

AIM:

To understand and implement the concepts of views and indexes in SQL.

CREATING A VIEW:

```
SQL> create table empl01(id number(4) primary key, name varchar(18) , age number(2) , area
varchar(15) , workhours number(2));
```

Table created.

```
SQL> insert into empl01 values(68 , 'jayashangav' , 18 , 'perundurai' , 19);
```

1 row created.

```
SQL> insert into empl01 values(73 , 'jegan' , 19 , 'salem' , 20);
```

1 row created.

```
SQL> insert into empl01 values(74 , 'sanjay' , 20 , 'erode' , 21);
```

1 row created.

```
SQL> insert into empl01 values(80 , 'karthik' , 21 , 'vijayapuri' , 22);
```

1 row created.

```
SQL> insert into empl01 values(82 , 'kavin' , 22 , 'thingalur' , 23);
```

1 row created.

```
SQL> select * from empl01;
```

ID	NAME	AGE	AREA	WORKHOURS
68	jayashangav	18	perundurai	19
73	jegan	19	salem	20
74	sanjay	20	erode	21
80	karthik	21	vijayapuri	22

82 kavin 22 thingalur 23

```
SQL>create view emp01 as select id , name , area from empl01;
```

View created.

```
SQL> select * from emp01;
```

ID	NAME	AREA
68	jayashangav	perundurai
73	jegan	salem
74	sanjay	erode
80	karthik	vijayapuri
82	kavin	thingalur

TO CREATE A VIEW COMBO USING BOTH THE TABLES EMP01 AND EMP02:

```
SQL> create table empl02(id number(4) primary key, name varchar(18) , age number(2) , area  
varchar(15) , workhours number(2));
```

Table created.

```
SQL> insert into empl02 values(68 , 'jayashangav' , 18 , 'perundurai' , 19);
```

1 row created.

```
SQL> insert into empl02 values(75 , 'kabesh' , 19 , 'jaipur' , 20);
```

1 row created.

```
SQL> insert into empl02 values(74 , 'sanjay' , 20 , 'erode' , 21);
```

1 row created.

```
SQL> insert into empl02 values(81 , 'kartikayan' , 21 , 'salem' , 22);
```

1 row created.

```
SQL> create view combo as select empl01.id , empl01.name , empl01.area from empl01 , empl02
where empl01.id = empl02.id;
```

```
SQL> select * from combo;
```

ID	NAME	AREA
68	jayashangav	perundurai
74	sanjay	erode

TO PERFORM MANIPULATIONS ON THIS VIEW :

```
SQL> insert into combo
```

```
2 values(80,'karthik',28,'Erode' , 22);
```

```
insert into combo
```

```
*
```

```
ERROR at line 1:
```

```
ORA-01779: cannot modify a column which maps to a non key-preserved
```

```
Table
```

This shows that when a view is created from two different tables no manipulations can be performed using that view and the above error is displayed.

INDEX :

SYNTAX:

Creating an Index: create index indexname on table name
(column name)

Single column Index :

A Single column index is an index on one table

```
SQL> create index empl68 on empl01(name);
Index created.
```

```
SQL> SELECT * FROM empl01 WHERE name = 'jayashangav';
```

ID	NAME	AGE	AREA	WORKHOURS
68	jayashangav	18	perundurai	19

Composite index :

A composite index is an index on two or more columns of a table.

```
SQL> create index empl68 on empl01(name,age);
Index created.
```

```
SQL> SELECT * FROM empl01 WHERE name = 'jegan' AND age = '19';
```

ID	NAME	AGE	AREA	WORKHOURS
73	jegan	19	salem	20

Bitmap Index :

Bitmap Indexing is a special type of database indexing that uses bitmaps

Dropping an Index:

```
DROP INDEX index_name
```

```
SQL> drop index empl68;
```

Index dropped.

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RESULT

Thus Two tables are created . Views , Index for this tables are created successfully. Created Views , Index are dropped Successfully.