1. Create the following tables with given attributes having appropriate data type and specify the necessary primary and foreign key constraints:

   Customer (Custid, Custname, Age, phone)

   Loan (Loanid, Amount, Custid, EMI)

   a) List the name of the customers who have taken loan for more than Rs.50,000.

   b) List the Customer id of those who have no loan.

   c) List the total count of loan availed.

   d) Create a procedure to print the Amount and Custid when the Loanid is given as input.

2. Create the following tables with given attributes having appropriate data type and specify the necessary primary and foreign key constraints:

   Employee (EmpId, Empname, Sal, Deptno) **Dept** (Deptno, Dname, Loc,DeptmanagerId)

   a) List the count of Employees and average salary of each department.

   b) List the employee name, department name and the salary of all the employees.

   c) Display the Employee name and the respective department manager name.

   d) Create a procedure to return the salary of the employee when Empid is given as input parameter.

3. Create the following tables with given attributes having appropriate data type and specify the necessary primary and foreign key constraints:

   Voter (VoterId, Votername, Gender, Boothid,Checkvote) *checkvote is 1(voted) or 0 (not voted)*

   Booth (Boothid, Location,BIncharge)

   a) (i)List the count of voters in each Booth (ii) List the count of Male voters voted.

   b) Display the overall count of voters voted in the election.

   c) Display the Boothid, Location and count of voters voted.

   d) Write a function to return the percentage of poll in a booth when boothid is given as input.

4. Create the following tables with given attributes having appropriate data type and specify the necessary primary and foreign key constraints:

   User (Userid, Name, Dept, Bookid, Accdate)

   Book (Bookid, Book_name, Author, Publication, Price)

   a) List the name of the user who had accessed the costliest book.

   b) List the userid and count of books accessed by the user.

   c) List the books published by Wiley publisher.

d) Write a PL/PGSQL program to print the details of the book when Bookid is given as input.

5. Create the following tables with given attributes having appropriate data type and specify the necessary primary and foreign key constraints:

Customer (Custid, Custname, Addr, phno,panno)

Loan (Loanid, Amount, Interest, Custid)

Account (Acctno, Accbal, Custid)

a. Display the Account balance amount of a particular customer "ARUN"

b. Update the interest with 1% when Accbal of the Custid >50% of Loan Amount

c. Create a View with Accbal and Loan Amount of all Customers

d. Create a trigger that checks for minimum balance in the account.

6. Create the following tables with given attributes having appropriate data type and specify the necessary primary and foreign key constraints:

Customer (Custid, Custname, phno,pan,DOB)

HomeLoan (HLoanid, Amount, Custid) VehicleLoan (VLoanid, Amount, Custid)

a) List the Custid of the customers who have both homeloan and vehicle loan.

b) List the Custid of the customers who donot have any loan.

c) Create a view with customerid, Customer name and total loan amount (HomeLoan and VehicleLoan)

d) Write a trigger which displays the Homeloan details whenever the values are inserted in the respective table.

7. Create two tables as shown below and execute the queries as follows:

STUD1 Table:

REG_NO	NAME	MARK_1	MARK_2	RESULT
101	AAA	89	80	PASS
102	BBB	70	75	PASS
103	CCC	65	70	PASS
104	DDD	95	100	PASS

STUD2 Table:

NAME	GRADE
AAA	S

BBB	A
CCC	B
DDD	S

Q1. Display the Student name and grade by implementing a left outer join

Q2. Display the Student name, register no, and result by implementing a right outer join.

Q3. Display the Student name register no by implementing a full outer join.

Q4. Create a simple procedure that displays the string 'Hello World!

8. Perform the following operations with passenger table

a) Display unique PNR_NO of all passengers

b) Display all the names of male passengers.

c) Display the ticket numbers and names of all the passengers.

d) Find the ticket numbers of the passengers whose name start with ‘S’ and ends with ‘A’.

e) Find the names of Passengers whose age is between 40 and 60.

f) Display all the passengers names beginning with ‘E’.

g) Display the sorted list of Passengers names

9. (a) Create a table Bank (acc_no, name, balance,branch) and insert records into the table.Write a PL/ PSQL code block to find reverse of a number.

(b) Delete all the account tuples in the ‘Delhi’ branch.

(c) Display all the Customer names whose come from either Mumbai or Hydrabad

10. Update, Delete & Retrieval operation using SQL

- Modify the balance attribute alone such that it decreases the amount by 10% for the account table
- Delete all the account tuples in the ‘Delhi’ branch.
- Delete all loans with loan amounts between 10000 to 20000.
- Find the names of all branches in the loan relation.
- Display all the Customer names whose come from either Mumbai or Hydrabad

- Find all loan numbers for loans made at the 'Adyar' branch with loan amount greater than 50000.
- Find loan numbers of those loans with loan amount between 10000 and 20000.
- Display the customer name in alphabetical order
- Display all the customer names ordered by customer city
- Give a count of how many account holds are in each branch

11. Create the Book database and do the following:
book(book_name,author_name,price,quantity).
    a. Write a query to update the quantity by double in the table book.
    b. List all the book_name whose price is greater than those of book named "Database for
    c. Dummies"
    d. Retrieve the list of author_name whose first letter is 'a' along with the book_name and price.
    e. Write a PL/PGSQL Procedure to find the total number of books of same author.

12. Create the following tables with given attributes having appropriate data type and specify the necessary primary and foreign key constraints: **Marks**(Regno,Name , Dept, Subj1,Subj2,Subj3)
    a) Add a column Total in student table and update the Total field with the sum of 3 subject Marks.
    b) Find the second maximum total in the table.
    c) Display the name of the student with maximum total.
    d) Write a PL/PGSQL program to display the report sheet of the students using regno

13. Write the Query statement for the following:
    a. Return the login's user name.
    b. Calculate your age using PL/PGSQL in built function with DOB.
    c. Create a table with a field and use a sequence to insert values from 1 t0 50 into the field.
    d. Create a **Student** table (Regno, name, dept) and populate with data.
    e. Create a view for CSE dept with the details of students of CSE dept.
    f. Write a PL/PGSQL program to find the details of the student when regno is given as input.

14. Create the following tables with the mapping given below. **stu_details** (reg_no, stu_name, DOB, address, city) **mark_details** (reg_no, mark1, mark2, mark3, total)
    (a) Alter the table mark_details to add a column average with data type as long.
    (b) Display the months between the DOB and till date.

(c) Using alter command drop the column address from the table stu_details.

(d) Write a PL/PGSQL program to find the sum & average marks of all the student using procedures.

15. Create the following tables with the mapping given below.

Employee (Empno, Ename, Job, MgrId, DoB, DoJ, Sal, Comm, Deptno)

Department (Dname, Deptno, Dloc)

(a) Display the Emp no, name, salary and experience of each employee ordered by salary (highest to lowest)

(b) List the names of the employee working for "Marketing" Department. (c) List the names of the employees born in the current month.

(d) Write a PL/PGSQL function to display the details of the employee when Employee no given as input.

16. Create a table 'Employee' with the following details(Column level constraints)

Empno	Number(5)	Primary key	
Empname	Varchar2(20)	Designation	Varchar2(10)
Date_of_join	Date		
Salary	Number(9,2)	NOT NULL	
Depno	Number(2)	Foreign key(Reference 'Department' table)	

Create another table called 'Department' with the following structure(Column level constraints)

Depno	Number(2)	Primary key
Depname	Varchar2(15)	
Deplocation	Varchar2(10)	

a) Display the number of employees in each department with the department numbers in b) descending order

c) List the departments where there are employees functioning

d) List the employees whose depno is not equal to '01'

e) Add the field total to table student

f) Insert 5 records into the table. Don't input values for total field and calculate total field.

g) List the employee names and their department names

17. (a) Create the student database with the following tables and do the following: assessment(reg_no,name, mark1, mark2, mark3, total)

dept_details (dept_no, dept_name, location).

a) Write a PL/PGSQL function to print the grade of the Student. Obtain student mark as input from the main program. Check for the following condition: if the input mark ranges 91-100 then Grade A, 81-90 then Grade B, 71-80 then Grade C, 60-70 then Grade D and <60 Grade E.

b) Write a PL/PGSQL Trigger to verify the data before insertion on the assessment table (no null values allowed).

c) Write a PL/PGSQL function to count the number of students in a particular department.

18. (a)Write a PL/PGSQL program to print the payslip of the employee. Create a table **Employee** (Id, Name, Basicpay, DOB,Dept).Obtain Employeeid as input from the main program. (Basic pay +DA+HRA-TAX-DED). Assume the Allowances and Deduction %.

(b) Write a PL/PGSQL program to generate Fibonacci series upto n terms

19. (a)Create a table **Bank** (acc_no, name, balance,branch) and insert records into the table. Write a PL/PGSQL program for the Bank table to notify the user if the account balance is less than 500. Obtain account no as input.

(b) Delete all the account tuples in the 'Delhi' branch.

(c) Display all the Customer names whose come from either Mumbai or Hydrabad

20. (a) Create the table **Book** (acc_no, username, bookno, days) and insert few records into the table. Write a PL/PGSQL Program to calculate the fine for library book (Rs 5 /day). (Hint: fine =days*5). Obtain account no as input.

(b) Write a PL/ PSQL code block to find greatest of three numbers.

(c) List the number of books taken by a user whose name starts with 'J'

(d) Write a query to display the user name,account number for the users whose accounts were created after 15th of any month.