Practice Exercises for External Lab

1. A)Find names of sailors who have reserved all boats using NOTEXISTS
   B)Write a pl/sql program to handle a user defined exceptions
   C)Write a pl/sql program to find area of rectangle and check it is greater than perimeter or not

2. A)Find name and age of oldest sailor using nested query
   B) To write a pl/sql program to displaying top 10 employee details based on salary using cursors
   C) Write a pl/sql program to find factorial of a number

3. A)Find names of sailors who are older than oldest sailor with a rating of 10 using ALL operator
   B) Write pl/sql code to delete the record of an employee whose salary is more than 4000 .
   C) Write a pl/sql to find the sum individual digits of a positive number

4. A)Find the age of the youngest sailor who is eligible to vote for each rating level with at least 2 such sailors
   B) Write a program to create a emp %rowtype record . Accept the empno from the user, and display all the information about the employee
   C) Write a sub query to update salary by 0.25 times CUSTOMERS table for all customers whose age is greater than or equal to 27.

5. A)For each red boat find the number of reservations for this boat
   B) To write a pl/sql program to display the employee details using %rowtype data type
   C) Create a customer table with fields ID ,NAME, AGE, ADDRESS, AGE write a sql query to display record for which similar age count would be more than or equal to 2

6. A)Write a sql query to retrieve the sailors whose rating is above 7.
   B)Write a pl/sql program asks for a customer ID,when user enters an invalid ID,the exception invalid_id is raised
   C) Write a sql query to delete records from the customer table ID, NAME, AGE, ADDRESS, AGE with fields table having age = 25 and then COMMIT the changes in the database.

7. A) List sailors' sids whose rating is higher than at least one of the sailors whose name is Horatio.
   B)Write a pl\sql program to create a row level trigger for the customers table that would fire for INSERT, UPDATE or DELETE operations performed on the CUSTOMER table and this trigger will display the salary difference between the old value and new value

8. A)List of sailors' sids whose rating is higher than all sailors named Horatio.
   B)Write a pl/sql program to create a cursor to select the five highest paid employees from the employee table
   C)Write a pl/sql program to displaying employee details using cursors

9. A) Write a pl\sql program to create a row level trigger for the customers table that would fire for INSERT, UPDATE or DELETE operations performed on the CUSTOMER table and this trigger will display the salary difference between the old value and new value
   B)Consider the following tables. SAILOR(sid, sname, rating, age) BOATS(bid, bname, colour) RESERVES(sid, bid, day)
   i. Create the above tables by properly specifying the primary keys and foreign keys and enter at least 3 tuples for each relation.
   ii. List the sailors in the descending order of their rating.

1. a. Explain the DDL command (create, alter, drop, desc) and DML commands (delete, update) with sample queries.
b. Demonstrate procedures in PL/SQL with sample program.
2. a. Create a table with integrity constraints (primary key, not null, unique) and demonstrate insert command for different integrity constraints with sample queries.
b. Demonstrate cross join, natural inner join, natural left outer join, natural right outer join and natural full outer join with sample queries.
3. a. Create a table with Referential integrity constraints (foreign key) and demonstrate select command for different constraints (all, distinct, like, between, is null, is not null)
b. Demonstrate functions in PL/SQL with sample program.
4. a. Explain the aggregate functions (avg, sum, max, min, count) and demonstrate order by, group by, having clause with sample queries
b. Demonstrate implicit cursors in PL/SQL with sample programs.
5. a. Explain the following numeric functions: (i)abs (ii)pow (iii)round (iv)sqrt (v)floor (vi)ceil
b. Create a view and perform insert, delete, update, desc & drop commands on views
c. Demonstrate pre-defined exceptions in PL/SQL with sample programs.
d. Demonstrate triggers in PL/SQL with sample program.
e. Demonstrate explicit cursors in PL/SQL with sample programs.

6a. Demonstrate user defined exceptions in PL/SQL with sample programs.
b. Demonstrate select command for logical operators in where clause (and, or, not) and set operations (union, union all, intersect)
c. Create a view and perform join operations on view.
d. Explain how sub query is used in select, delete, insert, update statement, from clause and where clause (in, not in, all, some, exists, not exists)
e. Demonstrate function in PL/SQL with sample program.