DBMS Lab 5

Objective: To modify the structure of the table

Alter table command is used to change the structure of a table. Using the alter table clause you cannot perform the following tasks:

- change the name of table
- change the name of column
- drop a column
- decrease the size of a table if table data exists.

The following tasks you can perform through alter table command.

1. Adding new column(s):
   ```
   alter table
     table_name
   add
     (
     column1_name column1_datatype column1_constraint,
     column2_name column2_datatype column2_constraint,
     column3_name column3_datatype column3_constraint
     );
   ```

2. Modifying existing table
   ```
   alter table
     table_name
   modify
     column_name  datatype;
   ```

NOTE: Oracle does not allow constraints defined using the alter table, if the data in the table violates such constraints.

Defining Integrity constraints in the ALTER TABLE command:

You can also define integrity constraints using the constraint clause in the ALTER TABLE command. The following examples show the definitions of several integrity constraints.

1. Add primary key
   ALTER TABLE table_name
   ADD CONSTRAINT constraint_name PRIMARY KEY (column1, column2, ... column_n);
2. Add foreign key

```
ALTER TABLE table_name
ADD CONSTRAINT constraint_name
  FOREIGN KEY (column1, column2, ... column_n)
  REFERENCES parent_table (column1, column2, ... column_n);
```

Dropping integrity constraints in the ALTER TABLE command:
You can drop an integrity constraint if the rule that is enforced is no longer true or if the constraint is no longer needed. Drop the constraint using the ALTER TABLE command with the DROP clause. The following examples illustrate the dropping of integrity constraints.

1. Drop primary key

```
ALTER TABLE table_name
DROP CONSTRAINT constraint_name;

ALTER TABLE table_name
DROP PRIMARY KEY
```

2. Drop foreign key

```
ALTER TABLE table_name
DROP CONSTRAINT constraint_name;
```

Assignments:

1. Create the following tables
   Free suggestion: Define the primary and foreign key constraints at table level with constraint name.

Challan_Header

Column name	data type	size	Attributes
Challan_no	varchar2	6	Primary key
s_order_no	varchar2	6	Foreign key references s_order_no of sales_order table
challan_date	date		not null
billed_yn	char	1	values ('Y','N'). Default 'N'

Challan_Details

Column name	data type	size	Attributes
Challan_no	varchar2	6	Foreign key references Challan_no of Challan_Header
Product_no	varchar2	6	Foreign key references Product_no of product_master
Qty_disp	number	4,2	not null

2. Insert the following values into the challan_header and challan_details tables.

data for **challan_header** table :

Challan No	S_order No	Challan Date	Billed_yn
CH9001	O19001	12-DEC-95	Y
CH6865	O46866	12-NOV-95	Y
CH3965	O10008	12-OCT-95	Y

Data for **challan_details** table:

Challan No	Product No	Qty Disp
CH9001	P00001	4
CH9001	P07965	1
CH9001	P07885	1
CH6865	P07868	3
CH6865	P03453	4
CH6865	P00001	10
CH3965	P00001	5
CH3965	P07975	2

3. Add a new column phone_no in the client_master table with datatype number(10,0).

4. Add the not null constraint in the product_master table with the columns description, profit_percent , sell_price and cost_price.

5. Change the size of client_no field to 10 in the client_master table.

6. Drop foreign key from challan_header table

7. Add foreign key in challan_header for s_order_no to s_order_no of sales_order table

Instructions for submission:

- Create a document with a name dbms_lab5_ceXXX (i.e. dbms_lab5_ce009, dbms_lab5_ce078, dbms_lab5_ce103)
- Write a query and include the snapshot/text (optional) of the query output in the same order as in assignment.
- Submit the document.

Additional assignment (optional)

- Practice the problem from sessional I question set.