...COMPUTER SCIENCE PRATICAL...

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NAME – Bhuvi Ranga

ROLL NO.- 20191209

DEPARTMENT - STATISTICS

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Ques 1.

mysql> create database du\_library;

mysql> create table LibraryBooks(

-> Accession\_Number decimal(10,5) primary key,

-> Title varchar(30) not null,

-> Author varchar(50) not null,

-> Department varchar(50) not null,

-> Purchase\_Date date not null,

-> Price decimal(7,2) not null);

mysql> Create table IssuedBooks(

-> Accession\_Number decimal(10,5) not null,

-> Borrower Varchar(30) not null

-> foreign key (Accession\_Number) references LibraryBooks(Accession\_Number));

(a)Primary Key- Accession\_Number in table LibraryBooks

Foreign Key- Accession\_Number in table IssuedBooks

mysql> insert into LibraryBooks values(51235.56,"Introduction to Matrices","S.C. Gupta","Statistics",'1997-01-12',105.00);

mysql> insert into LibraryBooks values(21826.46,"Database System Concepts","Sumitra Arora","CS",'2003/05/30',620.00);

mysql> insert into LibraryBooks values(121.4345,"Fundamental of Statistics","V.K. Kapoor","Statistics",'2002/03/31',550.00);

mysql> insert into LibraryBooks values(76389.4647,"Play with Python","Navathe","CS",'2002/06/21',499.00);

mysql> insert into LibraryBooks values(6737.84,"Discrete Maths","M.L.Aggrawal","Mathematics",'1999/08/04',450.00);

mysql> insert into IssuedBooks values( 21826.46,"Vinay Kumar Singh");

mysql> insert into IssuedBooks values( 121.4345,"Vasav Choudhary");

mysql> insert into IssuedBooks values( 6737.84,"Utkarsh mathur");

mysql> insert into IssuedBooks values( 21826.46,"Aryan raghuvanshi");

mysql> insert into IssuedBooks values( 76389.4647,"Jatin Choubey");

(b) mysql> set foreign\_key\_checks=Off;

mysql> delete from librarybooks where accession\_number=21826.46;

mysql> delete from librarybooks where title="Database System Concepts";

mysql> set foreign\_key\_checks=on;

(c) mysql> update librarybooks set department="CS" where title="discrete maths";

(d) mysql> select Title from librarybooks where department="CS";

(e) mysql> select Title from librarybooks where department="CS" and author="navathe";

(f) mysql> select Title from librarybooks l, issuedbooks i where l.accession\_number=i.accession\_number and l.department="CS";

(g) mysql> select Title from librarybooks where price<500 and purchase\_date between '1999/01/01' and '2004/01/01';

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Ques 2.

mysql> create database cs\_student;

mysql> create table personal\_informartion(

-> Roll\_no int(10) primary key,

-> Name char(30) not null,

-> DOB date not null,

-> Address varchar(70) not null,

-> Marks\_in\_12th int(2) not null,

-> Phone\_number Varchar(10) not null);

mysql> create table Paper\_Details(

-> Paper\_Code int(4) primary key,

-> NameofPaper char(30) unique);

mysql> create table Academic\_Details(

-> Roll\_no int(10) primary key,

-> Paper\_code int(4) not null,

-> Attendence int(3) not null,

-> Marks int(3) not null,

-> foreign key(roll\_no) references personal\_informartion(roll\_no),

-> foreign key(paper\_code) references Paper\_details(paper\_code));

(a) Primary key - Roll\_no in table personal\_informartion

Paper\_code in table Paper\_details

Foreign key - Roll\_no in table Academic\_Details

Paper\_code in table Academic\_Details

mysql> insert into personal\_informartion values(1240,"Vinay Kumar Singh",'2001-01-04',"UP",91,9102829875);

mysql> insert into personal\_informartion values(1233,"Rohit Tiwari",'2001-04-29',"Uttarakhand",89,9748483743);

mysql> insert into personal\_informartion values(1204,"Ankit",'2000-03-19',"Delhi",94,9837643368);

mysql> insert into personal\_informartion values(1225,"Mohammad Mujtaba",'2001-09-21',"Uttar Pradesh",97,9637453672);

mysql> insert into personal\_informartion values(1223,"Likhit Giri",'2001-11-09',"Delhi",92,9764563726);

mysql> insert into paper\_details value(1,"Descriptive Statistics");

mysql> insert into paper\_details value(2,"Environmental Studies");

mysql> insert into paper\_details value(3,"Algebra");

mysql> insert into paper\_details value(4,"Introduction to Matrices");

mysql> insert into paper\_details value(5,"Database management system");

mysql> insert into Academic\_details values(1240,2,80,70);

mysql> insert into Academic\_details values(1233,2,70,90);

mysql> insert into Academic\_details values(1204,2,65,91);

mysql> insert into Academic\_details values(1225,2,65,91);

mysql> insert into Academic\_details values(1223,1,75,65);

(b) mysql> select pd.paper\_code, pd.nameofpaper, pi.name from paper\_details as pd, personal\_informartion as pi where paper\_code=2 and pi.roll\_no in(select roll\_no from academic\_details where paper\_code=2 and attendence>75 and marks>60);

(c) mysql> select name from personal\_informartion as pi, academic\_details as ad where pi.roll\_no=ad.roll\_no and ad.marks>60 and ad.paper\_code=1;

(d) mysql> select pi.name, ad.attendence, ad.marks from personal\_informartion as pi, academic\_details as ad where pi.roll\_no=ad.roll\_no;

(e) mysql> select name from personal\_informartion as pi, academic\_details as ad where pi.roll\_no=ad.roll\_no and pi.roll\_no=(select roll\_no from academic\_details where marks=(select max(marks) from academic\_details));

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Ques 3.

mysql> create database twowheeler;

mysql> create table customer(

-> CustId varchar(20) primary key,

-> email varchar(50) not null,

-> Name char(30) not null,

-> phone varchar(10) unique,

-> ReferrerID varchar(20));

mysql> create table BicycleModel(

-> ModelNo varchar(10) primary key,

-> Manufacturer Char(20) not null,

-> Style Varchar(20) not null);

mysql> create table Bicycle(

-> BicycleId varchar(20) primary key,

-> DatePurchased date not null,

-> Color Char(10) not null,

-> CustId varchar(20) not null,

-> ModelNo varchar(10) not null,

-> foreign key(CustId) references customer(CustId),

-> foreign key(ModelNo) references BicycleModel(ModelNo));

mysql> create table Service(

-> StartDate date not null,

-> BicycleId varchar(20) not null,

-> EndDate date not null,

-> Foreign key(BicycleId) references Bicycle(BicycleId));

(a) Primary Key - CustId in table Customer

ModelNo in table BicycleModel

BicycleId in table Bicycle

Foreign Key- CustId in table Bicycle

ModelNo in table Bicycle

BicycleId in table Service

mysql> insert into customer values(1001,"vks1245@gmail.com","Vinay Singh",9873645321,"C1");

mysql> insert into customer values(1002,"kk4373@gmail.com","Krishna Kumar",8373876327,"A2");

mysql> insert into customer values(1003,"ravishkumar8653@gmail.com"," Ravish Kumar",9375472814,"C3");

mysql> insert into customer values(1004,"sumanss7368@gmail.com","Suman Singh",8293765392,"B7");

mysql> insert into customer values(1005,"reenasingh3753@gmail.com","Reena Singh",9375428765,"C5");

mysql> insert into bicyclemodel values("M101","Honda","Activa");

mysql> insert into bicyclemodel values("M102","Hero","Mastero");

mysql> insert into bicyclemodel values("M103","Bajaj","Discover");

mysql> insert into bicyclemodel values("M104","Hero","Splendor");

mysql> insert into bicyclemodel values("M105","Yamaha","FZ");

mysql> insert into bicycle values("B501",'2019-02-05',"Red","1002","M101");

mysql> insert into bicycle values("B502",'2018-05-22',"Silver","1001","M105");

mysql> insert into bicycle values("B503",'2020-01-03',"Red","1004","M104");

mysql> insert into bicycle values("B504",'2019-04-17',"blue","1003","M103");

mysql> insert into bicycle values("B505",'2020-02-08',"black","1002","M102");

mysql> insert into service values('2019-09-09','B505',"2019-09-12");

mysql> insert into service values('2018-10-10','B502','2018-10-12');

mysql> insert into service values('2018-04-24','B502','2019-04-26');

mysql> insert into service values('2019-05-17','B501','2019-05-19');

mysql> insert into service values('2020-01-18','B502','2020-01-20');

(b) mysql> Select \* from customer where custID in(Select custid from bicycle where modelno in(select Modelno from bicyclemodel where manufacturer="Honda"));

(c) mysql> Select \* from bicyclemodel where modelno in(select modelno from bicycle where custid in(select custid from customer where referrerId="C1"));

(d) mysql> select bm.manufacturer from bicycle as bi, bicyclemodel as bm where bi.modelno=bm.modelno and bi.color="red";

(e) mysql> select modelno from bicycle where bicycleid in(select distinct bicycleid from service);

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Ques 4.

mysql> create database employee\_details;

mysql> use employee\_details;

mysql> create table employee(

-> Person\_name char(30) primary key,

-> Street char(30) not null,

-> city char(15) not null);

mysql> create table Company(

-> Company\_name varchar(30) Primary key,

-> City char(15));

mysql> create table Works(

-> Person\_name char(30),

-> Company\_name varchar(30),

-> Salary decimal(10,2),

-> foreign key(Person\_name) references employee(Person\_name),

-> foreign key(Company\_name) references Company(Company\_name));

mysql> Create table manages(

-> Person\_name char(30),

-> Manager\_name char(30),

-> foreign key(Person\_name) references employee(Person\_name));

mysql> insert into employee values("Vinay","23/34 B block","Gorakhpur");

mysql> insert into employee values("Gaurav","454/4 V block","Lucknow");

mysql> insert into employee values("Rahul","65/6 A block","Delhi");

mysql> insert into employee values("Jatin","87/2 D block","Noida");

mysql> insert into employee values("Garima","74/2 F block","Banglore");

mysql> insert into employee values("Suresh","54/2 G block","Lucknow");

mysql> insert into employee values("Kapil","347-5 A block","Noida");

mysql> insert into employee values("Pawan","65/8 V block","Gorakhpur");

mysql> insert into employee values("Nikhil","62/7 d block","Delhi");

mysql> insert into employee values("Nupur","91/8 C block","Banglore");

mysql> insert into company values("Samba Bank","Delhi");

mysql> insert into company values("NCB Bank","Gorakhpur");

mysql> insert into company values("Axis Bank","Noida");

mysql> insert into company values("SBI bank","Lucknow");

mysql> insert into company values("Kotak Bank","Banglore");

mysql> insert into works values("Vinay","Samba Bank", 20000);

mysql> insert into works values("Gaurav","NCB Bank",15000);

mysql> insert into works values("Rahul","Samba Bank",5000);

mysql> insert into works values("Jatin","SBI Bank",8000);

mysql> insert into works values("Garima","Axis Bank",10000);

mysql> insert into works values("Suresh","NCB Bank",20000);

mysql> insert into works values("Kapil","Kotak Bank",15000);

mysql> insert into works values("Pawan","Axis Bank",20000);

mysql> insert into works values("Nikhil","SBI Bank",12000);

mysql> insert into works values("Nupur","Kotak Bank",18000);

(a) Primary Key- Person\_name in table employee

Company\_name in table company

Foreign Key- Person\_name in table works

Company\_name in table works

Person\_name in table manages

(b) mysql> alter table employee add column email varchar(20);

(c) mysql> select distinct(manager\_name) from manages as m, works as w where m.person\_name=w.person\_name and (w.company\_name="Samba bank" or w.Company\_name="NCB Bank");

(d) mysql> select e.Person\_name, e.Street, e.City, w.salary from employee as e, works as w where e.person\_name=w.person\_name and w.company\_name="Samba Bank" and w.salary>10000;

(e) mysql> select e.person\_name from employee as e, works as w, company as c where e.person\_name=w.person\_name and e.city=c.city and w.company\_name=c.company\_name;

(f) mysql> select company\_name, max(salary), min(salary), avg(salary) from works group by company\_name;

(g) mysql> select company\_name, sum(salary), count(company\_name) as "number of employees" from works group by company\_name;

(h) mysql> select company\_name,max(salary) from works;

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Ques 5.

mysql> create database product;

mysql> use product;

mysql> create table suppliers(

-> Sno int(8) primary key,

-> Sname varchar(20) not null,

-> Status char(20) not null,

-> Scity char(30) not null);

mysql> create table Parts(

-> PNo int(8) primary key,

-> Pname varchar(20) not null,

-> Colour varchar(20) not null,

-> Weight int(4) not null,

-> City char(20) not null);

mysql> create table Project(

-> Jno int(8) Primary key,

-> Jname char(20) not null,

-> Jcity char(20) not null);

mysql> create table Shipment(

-> Sno varchar(20) not null,

-> Pno int(8) not null,

-> Jno int(8) not null,

-> Quantity int(8) not null,

-> foreign key(Sno) references suppliers(Sno),

-> foreign key(Pno) references Parts(Pno),

-> Foreign key(Jno) references Project(Jno));

mysql> insert into suppliers values("101","S1",30,"London");

mysql> insert into suppliers values("102","S2",19,"New York");

mysql> insert into suppliers values("103","S1",22,"Paris");

mysql> insert into suppliers values("104","S2",70,"Los Angeles");

mysql> insert into suppliers values("104","S2",70,"Los Angeles");

mysql> insert into parts values( "501","P1","Black",16,"Paris");

mysql> insert into parts values( "502","P2","Red",40,"London");

mysql> insert into parts values( "503","P3","Gray",20,"London");

mysql> insert into parts values( "503","P2","Green",60,"Singapore");

mysql> insert into parts values( "505","P2","Black",10,"New York");

mysql> insert into project values(1001,"J1","London");

mysql> insert into project values(1002,"J2","New York");

mysql> insert into project values(1003,"J3","New York");

mysql> insert into project values(1004,"J4","Singapore");

mysql> insert into project values(1005,"J4","Delhi");

mysql> insert into shipment values(101,504,1002,250);

mysql> insert into shipment values(103,505,1003,100);

mysql> insert into shipment values(105,502,1003,500);

mysql> insert into shipment values(101,503,1001,300);

mysql> insert into shipment values(102,501,1005,750);

mysql> insert into shipment values(101,501,1002,100);

(a) Primary Key- Sno in table Suppliers

Pno in table Parts

Jno in table Project

Foreign Key- Sno in table Shipment

Pno in table Shipment

Jno in table Shipment

(b) mysql> select Sno from suppliers where scity="Paris" and Status>20;

(c) mysql> Select \* from suppliers where Sno in(select Sno from shipment where Pno in(select Pno from parts where Pname="P2")) Order by sno;

(d) mysql> Select Sname from suppliers where Sno in(Select distinct sno from shipment where Pno in(select Pno from parts where Pname!="P2"));

(e) mysql> select s.Sno, s.Pno, s.Jno, s.Quantity, s.quantity\*p.weight as "Total\_shipment\_weight" from shipment as s, parts as p where s.pno=p.pno;

(f) mysql> Select \* from shipment where quantity between 300 and 750;

(g) mysql> select Pno from parts where weight>16 or pno in(select pno from shipment where sno in(select s.sno from shipment as s, suppliers as su where s.sno=su.sno and su.sname="S2"));

(h) mysql> select city from parts where colour="Red" and Pno in(select pno from shipment where quantity>5);

(i) mysql> select \* from parts where pno in(select Pno from shipment where sno in(select sno from suppliers where Scity="London"));

(j) mysql> select Pno from shipment where sno in(select sno from suppliers where scity="London") and Jno in(Select jno from project where Jcity="London");

(k) mysql> select count(distinct(Jno)) as "No. of Project Supplied by supplier S1" from shipment where sno in(select sno from suppliers where Sname="S1");

(l) mysql> select count(\*) from parts where Pno in(Select Pno from shipment where sno in(select Sno from suppliers where sname ="S1")) and Pname="P1";

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