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| **Part A**  **Projection, ORDER BY clause, Altering and dropping of tables (use constraints while creating tables) examples using SELECT command.** |
| **Aim:** SQL commands:   1. To sort data in a table 2. To create a table from an existing table 3. To insert data into a table from another table 4. To delete data from a table 5. To update the contents of a table 6. To modify the structure of a table (Alter table for adding/deleting columns and modifying columns) 7. To rename a table 8. To truncate a table 9. To drop a table |
| **Prerequisite:** Oracle. |
| **Outcome:** Table is created and records are inserted, viewed, and structure is modified. |
| **Theory:**  **Sorting data in a table**  Select \* from <TableName> order by <ColumnName1>, <ColumnName2> <SortOrder>; Creating a table from a table Create table <TableName> (<ColumnName1>, <ColumnName2>) as select <ColumnName1>, <ColumnName2> from <TableName>;  **Inserting data into a table from another table**  Insert into <TableName> select <ColumnName1>, <ColumnName2> from <TableName>;  **Delete data from a table**  Delete from <TableName>;  **Updating the contents of a table**  Update <TableName> set <ColumnName1>=<expression1>,<ColumnName2>=<expression2>;  **Modifying the structure of tables (SQL ALTER TABLE Syntax)**  alter table <TableName> add (<ColumnName1><datatype1>, <ColumnName2><datatype2>);  Adding columns  ALTER TABLE *table\_name* ADD *column\_name datatype*;  Deleting columns  ALTER TABLE *table\_name* DROP COLUMN *column\_name*;  Modifying columns (Prior Oracle 10G)  ALTER TABLE *table\_name* MODIFY COLUMN *column\_name datatype*;  ALTER TABLE *table\_name (*Oracle 10G and later:*)* MODIFY *column\_name datatype*;  **Renaming tables**  Rename <TableName> to <NewTableName>;  **Truncating Tables**  Truncate table <TableName>;  **Destroying Tables**  drop table <TableName>; |
| **Procedure:**   1. Formulate the query for given problem. 2. Write the SQL query with proper input. 3. Execute the query. |
| **Practice Exercise**   |  |  | | --- | --- | | 1 | List the emps in the asc order of their Salaries? | | 2 | List the details of the emps in asc order of the Dptnos and desc of Jobs? | | 3 | Display all the unique job groups in the descending order? | | 4 | Display all the details of all ‘Mgrs’ | | 5 | Display all the details of the emps whose Comm. Is more than their Sal. | | 6 | List the emps who are either ‘CLERK’ or ‘ANALYST’ in the Desc order. | | 7 | List the emps Who Annual sal ranging from 22000 and 45000. | | 8 | Create a table Emp\_Income(E\_ID,Name, Salary, Commission) from emp. | | 9 | Create a table Emp\_data(Name, Gender, Post, Dept\_in) from emp. | | 10 | Create a table Section(S\_ID, S\_name). (create by normal create table query) | | 11 | Copy required data into Section table from dapt table. | | 12 | Create table Relation(Ename, Manager, Dept\_no). (create by normal create table query) | | 13 | Add age at attribute to the employee table | | 14 | Remove customer name attribute from the depositor table | | 15 | Increase the size of column ename in table employee to 15. | | 16 | Add New column’ Data\_of\_Birth’ in the Emp\_data table. Which is of type Date. | | 17 | Change the name of the Section table to Office, and Relation to Association. | | 18 | Update the commission of all clerks to 500 in EMP. | | 19 | Change the salary of every manager to 50000 in Emp\_income. | | 20 | Increase the salary of every salesman by 500 in Emp\_income. | | 21 | Delete the information of all employees of dept\_no 20 in Emp\_data. | | 22 | Delete all the data from Association and Office. | | 23 | Delete the information of ‘martin’ from Emp\_data table. | | 24 | Increase the commission of all the females by 10%. | | 25 | Completely delete all the tables created today. | |
| **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 and Output:**  **1** |
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| **Observation & Learning:**  From this experiment, I observed and learned how the following SQL COMMANDS works   1. To sort data in a table 2. To create a table from an existing table 3. To insert data into a table from another table 4. To delete data from a table 5. To update the contents of a table 6. To modify the structure of a table (Alter table for adding/deleting columns and modifying columns) 7. To rename a table 8. To truncate a table 9. To drop a table |
| **Conclusion:**  Projection, ORDER BY clause, Altering and dropping of tables commands executed successfully. |
| **Questions:**   1. What happen if where clause is not given in query? 2. If you want to choose a specific data or retrieve a specific data we use the keyword   WHERE , without which we cannot get the data from a desired location ,so we get an  error if WHERE clause is not used in subquery.   1. What are the various comparison operator used in condition part?   A) The operators used in the condition part are  1)EQUAL TO =  2)GREATER THAN OR EQUAL TO >=  3)LESS THAN OR EQUAL TO <=  4)GREATER THAN >  5)LESSER THAN <  6)NOT EQUAL <>   1. Give the difference between delete, truncate, and destroy command. 2. Difference between Truncate ,delete and destroy is   TRUNCATE SQL query removes all rows from a table, without logging the individual row deletions. TRUNCATE is faster than the DELETE query.  DELETE query deletes all records from a database table. To execute a DELETE query, delete permissions are required on the target table. If you need to use a WHERE clause in a DELETE, select permissions are required as well.  DROP table query removes one or more table definitions and all data, indexes, triggers, constraints, and permission specifications for those tables. DROP command requires to ALTER permission on the schema to which the table belongs, CONTROL permission on the table, or membership in the db\_ddladmin fixed database role.   1. What happen if domain type of data inserted is different from that of column? 2. Data cant be inserted as the datatype of column does not match with given input data and error message will be displayed. 3. What are the various comparison operator used in condition part? 4. = (equal to)   < > (not equal to)  > (greater than)  < (less than)  >= (greater than or equal to)  <= (less than or equal to)   1. What is the meaning of NULL in DBMS? 2. Null means having no value; in other words null is zero. |