**Experiment No:** 5

**SQL QUERIES using SET Operators**

**Date : 27/09/2022**

**Theory:**

Set operators are used to join the results of two (or more) SELECT statements.The SET operators available in Oracle 11g are UNION,UNION ALL,INTERSECT,and MINUS.

The UNION set operator returns the combined results of the two SELECT statements. Essentially, it removes duplicates from the results i.e. only one row will be listed for each duplicated result. To counter this behavior, use the UNION ALL set operator which retains the duplicates in the final result. INTERSECT lists only records that are common to both the SELECT queries; the MINUS set operator removes the second query's results from the output if they are also found in the first query's results. INTERSECT and MINUS set operations produce unduplicated results.

**An instance S3 of Sailor**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sid** | **Sname** | **Rating** | **Age** |
| 22 | Dustin | 7 | 45.0 |
| 29 | Brutus | 1 | 33.0 |
| 31 | Lubber | 8 | 55.5 |
| 32 | Andy | 8 | 25.5 |
| 58 | Rusty | 10 | 35.0 |
| 64 | Horatio | 7 | 35.0 |
| 71 | Zorba | 10 | 16.0 |
| 74 | Horatia | 9 | 35.0 |
| 85 | Art | 3 | 25.5 |
| 95 | Bob | 3 | 63.5 |

**An instance R2 of Reserve**

|  |  |  |
| --- | --- | --- |
| **Sid** | **Bid** | **day** |
| 22 | 101 | 10/10/98 |
| 22 | 102 | 10/10/98 |
| 22 | 103 | 10/08/98 |
| 22 | 104 | 10/07/98 |
| 31 | 102 | 11/10/98 |
| 31 | 103 | 11/06/98 |
| 31 | 104 | 11/12/98 |
| 64 | 101 | 9/5/98 |
| 64 | 102 | 9/8/98 |
| 74 | 103 | 9/8/98 |

**An instance B1 of Boat**

|  |  |  |
| --- | --- | --- |
| **Bid** | **Bname** | **Colour** |
| 101 | Interlake | Blue |
| 102 | Interlake | red |
| 103 | Clipper | Green |
| 104 | Marine | red |

**SQL Queries to be executed using above tables**

1. Find the distict name and age of sailor .
2. Find all sailor with rating greater above 7
3. Find the names of sailor who have reserved the boat no 103.
4. Find the sids of sailor who have reserved red boat
5. Find the names of sailors who have reserved a red boat
6. Find the colors of boats reserved by Lubber
7. Find the names of sailors who have reserved at least one boat.
8. Find the names of sailors who have reserved a red or a green boat.
9. Find the names of sailors who have reserved both a red and a green boat.
10. Find all sids of sailors who have a rating of 10 or have reserved boat 104.

**Conclusion:**