**EXPERIMENT 8**

**SAILOR BOAT DATABASE (DDL, DML, DQL, Subquery, Joins, Set operations**)

**Aim:**

* Create sailors, boats, and reserves.(foreign key)
* Insert 5 values each table.
* Display all records.
* Find the names and ages of all sailors.
* Find all sailors with ratings above 8.
* Find sailors name with rating above 7 & age above 25.
* Display all the names & colors of the boats.
* Find all the boats with Red colors.
* Find the names of sailors' who have reserved boat number 103.
* Find the sids of sailors who have reserved blue boat
* Find the names of sailors' who have reserved Red boat.
* Find the colours of boats reserved by some name(provide any name in table).
* Find the names of the sailors who have reserved at least one boat.
* Find the names of the sailors who have reserved two different boats.
* Find the names of sailors who have reserved a Red or a Green boat.(union)
* Find the names of sailors who have reserved both a Red and a Green boat.
* Find the names of sailors who have reserved boat 103.(nested query)
* Find the names of sailors who have reserved red boat.(nq)
* Find the names of sailors who have not reserved red boat.(nq)
* Find the names of sailors who have reserved boat number 103.(exists)
* Find sailors whose rating is better than some sailors called name.
* Find sailors whose rating is better than every sailor' called name.
* Find the sailors with highest rating.
* Find the average age of all sailors.
* Find the average age of sailors with a rating of 10.
* Count the number of sailors.
* Count the number of different sailor ratings.
* Find the name and age of the oldest sailor.
* Find the names of the sailors who are older than the oldest sailor with a rating of 10.
* Find the age of youngest sailor for each rating level.
* Find the age of the youngest sailor who is eligible to vote (i.e., is at least 18 years old) for each rating level with at least two such sailors.
* For each red boat, find the number of reservations for this boat.
* Find all sailors name according to names.
* Find all sailors details according to rating.
* Find all sailors details according to rating(highest first) if ratings are same then according to age(youngest first).

**Components:**

Subquery: A subquery is also called an inner query or inner select, while the statement containing a subquery is also called an outer query or outer select.

Joins: A join is an SQL operation performed to establish a connection between two or more database tables based on matching columns, thereby creating a relationship between the tables.

Set operations: Set Operations in SQL eliminate duplicate tuples and can be applied only to the relations which are union compatible. Set Operations available in SQL are :

1. Set Union

2. Set Intersection

3. Set Difference

**Code:**

**Graphical user interface, text

Description automatically generated**

**Graphical user interface, text, application, email

Description automatically generated**

**Text

Description automatically generated with medium confidenceGraphical user interface

Description automatically generated with medium confidence**

**Graphical user interface, text, email

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**Output:**

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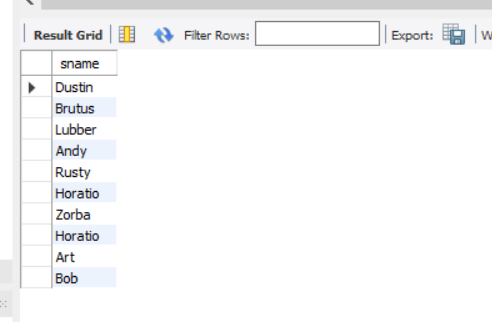
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