Manipulating Sailor Information Using DML

Aim: To learn the following:
a) Update operations such as INSERT, UPDATE, DELETE
b) Controlling the transactions using COMMIT, SAVEPOINT, ROLLBACK
c) SELECT Clause
     i) Using arithmetic operators, logical operators
    ii) Using LIKE, BETWEEN, IN keywords
    iii) Using Character, Date, Number and Aggregate functions
    iv) Using GROUP BY, HAVING, ORDER BY

1. Insert the following data into Sailor relation:

Sailor ID	*Name*	*rating*	*DOB*	*Salary*
S100	Raman	A	01- OCT-1980	27000
S200	Krishna	B	04-JUL-1978	21000
S300	Gokul	C	05-FEB-1975	16000
S400	Ravi	D	06-APR-1984	10000
S500	James	A	07-MAR-1983	25000
S600	Vasanth	B	20-MAR-1985	20600
S700	Rahul	C	13-DEC-1985	15500
S800	Vijay	null	13-DEC-1990	5000

2. Display the name and salary of sailors earning more than $10000.

3. Display the unique ratings of sailor from the SAILOR relation.

4. Display sailor name, hike salary by 10% and label the columns as `Sailor Name` and `New Salary` respectively.

5. List sailor id, name, salary of all sailor(s) who was not rated yet.

6. Show all data for sailors whose name starts with R and born before the year 1985.

7. Display name, rating, salary of all sailors whose rating is A or B and whose salary is not equal to $21000 and $25000.

8. Modify the query in 2 to display the name and salary of all sailors whose salary is not in the range of $10000 to $16000.

9. List the sailors who was born between Jan 1985 and Dec 1985.

10. Show the name of sailors together with their age in number of years and months. [E.g., 18 Yrs 4 Months].

11. Display the sailor id and name of a sailor whose name has second letter *a*. Sort the result by name in descending order.

12. Show those sailors whose name starts with J,K, or R.

13. How many sailors have a name that ends with letter *l*.

14. Display highest, lowest, sum and average salary earned by the sailors in ratingwise. Label the columns as Max, Min, Sum, and Avg respectively. Round your results to the nearest whole number. Sort your result by alphabetical order of rating.

15. Display the total salary for each rating. Exclude the ratings where the total salary is less than $25000

16. Display the rating and salary of the lowest paid sailor in each rating. Exclude anyone whose rating is not known. Exclude any groups where the minimum salary is $15000 or less. Sort the output in descending order of salary.

Using Update, Delete, TCL Statements

17. Mark an intermediate point in the transaction (savepoint).

18. Update the rating, salary of S800 to A, 10000 respectively.

19. Mark an intermediate point in the transaction (savepoint).

20. Update the salary of all sailors with a hike by 5%.

21. Delete the sailor(s) who was born before 1985.

22. Display the sailor relation.

23. Discard the most recent update operations (rollback).

24. Commit the changes.

What you have to submit:

1. Schema Diagram with constraints

2. Demo script file