+-----+
| name          |
+-----+
| abc teekamchand1987 |
| def tinkujyanyani1987 |
+-----+
2 rows in set (0.00 sec)
```

```
mysql> select substring_index('abc@gmail.com', '@', 1);
+-----+
| abc |
+-----+
1 row in set (0.00 sec)

mysql> select upper(substring_index('abc@gmail.com', '@', 1));
+-----+
| ABC |
+-----+
1 row in set (0.00 sec)

mysql> select concat(sname, ' ', substring_index(email_id, '@', 1)) as name from
+-----+
| name      |
+-----+
| abc teekamchand1987 |
| def tinkujyanyani1987 |
+-----+
2 rows in set (0.00 sec)

mysql>
```



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Ann
sir wif

```
def tinkerjyanyani1987
+-----+
2 rows in set (0.00 sec)

mysql> select substring_index('ab@c@gmail.com','@',1);
+-----+
| substring_index('ab@c@gmail.com','@',1) |
+-----+
| ab
+-----+
1 row in set (0.00 sec)

mysql> select substring_index('ab@c@gmail.com','@',2);
```

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

```
mysql> select sname,length(email_id) from student;
+-----+-----+
| sname | length(email_id) |
+-----+-----+
| abc   |          25 |
| def   |          27 |
+-----+
2 rows in set (0.00 sec)
```

```
mysql>
```



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C:\Program Files (x86)\MySQL\MySQL Server 5.1\bin>

```
| abc | 15 |
| def | 17 |
+-----+
2 rows in set (0.00 sec)
```

```
mysql> select ltrim(' teekam chand      ') as name from dual
+-----+
| name      |
+-----+
| teekam chand |
+-----+
1 row in set (0.00 sec)
```

```
mysql> select rtrim(' teekam chand      ') as name from dual
+-----+
| name      |
+-----+
| teekam chand |
+-----+
1 row in set (0.02 sec)
```

```
mysql> select trim(' teekam chand      ') as name from dual;
+-----+
| name      |
+-----+
| teekam chand |
+-----+
1 row in set (0.01 sec)
```

```
mysql>
```

```
+-----+  
| teekam chand |  
+-----+  
1 row in set (0.00 sec)
```

```
mysql> select instr('teekam chand', 'teek');  
+-----+  
| instr('teekam chand', 'teek') |  
+-----+  
| 1 |  
+-----+  
1 row in set (0.02 sec)
```

```
mysql> select instr('teekam chand', 'chan');  
+-----+  
| instr('teekam chand', 'chan') |  
+-----+  
| 8 |  
+-----+  
1 row in set (0.00 sec)
```

```
mysql> select instr('teekam chand', 'cthan');  
+-----+  
| instr('teekam chand', 'cthan') |  
+-----+  
| 0 |  
+-----+  
1 row in set (0.00 sec)
```

```
mysql>
```



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```
2 rows in set (0.00 sec)

mysql> select sname,email_id from student;
+-----+-----+
| sname | email_id          |
+-----+-----+
| abc   | teekamchand1987@gmail.com |
| def   | tinkujyanyani1987@gmail.com |
+-----+
2 rows in set (0.00 sec)

mysql> select sname,instr(email_id,'teekamchand1987@gmail.com') from student;
+-----+-----+
| sname | instr(email_id,'teekamchand1987@gmail.com') |
+-----+-----+
| abc   | 1           |
| def   | 0           |
+-----+
2 rows in set (0.00 sec)

mysql>
```

```
1 row in set (0.00 sec)

mysql> select mid('teekam chand',1,6);
+-----+
| mid('teekam chand',1,6) |
+-----+
| teekam |
+-----+
1 row in set (0.00 sec)
```

```
1 row in set (0.00 sec)

mysql> select mid('teekam chand',1,6);
+-----+
| mid('teekam chand',1,6) |
+-----+
| teekam |
+-----+
1 row in set (0.00 sec)

mysql> select char(65,66,97) from dual;
+-----+
| char(65,66,97) |
+-----+
| ABa |
+-----+
1 row in set (0.02 sec)
```

```
+-----+  
| char(65,66,97) |  
+-----+  
| ABa |  
+-----+  
1 row in set (0.02 sec)
```

```
mysql> select sysdate();  
+-----+  
| sysdate() |  
+-----+  
| 2021-07-08 14:38:07 |  
+-----+  
1 row in set (0.03 sec)
```

```
mysql> select now();  
+-----+  
| now() |  
+-----+  
| 2021-07-08 14:38:15 |  
+-----+  
1 row in set (0.00 sec)
```



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1 row in set (0.00 sec)

```
mysql> select current_date();
+-----+
| current_date() |
+-----+
| 2021-07-08 |
+-----+
1 row in set (0.02 sec)
```

```
mysql> select curdate();
```

ERROR 1305 (42000): FUNCTION phone.currdat

```
mysql> select curdate();
```

```
+-----+
| curdate() |
+-----+
| 2021-07-08 |
+-----+
1 row in set (0.01 sec)
```

```
mysql> select date(sysdate());
```

```
+-----+
| date(sysdate()) |
+-----+
| 2021-07-08 |
+-----+
1 row in set (0.00 sec)
```

```
mysql>
```



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```
mysql> select date('2020-06-01 10:35:03');
+-----+
| date('2020-06-01 10:35:03') |
+-----+
| 2020-06-01 |
+-----+
1 row in set (0.00 sec)

mysql> select year(sysdate());
+-----+
| year(sysdate()) |
+-----+
| 2021 |
+-----+
1 row in set (0.00 sec)
```

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```
mysql> select year(sysdate())-year(date('1988-05-16')) ;
+-----+
| 33   |
+-----+
1 row in set (0.02 sec)

mysql> select month(sysdate()) ;
+-----+
| 7    |
+-----+
1 row in set (0.01 sec)

mysql> select dayofyear(sysdate()) ;
+-----+
| 189  |
+-----+
1 row in set (0.00 sec)

mysql> select dayofyear(date(sysdate())) ;
+-----+
| 189  |
+-----+
1 row in set (0.00 sec)
```

```
+-----+  
| 189 |  
+-----+  
1 row in set (0.00 sec)  
  
mysql> select dayofyear(date(sysdate()));  
+-----+  
| dayofyear(date(sysdate())) |  
+-----+  
| 189 |  
+-----+  
1 row in set (0.00 sec)  
  
mysql> select dayofyear(date('2021-07-07'));  
+-----+  
| dayofyear(date('2021-07-07')) |  
+-----+  
| 188 |  
+-----+  
1 row in set (0.00 sec)  
  
mysql> select dayofmonth(date('2021-07-07'));  
+-----+  
| dayofmonth(date('2021-07-07')) |  
+-----+  
| 7 |  
+-----+  
1 row in set (0.00 sec)
```