Training Exercise - 2

Other Keywords, Aggregate Functions, Date Time, Conditional Statements, Constraints, Indexes, Sequences, Joins, Views, SQL Files, Back Up & Restore

1. Write a select query with multiple conditions using ‘AND’ and ‘OR’.

2. Create a table employee where it contains id, name, city. Find the city which ends with ‘abad’. Enter 30 records scattered in different cities like Hyderabad, Ahmedabad, Mumbai, Delhi, Chennai, Kochin, Kolkatta, Pune, Bangalore.

3. Search records where the city contains the string ‘under’.

4. Search records where the third last character of the city is ‘b’.

5. Search the records where first characterof the city is ‘A’.

6. Search the records where second Charator of the city is ‘o’.

7. Search first 10 records.

8. Search first 5 records where city is Mumbai

9. Search first 5 records where city is Mumbai or Bangalore. Search the next 5 records skipping the first 5 records where city is Mumbai or Bangalore.

10. Sort the records where city is Mumbai or Bangalore by City Name.

11. Sort all the records of the table by ID in descending order.

12. Insert few records where the city is not entered. Search all the records where the city field is blank.

13. Add a date field in the existing table. Search the records where date is in current year.

14. Enter few duplicate records where name is duplicate. Select unique records from a table.

15. Enter a column amount in the table. Get a total of the complete amount.

16. Get total of amount by city.

17. Get avg of amount by city.

18. Get maximum amount from all records

19. Get minimum amount from all records.

20. Fetch the quarter of the date field for all the records.

21. Fetch the year of the date field for all the records.

22. Fetch the weekday of the date field for all the records.

23. For all the records fetch whether it’s a new admission or old admission. If the date is of current year it will be a new admission else it will be an old admission. Display, id, name and new/old admission. NOTE: Admission field not to be added in the table.

24. Add a primary key to the table as id.

25. Create two tables one will be employee and another will be city. Add a primary key id in both the tables. Add a foreign key of city in the employee table as city_id.

26. Add a not null constraint for name field in employee.

27. Add a new field in Code in the city table. Add a unique constraint on the code field.

28. Add another table called Company and a primary key as id. Now add a foreign key of company in city table. Add a unique constraint with combination of company and code fields. Remove the old unique constraint with only code field.

29. Check that the date is not before 2010-01-01 in the employee table using check constraint.

30. Create an index on the name field in City Table.

31. Create an index on the date and city fields in Employee Table

32. Create an index on the name field in Employee table.

33. Create an index on the name field in Company table. Remove the index.

34. Create a primary key in a new table where there is an auto generated number starting from 1 without create a sequence.

35. Create a sequence starting from 1000. Create a primary key in a new table. When inserting records use this sequence.

36. Create a sequence starting from 500. Create a primary key in a new table and assign default value from this sequence.

37. Delete the sequence which was created with 1000. Try to use the sequence to insert records.

38. Display the fields id, name, city name from employee and city tables using inner join and aliases.

39. Display id, name, city name and company name from employee, city and company tables.

40. Create a view using the above select query result.

41. Delete the view and create a new view adding fields as id, name, amount, date, city name , city code and company name.

42. Insert 15 records using an sql file. In the same file update 5 records of the city Mumbai increase the amount with 10.

43. Create a backup of the database and restore it using PSQL.

44. Create a backup of the database and restore using pg_restore