

EXNO:7

DATE:

Views and Index

AIM:

To write an SQL query for views and Index.

CREATION OF VIEWS: Create a table employee with attributes empno, ename, job, mgr, hiredate, sal, commission, deptno with appropriate data type. Also create a table department with attributes deptno, dname, loc.

Query:

SQL> create table employee1(empno number(5),ename varchar(19),mgrssn number(5),salary number(7),deptno number(3));

Output:

Table Created

Query:

SQL> insert into employee1 values(&empno,&ename,&mgrssn,&salary,&deptno,&job');

Enter value for empno: 111

Enter value for ename: nirmala

Enter value for mgrssn: 3456

Enter value for salary: 40000

Enter value for deptno: 2

Enter value for job: lecturer

Output:

old 1: insert into employee1 values(&empno,&ename,&mgrssn,&salary,&deptno,&job')

new 1: insert into employee1 values(111,'nirmala',3456,40000,2,'lecturer')

1 row created.

SQL> select * from employee1;

EMPNO	ENAME	MGRSSN	SALARY	DEPTNO	JOB
111	nirmala	3456	40000	2	lecturer

112	nandhu	5678	80000	1	surgeon
113	sathya	2345	90000	3	marketing business
114	vino	6789	50000	2	doctor

Query:

SQL> create table department(deptno number(3),dname varchar(30),loc varchar(20));

Output:

Table Created

Query:

SQL> insert into department values(&deptno,&dname', '&loc');

Enter value for deptno: 1

Enter value for dname: medical

Enter value for loc: mumbai

Output:

old 1: insert into department values(&deptno,&dname', '&loc')

new 1: insert into department values(1,'sales','chennai')

1 row created.

SQL> select * from department;

Output:

DEPTNO	DNAME	LOC
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1	medical	mumbai
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2	english	chennai
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3	sales	madurai
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Q2: Create a view V1, which contain employee names and their manager names working in sales department

Query:

SQL> create view v1 as select ename,mgrssn from employee1 where deptno=(select deptno from department where dname='sales');

Output:

View created.

SQL> select * from v1;

ENAME	MGRSSN
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sathya	2345
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Q3: Create a view called V2 which contains column such as empno, name, job from employee table. If V2 already exists your view command has to delete existing view and recreated it with the current query.

Query:

SQL> create view v2 as select empno,ename,job from employee1;

Output:

View created.

SQL> select * from v2;

EMPNO	ENAME	JOB
111	nirmala	lecturer
112	nandhu	surgeon
113	sathya	marketing business
114	vino	doctor

SQL> create or replace view v2 as select empno,job from employee1;

View created.

SQL> select * from v2;

EMPNO	JOB
111	lecturer
112	surgeon
113	marketing business
114	doctor

Q3: Create a view V3 from employee table with check option on column sal>45000.

Query:

SQL> create view v3 as select empno,ename,salary,job from employee1 where salary>50000;

Output:

View created.

SQL> select * from v3;

EMPNO	ENAME	SALARY	JOB
112	nandhu	80000	surgeon
113 s	athya	90000	marketing business

Q4: Create a view called V4 for the table employee, which does not exists currently.

Query:

SQL> create view v4 as select ename,job from employee1;

Output:

View created.

SQL> select * from v4;

ENAME	JOB
nirmala	lecturer
nandhu	surgeon
sathya	marketing business
vino	doctor

SQL> create view v4 as select ename,empno from employee1;

create view v4 as select ename,empno from employee1

*

ERROR at line 1:

ORA-00955: name is already used by an existing object

Q5: Create a view V5 which performs read only operation

Query:

SQL> create view v5 as select deptno,dname from departmnt with read only;

Output:

View created.

SQL> select * from v5;

DEPTNO DNAME

1 medical

2 english

3 sales

SQL> insert into v5 values('empno','&name',&sal);

Enter value for ename:4

Enter value for hiredate: nanz

Enter value for sal: 52000

old 1: insert into v5 values('empno','&name',&sal)

new 1: insert into v5 values(4,'07-SEP-93',52000)

insert into v5 values(4,'07-SEP-93',52000)

*

ERROR at line 1:

ORA-42399: cannot perform a DML operation on a read-only view

Q5: Remove all the views.

Query:

SQL> drop view v1;

View dropped.

SQL> drop view v2;

View dropped.

SQL> drop view v3;

View dropped.

SQL> drop view v4;

View dropped.

SQL> drop view v5;

View dropped.

SQL> select * from v1;

```
select * from v1
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ERROR at line 1:

ORA-00942: table or view does not exist

INDEX:

The CREATE INDEX statement is used to create indexes in tables.

Indexes are used to retrieve data from the database more quickly than otherwise. The users cannot see the indexes, they are just used to speed up searches/queries.

Syntax

Creates an index on a table. Duplicate values are allowed:

```
CREATE INDEX index_name
```

```
ON table_name (column1, column2, ...);
```

Query:

```
Create Index employee
```

```
On employee1(empno ,ename);
```

RESULT:

Thus the query for views and index was executed successfully.