ROLL NO: 1913105P1 V SATYA SIVA LALITHA GAYATHRI BODA CSE 4

Part A

Aim: To create and drop View on the given table

Prerequisite: Relational Model

Outcome: Understanding and use of view.

Theory:

A view is the tailored presentation of data contained in one or more table and can also be said as restricted view to the data in the tables. A view is a "virtual table" or a "stored query" which takes the output of a query and treats it as a table. The table upon which a view is created is called as base table .

A view is a logical table based on a table or another view. A view contains no data of its own but is like a window through which data from tables can be viewed or changed. The tables on which a view is based are called base tables. The view is stored as a SELECT statement in the data dictionary .

Advantages of a view:

a. Additional level of table security.
b. Hides data complexity.
c. Simplifies the usage by combining multiple tables into a single table

Syntax

Create or replace view view_name AS SELECT column_name(s) FROM table_name WHERE condition Drop view ;

Example

Create or replace view empview as select * from emp;

Drop view empview.

Procedure:

1. Formulate the query for given problem.
2. Write the SQL query with proper input.
3. Execute the query.

Practice Exercise:

1. Create the following tables for a Library Database:
   BOOK (Book_id, Bname, Publisher_Name, Pub_Year, Price, edition, ISBN)
   Author(book number(10),author varchar(20),publisher varchar2(20),ISBN number(20));
2. Create a view PubDetails that display book name with publication details i.e. publisher name, publication year, edition, ISBN that are currently available in the Library.
3. Create a view that will display the book name with its author name.
4. Create a view from a view Pubdetails (created in question 2) which will display only book name and publisher name.
5. Drop all the views that are created.

Instructions:

1. Write and execute the query in Oracle SQL server.
2. Paste the snapshot of the output in input & output section.

Part B

Code :

1.create table BOOK(book_id number(10),bname varchar(20),pub_name varchar(20),pub_year number(4),price number(5),edition varchar(20),ISBN number(20));

create table Author(book number(10),author varchar(20),publisher varchar2(20),ISBN number(20));

```
SQL> create table BOOK(book_id number(10),bname varchar(20),pub_name varchar(20),pub_year number(4),price number(5),edition varchar(20),ISBN number(20));

Table created.

SQL> create table Author(book number(10),author varchar(20),publisher varchar2(20),ISBN number(20));

Table created.

SQL>
```

2.
create or replace view PubDetails as select bname,pub_name,pub_year,edition,ISBN from BOOK;

desc pubdetails;

```
SQL> create or replace view PubDetails as select bname,pub_name,pub_year,edition,ISBN from BOOK;

View created.

SQL> desc pubdetails;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 BNAME                                              VARCHAR2(20)
 PUB_NAME                                           VARCHAR2(20)
 PUB_YEAR                                           NUMBER(4)
 EDITION                                            VARCHAR2(20)
 ISBN                                               NUMBER(20)
```

3.
create or replace view Book_Author as select b.bname,a.author from book b,author a where b.book_id=a.book;

desc book_author;

```
SQL> create or replace view Book_Author as select b.bname,a.author from book b,author a where b.book_id=a.book;

View created.

SQL> desc book_author;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 BNAME                                              VARCHAR2(20)
 AUTHOR                                             VARCHAR2(20)

SQL>
```

4.

create or replace view sub_pubdetails as select bname,pub_name from pubdetails;

desc sub_pubdetails;

```
SQL> create or replace view sub_pubdetails as select bname,pub_name from pubdetails;

View created.

SQL> desc sub_pubdetails;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 BNAME                                              VARCHAR2(20)
 PUB_NAME                                           VARCHAR2(20)

SQL>
```

5.

drop view PubDetails;

drop view sub_pubdetails;

drop view book_author;

```
SQL> drop view PubDetails;

View dropped.

SQL> drop view sub_pubdetails;

View dropped.

SQL> drop view book_author;

View dropped.
```

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Observation & Learning:

Learned how to create a view from 1 table and from multiple tables and from another view.
Also practiced how to drop a view.

Conclusion:

Understood the concept of views and creation and dropping of views.

Questions:

1. Explain materialized and non-materialized views?

Answers

1. Materialized views are disk based and are updated periodically based upon the query definition. Materialized view allow to store the query result in disk or table

   Non-materialized views are virtual only and run the query definition each time they are accessed. In Non materialized views query result is not stored in the disk or database.