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Div :A

Batch :AS4

Assignment No 1

Aim : Study of open source relational database management system:MySQL

- **Create database or use existing database**

```
mysql> use student153;
```

```
Database      changed
```

```
mysql> show tables;
```

```
Empty set (0.05 sec)
```

- **show structure of database**

```
mysql> desc emp;
```

Field	Type	Null	Key	Default	Extra
eno	int(11)	YES		NULL	
ename	varchar(25)	YES		NULL	
eaddress	varchar(25)	YES		NULL	
esal	decimal(6,2)	YES		NULL	
deptno	int(11)	YES		NULL	

```
5 rows in set (0.02 sec)
```

- **Insert value in employee table**

```
mysql> insert into emp values(101,'Sachin','Mumbai',5647.23,2);
```

Query OK, 1 row affected (0.06 sec)

```
mysql> insert into emp values(102,'Vinod','Banglore',3457.23,5);
```

Query OK, 1 row affected (0.09 sec)

```
mysql> insert into emp values(104,'John','Pune',7623.65,3);
```

Query OK, 1 row affected (0.09 sec)

```
mysql> insert into emp values(103,'Julie','Nashik',5323.65,2);
```

Query OK, 1 row affected (0.08 sec)

```
mysql> insert into emp values(106,'Apurva','Indore',6723.64,4);
```

Query OK, 1 row affected (0.06 sec)

- **show table of employee record**

```
mysql> select * from emp;
```

```
+-----+-----+-----+-----+-----+
| eno  | ename | eaddress | esal  | deptno |
+-----+-----+-----+-----+-----+
```

```
| 101 | Sachin | Mumbai | 5647.23 | 2 | | | | | | |
| 102 | Vinod | Bangalore | 3457.23 | 5 |
| 104 | John | Pune | 7623.65 | 3 |
| 103 | Julie | Nashik | 5323.65 | 2 | | 106 | Apurva | Indore | 6723.64 | 4 |

+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

DDL COMMANDS

1) Alter table: add

used to add new column name in table

```
mysql> alter table emp add dname
```

```
int; Query OK, 5 rows affected (0.45
```

```
sec) Records: 5 Duplicates: 0
```

```
Warnings: 0
```

```
mysql> desc emp;
```

```
+-----+-----+-----+-----+-----+
| Field | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| eno    | int(11)   | YES  |     | NULL    |       |
| ename  | varchar(25) | YES  |     | NULL    |       |
| eaddress | varchar(25) | YES  |     | NULL    |       |
| esal   | decimal(6,2) | YES  |     | NULL    |       |

| deptno | int(11) | | NULL | |
| Y
| E
| S
|
```

```
| dname | int(11) | NULL |
,
|
:
```

1)Alter table: modify

used to modify size of column

```
mysql> alter table emp modify esal decimal(7,2);
```

Query OK, 5 rows affected (0.60 sec)

Records: 5 Duplicates: 0 Warnings: 0

```
mysql> desc emp;
```

Field	Type	Null	Key	Default	Extra
eno	int(11)	YES		NULL	
ename	varchar(25)	YES		NULL	
eaddress	varchar(25)	YES		NULL	
esal	decimal(7,2)	YES		NULL	
deptno	int(11)	YES		NULL	
dname	int(11)	YES		NULL	

6 rows in set (0.11 sec)

before salary column size is(6,2)

after modify it is (7,2)

2)Alter table:drop

used to delete the column in table

```
mysql> alter table emp drop dname;
```

Query OK, 5 rows affected (0.69 sec)

Records: 5 Duplicates: 0 Warnings: 0

```
mysql> desc emp;
```

Field	Type	Null	Key	Default	Extra
eno	int(11)	YES		NULL	
ename	varchar(25)	YES		NULL	
eaddress	varchar(25)	YES		NULL	
esal	decimal(7,2)	YES		NULL	
deptno	int(11)	YES		NULL	

5 rows in set (0.08 sec)

after drop command dname column deleted.

4)truncate

used to delete all the rows/record from table

```
mysql> select * from emp1;
```

eno	ename	deptno
102	john	23
104	vinod	2
103	sachin	5
106	vijay	15

4 rows in set (0.00 sec)

mysql> truncate table emp1;

Query OK, 0 rows affected (0.08 sec)

mysql> select * from emp1;

Empty set (0.00 sec)

mysql> desc emp1;

Field	Type	Null	Key	Default	Extra
eno	int(11)	YES		NULL	
ename	varchar(25)	YES		NULL	
deptno	int(11)	YES		NULL	

3 rows in set (0.05 sec)

Here all records are get deleted but structure remains same

5)drop command

used to delete all records as well as structure

mysql> drop table emp1;

Query OK, 0 rows affected (0.37 sec)

mysql> select * from emp1;

```
ERROR 1146 (42S02): Table 'student153.emp1' doesn't exist

mysql> desc emp1;

ERROR 1146 (42S02): Table 'student153.emp1' doesn't exist

mysql>
```

- **View**

```
mysql> select * from emp;
```

```
+-----+-----+-----+-----+-----+
| eno | ename | eaddress | esal  | deptno |
+-----+-----+-----+-----+-----+
| 101 | Sachin | Mumbai  | 5647.23 | 2 |
| 102 | Vinod  | Banglore | 3457.23 | 5 |
| 104 | John   | Pune     | 7623.65 | 3 |
| 103 | Julie  | Nashik   | 5323.65 | 2 |
| 106 | Apurva | Indore   | 6723.64 | 4 |
+-----+-----+-----+-----+-----+

5 rows in set (0.12 sec)
```

```
mysql> create view emp_view as select eno,ename,esal from emp;

Query OK, 0 rows affected (0.09 sec)
```

```
mysql> select * from emp_view;
```

```
+-----+-----+-----+
| eno | ename | esal  |
+-----+-----+-----+
| 101 | Sachin | 5647.23 |
| 102 | Vinod  | 3457.23 |
```


	104		John		7623.65	
	103		Julie		5323.65	
	106		Apurva		6723.64	

+-----+-----+-----+

5 rows in set (0.03 sec)

Here view is created for eno,ename,esal

1.update in view

when we update virtual table then it will also update in original table

mysql> update emp_view set ename='ramesh' where eno=101;

Query OK, 1 row affected (0.08 sec)

Rows matched: 1 Changed: 1 Warnings: 0

mysql> select * from emp_view;

+-----+-----+-----+

	eno		ename		esal	
--	-----	--	-------	--	------	--

+-----+-----+-----+

	101		ramesh		5647.23	
--	-----	--	---------------	--	---------	--

	102		Vinod		3457.23	
--	-----	--	-------	--	---------	--

	104		John		7623.65	
--	-----	--	------	--	---------	--

	103		Julie		5323.65	
--	-----	--	-------	--	---------	--

	106		Apurva		6723.64	
--	-----	--	--------	--	---------	--

+-----+-----+-----+

5 rows in set (0.00 sec)

```
mysql> select * from emp;
```

```
+-----+-----+-----+-----+
| eno | ename | eaddress | esal | deptno |
+-----+-----+-----+-----+
| 101 | ramesh | Mumbai | 5647.23 | 2 |
| 102 | Vinod | Bangalore | 3457.23 | 5 |
| 104 | John | Pune | 7623.65 | 3 |
| 103 | Julie | Nashik | 5323.65 | 2 |
| 106 | Apurva | Indore | 6723.64 | 4 |
+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

2.Delete from view

```
mysql> delete from emp_view where eno=101;
```

Query OK, 1 row affected (0.40 sec)

```
mysql> select * from emp_view;
```

```
+-----+-----+-----+
| eno | ename | esal |
+-----+-----+-----+
| 102 | Vinod | 3457.23 |
| 104 | John | 7623.65 |
| 103 | Julie | 5323.65 |
| 106 | Apurva | 6723.64 |
+-----+-----+-----+
4 rows in set (0.00 sec)
```

```
mysql> select * from emp;
```

```
+-----+-----+-----+-----+-----+
| eno | ename | eaddress | esal | deptno |
+-----+-----+-----+-----+-----+
| 102 | Vinod | Bangalore | 3457.23 | 5 |
| 104 | John | Pune | 7623.65 | 3 |
| 103 | Julie | Nashik | 5323.65 | 2 |
| 106 | Apurva | Indore | 6723.64 | 4 |
+-----+-----+-----+-----+-----+
```

4 rows in set (0.00 sec)

1.Insert in view

```
mysql> insert into emp_view values(107,'ajay',5643.77);
```

Query OK, 1 row affected (0.06 sec)

```
mysql> select * from emp_view;
```

```
+-----+-----+-----+
| eno | ename | esal |
+-----+-----+-----+
| 102 | Vinod | 3457.23 |
| 104 | John | 7623.65 |
| 103 | Julie | 5323.65 |
| 106 | Apurva | 6723.64 |
| 107 | ajay | 5643.77 |
+-----+-----+-----+
```

4 rows in set (0.00 sec)

```
mysql> select * from emp;
```

+-----+-----+-----+-----+-----+				
eno	ename	eaddress	esal	deptno
+-----+-----+-----+-----+-----+				
102	Vinod	Banglore	3457.23	5
104	John	Pune	7623.65	3
103	Julie	Nashik	5323.65	2
106	Apurva	Indore	6723.64	4
107	ajay	NULL	5643.77	NULL
+-----+-----+-----+-----+-----+				

5 rows in set (0.00 sec)

1.update in view

```
mysql> update emp_view set ename='abc' where eno=102;
```

Query OK, 1 row affected (0.06 sec)

Rows matched: 1 Changed: 1 Warnings: 0

```
mysql> select * from emp_view;
```

+-----+-----+-----+		
eno	ename	esal

```

+-----+-----+-----+
| 102 | abc   | 3457.23 |
| 104 | John  | 7623.65 |
| 103 | Julie | 5323.65 |
| 106 | Apurva | 6723.64 |
| 107 | ajay  | 5643.77 |
+-----+-----+-----+
5 rows in set (0.00 sec)

```

6.drop view

```
mysql> drop view emp_view;
```

Query OK, 0 rows affected (0.00 sec)

```
mysql> select * from emp_view;
```

ERROR 1146 (42S02): Table 'student142.emp_view' doesn't exist

• INDEX

1.Create index

```
mysql> create unique index emp_index on emp(eno);
```

Query OK, 0 rows affected (0.27 sec)

Records: 0 Duplicates: 0 Warnings: 0

```
mysql> show index from emp;
```

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
--+

| Table | Non_unique | Key_name | Seq_in_index | Column_name | Collation | Cardinality | Sub_part | Packed | Null |
Index_type | Comment | Index_comment |

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
--+

| emp | 0 | emp_index | 1 | eno | A | 5 | NULL | NULL | YES | BTREE | | |
| emp | 1 | eid | 1 | eno | A | 5 | NULL | NULL | YES | BTREE | | |
| emp | 1 | eno | 1 | eno | A | 5 | NULL | NULL | YES | BTREE | | |

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
--+

3 rows in set (0.05 sec)

```

2.Drop index

```

mysql> drop index emp_index on emp;

Query OK, 0 rows affected (0.16 sec)

Records: 0 Duplicates: 0 Warnings: 0

```

```

mysql> show index from emp;

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
--+

| Table | Non_unique | Key_name | Seq_in_index | Column_name | Collation | Cardinality | Sub_part | Packed | Null |
Index_type | Comment | Index_comment |

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
--+

| emp | 1 | eid | 1 | eno | A | 5 | NULL | NULL | YES | BTREE | | |
| emp | 1 | eno | 1 | eno | A | 5 | NULL | NULL | YES | BTREE | | |

```

