

# Database Systems

Fall 2020

## Practice File

**The objective of this file is to master every clause that you have studied in class until now.**

**Course & Lab Instructor:** Sir Asif Sohail

1. LIST EMPLOYEES' NAMES, SAL AND ANNUAL SAL FROM EMP TABLE.
2. LIST ALL EMPLOYEES WHO ARE EITHER MANAGER OR CLERK.
3. LIST ALL EMPLOYEES WHO ARE CLERK OF DEPARTMENT NUMBER 20.
4. LIST ALL EMPLOYEES WHO ARE NOT MANAGER.
5. LIST ALL EMPLOYEES WHO DO NOT WORK IN DEPARTMENT NUMBER 10, 20.
6. LIST ALL SALESMAN WITH A DERIVED COLUMN THAT ADDS 500 RUPEES IN THEIR SALARY.
7. LIST ALL EMPLOYEES HAVING SALARY BETWEEN 2000 AND 3000.
8. FIND THE TWENTY PERCENT OF 'MANAGER' SALARY.
9. FIND THE DAILY WAGES OF EACH EMPLOYEE.
10. FIND THOSE EMPLOYEES WHOSE COMMISSION IS LESS THEN THEIR SALARIES.
11. FIND THOSE EMPLOYEES WHOSE MGR IS 7902, 7566, 7788.
12. JOIN ENAME AND JOB. THEN CHANGE THE COLUMN HEADING AS COMP\_NAME.
13. LIST ALL RECORDS AS FOLLOWS. SMITH IS CLERK AND HE IS WORKING IN DEPT NO 20 SINCE 12-MAR-1981.
14. LIST ALL EMPLOYEES WHOSE NAME START WITH 'S'.
15. LIST ALL EMPLOYEES HAVING LAST LETTER IN THEIR NAME 'R' OR 'N'.
16. LIST ALL EMPLOYEES HAVING FIRST LETTER IN THEIR NAME 'W' OR 'K' AND THEY DON'T BELONG TO DEPARTMENT NUMBER 10 OR 20.
17. LIST ALL EMPLOYEES WHO DOES NOT HAVE A MANAGER.
18. LIST OF THOSE EMPLOYEES HAVING ONLY 5 CHARACTERS LONG NAME AND JOB AS A MANAGER.
19. FIND ALL EMPLOYEES WHO ARE EITHER CLERK OR MANAGER AND ALL EMPLOYEES WHO EARN SALARIES IN THE RANGE OF 1000 AND 2000.
20. FIND THE DAILY WAGES OF EACH EMPLOYEE.
21. DISPLAY ANNUAL SALARY AND ADD COMM OF ALL EMPLOYEE USING NULL VALUES FUNCTION AND CHANGE THE COLUMN HEADING ANNUAL\_SALARY.
22. FIND THOSE EMPLOYEES WHOSE MGR IS 7902, 7566, 7788.
23. FIND THE AVERAGE SALARY OF EACH JOB WITHIN DEPARTMENT.
24. HOW MANY MANAGERS DO WE HAVE?
25. WRITE A QUERY TO DISPLAY THE DIFFERENCE BETWEEN THE HIGHEST AND LOWEST SALARIES.
26. LIST MINIMUM AND MAXIMUM SALARIES OF EACH JOB IN EACH DEPARTMENT HAVING AVERAGE SALARIES GREATER THEN 2500.
27. SUPPOSE THAT ALL THE EMPLOYEES WERE HIRED ON 6 MONTHS PROBATION PERIOD. LIST THE HIREDATE AND LAST DATE OF PROBATION FOR EACH EMPLOYEE.

28. FIND THE MANAGER OF 'SCOTT'.
29. FIND THE LOWEST PAID JOB ON THE BASIS OF AVERAGE SAL AGAINST THAT JOB.
30. FIND THE DURATION OF SERVICE (IN MONTHS) and (IN YEARS) OF ALL EMPLOYEES.
31. DISPLAY THE NAME, JOB, AND SALARY FOR ALL EMPLOYEES WHOSE JOB IS CLERK OR SALESMAN AND WHOSE SALARY IS NOT EQUAL TO 950, 1300, OR 1800.
32. DISPLAY THE NAMES AND DEPARTMENT NO. OF ALL EMPLOYEES WHO ARE IN DEPARTMENT NO. 20 OR 50 IN ALPHABETICAL ORDER BY NAME.
33. DISPLAY THE NAME, SALARY, AND COMMISSION FOR ALL EMPLOYEES WHO EARN COMMISSION. SORT DATA IN DESCENDING ORDER OF SALARY AND COMMISSION.
34. WRITE A QUERY THAT DISPLAYS THE EMPLOYEE'S NAMES WITH THE FIRST LETTER CAPITALIZED AND ALL OTHER LETTERS LOWERCASE, AND THE LENGTH OF THE NAMES, FOR ALL EMPLOYEES WHOSE NAME STARTS WITH J, K, OR S (BOTH CAPITAL AND SMALL). GIVE EACH COLUMN AN APPROPRIATE LABEL.
35. DISPLAY NAMES, SALARY AND COMMISSION OF EMPLOYEES WHO EARN MORE THAN 800. NOW CREATE A **FOURTH COLUMN** FOR WHICH YOU WILL INCREASE THE SALARY BY 50% THEN ADD IT WITH THEIR COMMISSION THEN DIVIDE IT BY 5000 AND FINALLY DISPLAY THE **REMAINDER** AFTER DIVISION. NAME THE FOURTH COLUMN "**REMAINDER**".
36. HOW MANY EMPLOYEES ARE THERE WHO ARE MANAGER AND EARN MORE THAN 2500.
37. DISPLAY THE MINIMUM SALARY, MAXIMUM SALARY, AVERAGE SALARY AND SUM OF ALL SALARIES IN FOUR DIFFERENT COLUMNS. THE COLUMN NAMES SHOULD BE PROPER.
38. MAKE A COLUMN AND DISPLAY THE TOTAL NUMBER OF ROWS IN EMP TABLE. NAME THE COLUMN 'NUMBER OF ROWS'.
39. SHOW THE **DATE** OF OLDEST HIRED EMPLOYEE AND THE NEWEST HIRED ONE. NAME THE FIRST COLUMN AS 'BOOMER' AND SECOND 'NOOB'.
40. SHOW THE DATE OF OLDEST HIRED **ANALYST** AND ALSO SHOW THE SUM OF SALARY OF ALL **ANALYSTS**. NAME THE TWO COLUMNS PROPERLY.
41. DISPLAY ALL THREE COLUMNS OF TABLE SALGRADE BUT IN THE FOLLOWING FORMAT.  
GRADE: '1'                      LOSAL: '800'                      HISAL: '3,000'
42. GENERATE A SALARY REPORT OF ALL THE EMPLOYEES WITH THEIR HOUSE RENT, MEDICAL ALLOWANCE, CONVEYANCE AND TAX AND TAKE HOME SALARY.  
THE PERCENTAGES OF THE ATTRIBUTES ARE;  
**HOME RENT: 20% OF THE ORIGINAL SALARY**  
**MEDICAL ALLOWANCE: 5% OF THE ORIGINAL SALARY**  
**CONVEYANCE: 7% OF THE ORIGINAL SALARY**  
**TAX: 3% OF THE ORIGINAL SALARY**
43. DISPLAY CURRENT TIMESTAMP. (*TIMESTAMP CONTAINS DATE YEAR, MONTH, DAY AND TIME HOURS, MINS AND SECONDS*)
44. DISPLAY EACH EMPLOYEE'S NAME, HIRE DATE, AND SALARY REVIEW DATE, WHICH IS THE FIRST MONDAY AFTER SEVEN MONTHS OF SERVICE. LABEL THE COLUMN REVIEW.
45. WRITE A QUERY TO DISPLAY SECOND LAST CHARACTER OF EACH EMPLOYEE'S NAME AND EMPLOYEE NAME IN CAMEL CASE NOTATION.
46. WRITE A QUERY TO DISPLAY EMPLOYEES NAME AND SALARY OF ALL EMPLOYEES. FORMAT THE SALARY TO BE 15 CHARACTERS LONG. LEFT PADDED WITH \$. LABEL THE COLUMN SALARY.

47. WRITE OUTPUTS OF FOLLOWING:
- a. CONCAT ('WORLD', 'HELLO')
  - b. SUBSTR ('FREDRICK',2,4)
  - c. LENGTH ('FRANKLIN')
  - d. INSTR ('STEVE', 'E')
48. DISPLAY THE EMP-CODE FOR ALL THE EMPLOYEES CONSISTING OF FIRST THREE LETTERS OF THEIR JOB FOLLOWED BY HYPHEN FOLLOWED BY LAST 2 DIGITS OF THE EMPNO.
49. DISPLAY ONLY THE YEAR FROM THE HIREDATE.
50. USE NVL2 FUNCTION TO DISPLAY NET SAL OF EACH EMPLOYEE CONSISTING OF SAL + COMM.
51. DISPLAY SUM OF COUNT OF A'S AND 'R' IN ENAME OF EACH EMPLOYEE.
52. GET THE MONTH NAME FROM THE HIREDATE OF EACH EMPLOYEE.
53. DISPLAY THE COLUMN JOB FROM EMP TABLE AND CHANGE THE JOB POST OF EMPLOYEES FROM 'ANALYST' TO 'ENGINEER'.
54. INCREASE THE SALARY OF 'MANAGER' BY 10%, 'PRESIDENT' BY 25% AND 'CLERK' BY 5%.
55. DISPLAY THE DEPARTMENT HAVING MAXIMUM NUMBER OF EMPLOYEES.

*Life is like a sewer... what you get out of it depends on what you put into it.* ✨

~Master Oogway👉👈.