**DBMS LAB**

**Assignment No. 4**

Q1: Prepare a database for an e-commerce company containing following entities (Also draw an ER diagram):-

Supplier, Customer, Product, Category, Orderr and Payment

And, Answer the queries that follow:-

1. Give a list of all customer whose name begins with ‘P’?

**Select \* from Customer where cname like ’P%’;**

1. Display the names of suppliers who provide kitchen articles?

**Select sname,pid from Supplier where pid IN(select pid from category where article=’Kitchen’);**

1. What was the total sale of the company in the month of March 2018?

**Select sum(amount) from Orderr where odate like ‘%-Mar-18’;**

1. Find out each customer’s minimum and maximum orderr?

**Select (select cname from customer c where c.cnum=o.cnum)”Customer”,min(amount),max(amount) from orderr o group by cnum;**

1. What were the top selling products along with their categories during the sale of JUNE-AUGUST 2018?

**Select pid,(select article from category c where c.pid=o.pid)"Article",qty from orderr o where odate between '1-Jun-18'and'31-Aug-18' group by pid,qty having sum(qty)>(select avg(qty) from orderr) ;**

1. Display a list of customer who bought for more than Rs. 10,000 in a month?

**Select (select cname from customer c where c.cnum=o.cnum)”Customer” ,sum(amount) from orderr group by cnum having sum(amount)>10000;**

1. List all orderrs with their orderr details (name of buyer, pmode of payment, products bought).

**select o.\*,(select cname from customer where o.cnum=customer.cnum)"Buyer",(select pname from product where o.pid=product.pid)"Product",(select pmode from payment where o.onum=payment.onum)"Pmode" from orderr o;**

h) List all customer according to their state/union territory of their delivery address.

**Select (select cname from customer c where o.cnum=c.cnum) "Customer" ,dplace from orderr o order by dplace;**

i)Create a view containing the names of all the products and their categories.

**Create view view\_pc As select pname,(select article from category where category.pid=product.pid)"Category" from product;**

select \* from view\_pc;

j) Find out each customer highest and least chosen pmode of payment.

**Select max(pmode),min(pmode),cname from (Select cnum,onum,(select pmode from payment p where o.onum=p.onum) as pmode,(select cname from customer c where c.cnum=o.cnum)as cname from orderr o) group by cnum,cname;**

k) List the name of all suppliers who sell more than two categories of products.

**Select sname from (Select snum,(select sname from supplier s where s.snum=o.snum) as sname,pid,(select article from category c where c.pid=o.pid) as article from orderr o) group by sname having count(distinct(article))>2;**

l) Prepare a list of least selling products for the last year.

**Select (select pname from product p where p.pid=o.pid)"Least\_SP" from orderr o where odate like '%18' group by pid having sum(qty)>(select avg(qty) from orderr);**

m) Select the total amount in orderrs for each customer for whom this total is greater than the amount of the largest orderr in the table.

**Select sum(amount),cnum from orderr group by cnum having sum(amount)>(select max(amount) from orderr);**

n) Find out which customer produce largest and smallest orderrs on each date.

**Select min(amount),max(amount),odate from orderr group by odate;**

Q2: Write a PL/SQL code to check whether a number is prime or not.

Q3: Write a PL/SQL code to check whether a number is palindrome or not.

Q4: Write a PL/SQL code to compute factorial of a given number.

Q5: Write a PL/SQL code to print Fibonacci series.

Q6: Write a PL/SQL code to display sum of first ten natural numbers.

Q7: Write a PL/SQL code to compute area and perimeter of a circle.

Q8: Write a PL/SQL code to find the greatest among three numbers.

Q9: Write a PL/SQL code to display whether a number is even or odd.

Q10: Write a PL-SQL script to compare three given numbers and display them in ascending orderr.

Q11: Create a table ‘Emp’ with attributes ‘ename’,’ecity’,’salary’,’enumber’,’eaddress’,’depttname’.

Create another table ‘Company’ with attributes ‘cname’, ccity’,’empnumber’ in the database ‘Employee’

Execute the following queries on above tables:-

* Create a view having ename and ecity.
* In the above view change the ecity to ‘Delhi’ where ename is ‘John’.
* Create a view having attributes from both the tables.
* Update the above view and increase the salary of all employees of IT department by Rs.1000.

Now solve the following queries using PL/SQL:-

* Calculate the average salary from table ‘Emp’ and print increase the salary if the average salary is less than 10,000.
* Print the deptno from the employee table using the case statement if the deptname is ‘Technical’ then deptno is 1, if the deptname is ‘HR’ then the deptno is 2 else deptno is 3.