SQL Lab

1. Create the table **PROGRAMMER** with the given information using **SQL CREATE TABLE** commands:

Attribute Name	Description/Data type/Constraint
EmpNo	Employee's Unique ID. Max 5 characters should be numeric
ProjId	Project in which programmer participates. Max 3 characters should be numeric
LastName	Surname of employee. Max 30 characters Required.
FirstName	Employee's first name. Max 30 characters
HireDate	Date on which employee was hired. Date data type
Language	Programming Language used by programmer. Max 15 characters
TaskNo	Number of the rask associated with the project. Numeric column, max 2 digits
Privelege	Type of privilege given to programmer. Max 25 characters

2. Insert the following data into the **PROGRAMMER** table

EmpNo	LastName	FirstName	Hiredate	ProjId	Language	TaskNo	Privelege
201	Gupta	Saurav	1/1/95	NPR	VB	52	Secret
390	Ghosh	Pinky	1/5/93	KCW	JAVA	11	TopSecret
789	Agarwal	Praveen	8/3/98	RNC	VB	11	Secret
134	Chaudhury	Supriyo	7/15/95	TIPPS	C++	52	Secret
896	Jha	Ranjit	6/15/97	KCW	JAVA	10	TopSecret
345	John	Peter	11/15/99	TIPPS	JAVA	52	
563	Anderson	Andy	08/15/94	NITTS	C++	89	Confidential

3. Write SQL queries to:

   a. Saurav Gupta is assigned a different project with id NITTS and he would work with C++ now. Update this change in the **PROGRAMMER** table.

   b. Supriyo Chaudhury has resigned his job. Incoprate this in the table **PROGRAMMER**.

   c. The column TaskNo in the **PROGRAMMER** table is no longer needed. Delete the column.

4. Create table Department

Attribute Name	Description/Data type/Constraint
DeptNo	Department number is Unique ID.
Dname	Department name of a particular department, Dname should not be null.
Loc	Location of the department, loc should not be null.

5. In DEPARTMENT table, increase the field width if DNAME from 20 to 50

6. Insert the following data into the Department table

DEPTNO	DNAME	LOC
10	ACCOUNTS	NEWYORK
20	MARKETING	CHICAGO
30	SALES	ATLANTA
40	RESEARCH	OHIO

7. Create table Employee

Attribute Name	Description/Data type/Constraint
EmpNo	Employee number is Primary Key.
Ename	Name of the employee, Cannot be null
Job	Cannot be null, The job of the employee can be MANAGER, CLERK, PRESIDENT
Sal	Cannot be null
Hiredate	Cannot be null
Deptno	Should reference Department Table, Deptno

8. In EMPLOYEE table add a new attribute MGR(Manager ID) consisting 4 Characters

9. Insert the following DATA into the Employee Table

EMPNO	ENAME	JOB	SAL	HIREDATE	DEPTNO
7001	JAMES	CLERK	3000	6/5/2005	10
7002	MASON	PRESIDENT	10000	6/6/2005	20
7003	CLARK	MANAGER	5000	6/5/2004	20
7004	JOHN	MANAGER	6000	6/8/2005	10
7005	BLAKE	CLERK	3500	6/9/2005	30

10. Create table Grade

Attribute Name	Description/Data type/Constraint
GradeNo	Grade number is Primary Key.
Hi_sal	Cannot be null
Lo_sal	Cannot be null

11. Drop the column Lo_sal from Grade Table

12. Add column Low_sal in Grade table

13. Insert the following data into the table

GRADE_NO	HI_SAL	LO_SAL
1	2000	500
2	3500	2100
3	6000	3600
4	15000	6100

14. Create table EMPLOYEE_BACK from employee table

15. Increase the salary of JAMES from 3000 to 3500

16. Increase the salary of all MANAGER by 1000

17. Decrease the salary of DEPTNO 10 by 100

18. Add a new field COMM in EMPLOYEE table

19. Initialize the value of COMM to zero in EMPLOYEE table.

20. Remove the employees who have joined before 6-Jun-2005

21. Remove employees whose salary is less than 3000

22. List all employees who are working in department 10.

23. List all employees of department 10 and are MANAGER

24. List all employees whose salary is between 3000 and 5000

25. List all employees who have joined after 10th July 2005

26. List all employees who are MANAGER or PRESIDENT

27. List all employees who are in deptno 10 or 20 and who are MANAGERS

28. Update the commission of employees in deptno 10 to 500.

29. List all employees whose commission is null.

30. List the employees who are not a PRESIDENT or MANAGER

31. List all employees whose name begin with J

32. List all employees whose name consists of A

33. List the employee sal, comm. and bonus (Bonus is sal+comm.)

34. Display the salary of employees of MANAGER increased by 10%. The output should display salary and increased salary.

35. Update the salary of MANAGER by 10%.

36. Display the employees in the desscending order of names

37. Display the employees in the ascending order of deptno, Job

38. Display all the employee names with the first letter in capitals and all the other characters in lower case

39. Display all the employee names in lower case

40. Display the employee name and the position of letter A in each name

41. Extract the last 3 characters in employee name and display them.

42. Display the employee name and the length of the name

43. Display the current system date and time

44. Display the employee name and the date when each employee completes 5 years in the company

45. Display the last day of the month for the current system date

46. Display the last day of the month for all the hiredates in EMPLOYEE table

47. Display the employee name, hiredate and the total months of experience as on 8th June 2008

48. Display the employee name, sal and comm. for all employees. Employees having commission as null should be displayed as 99

49. Drop table employee EMPLOYEE_BACK

50. Display the number of employees in department 10

51. Display the number of employees in each department

52. Display the number of employees in each department job wise

53. Display the total number of employees in the table

54. Display the employee earning the highest salary

55. Display the employee earning the highest commission

56. Display the employee earning the lowest salary

57. Display the average salary for each department

58. Display distinct jobs in the table

59. Display the deptno where the number of employees is greater than 3.

60. Display the total salary department wise

61. Display the employee name, job and rank. If the job is PRESIDENT then rank is 1, If the job is MANAGER then rank is 2 , if the job is CLERK then the rank is 3.

62. Display the job and total salary for each job having number of employees greater than 5

63. There is a deduction of 5000 from every employee's salary. Check for the balance salary and display the appropriate message. If the deduction causes value to be less than zero display "Insufficient for Deduction", if greater than zero "Can be Deducted"

64. Create a table EMPLOYEE_DUP from EMPLOYEE. The new table should only have the structure and should not have any data values.

65. List the employees who are in the same department as that of CLARK

66. List the employees who drawing the same salary as that of BLAKE

67. List the employees whose salary is greater than the average salary

68.List the employees who are located in NEWYORK or CHICAGO

69. List the employees whose salary is greater than the salary of BLAKE or CLARK.

70. Increase the salary of employees by 10% , who are located in CHICAGO

71.Delete the employees whose rowid is greater than the rowed of CLARK

72.List the employees whose salary is greater than the average salary of his own department.

73. List the employees who are not in the same department as that of BLAKE or CLARK

74. Display the department number, name and location for the department for which there exists employees

75. Create a view emp_vw consisting of ename, sal, job of employees in department 10

76.Create a view emp_vw1 consisting of employee names, sal and job of employees located in CHICAGO

77.Create a view emp_dept consisting of employee names, job, sal , department name and location

78.Create a sequence emp_seq

79.Create a sequence emp_seq1 starting with 1 and increment it by 1

80.Implement the sequence while creating table.