1)Create the following tables and insert data into them

Sailors(sid,sname,rating,age)
Boats(bid,bname,colour)
Reserved(sid,bid,date_of_reservation)

Constraints are
Age>0
Sid begins with letter S
Bid begins with B

Foreign keys are
Reserved.sid references sailors
Reserved.bid references boat

Answer the following queries using SQL

a) Find the names of sailors whose name begins with A
b) Find the number of sailors who have reserved all boats
c) Find the average age of sailors who reserved Red boats

2)Create the following tables and insert data into them

Book Record

Field name	Type	Constraint
Book_no	Text	Primary key begins with B
Title	Text	
Cost	Real	>0

Author Record

Field name	Type	Constraint
Book_no	Text	Foreign key references book record table
Author_id	Text	Primary key
Author_name	Text	

User Record

Field name	Type	Constraint
User_id	Text	Primary key
Name	Text	
Category	Text	Values Teachers,Students

Circulation Record

Field name	Type	Constraint
User_id	Text	Foreign key references user record table
Book_no	Text	Foreign key references book record table
Issue date	date	
Return_date	date	

Create database package with procedures or functions to do the following

1.Find titles of all books where 'john' is the only author
2.Find the names of all user who haven't returned book costing above Rs. 500
3. Find the details of book which is issued before JAN 2010
4. Find the details of books whose cost is greater than the average cost of the books available in the table
5.Create triggers to do the following
a)insertion is possible in book record if the cost is grater than the average cost of books available in the table
b)deletion is possible from circulation record if the book is returned

3) Create the following tables and insert data into them

Students(sno,sname,birthdate,sex,college)
Departments(dno,dname,school)
Registrations(sno,dno,regdate)
Course(cno,dno,title,duration,credit,fee,supervisor)
Options(cno,sno,mark)

Constraints are
sno begins with S
dno begins with D
cno begins with C

Foreign keys are:
Registrations.sno reference student
Coursess.dno reference department
Optionss.cno reference Course
Options.sno reference student

Answer the following queries using SQL
1)Display the student number,name and gender of all students sorted by gender ascending
2)Display the unique names of departments in which no students have registered

3)Display the numbers and names of all students , together with department numbers of the departments in which they have registered, if any
4)Display course credit in ascending order and for each credit the average mark of students taking courses with that credit together with the number of students involved

4) Create the following tables and insert data into them

Students(sno,sname,birthdate,sex,college)
Departments(dno,dname,school)
Registrations(sno,dno,regdate)
Course(cno,dno,title,duration,credit,fee,supervisor)
Options(cno,sno,mark)

Constraints are
sno begins with S
dno begins with D
cno begins with C

Foreign keys are:
Registrations.sno reference student
Coursess.dno reference department
Optionss.cno reference Course
Options.sno reference student

Answer the following queries using SQL

1)Display for each female student her average mark, lowest and highest marks
2)Find the course titles offered by any of the following departments: History,Polotics,Physics having supervisor whose name begins with 'M'
3)Display the student number and name of students taking a course worth 3 credits in the department of Biology and born on 'March'
4)Write a trigger which allows the insertion of data in the student table if birth date is less than 1-4-1988

5)Create the following tables and insert data into them

Employee

Field name	Type	Constraint
E_id	Text	Primary key begins with E
ename	Text	
Date of joining	Date	
City	text	

Works

Field name	Type	Constraint
E_id	Text	Foreign key references employee table
Company_id	integer	Foreign key references company table
Sal	Real	>0

Company

Field name	Type	Constraint
company_id	integer	Primary key
Company_name	Text	
city	Text	

Manges

Field name	Type	Constraint
E_id	Text	Foreign key references employee table
M_id	Text	Foreign key references employee table

1)Find the details of coworkers of the employee with maximum salary
2)Find all employees who do not work for a specified company
3)Find the employees who earn more than employee of a specified company
4)Find the average salary of managers
5) Create trigger for works table such that updation is possible if new salary is greater than 25% of all salary

6)Create the following tables and insert data into them

Employee

Field name	Type	Constraint
E_id	Text	Primary key begins with E
Ename	Text	
Date of joining	Date	
City	text	

Works

Field name	Type	Constraint
E_id	Text	Foreign key references employee table
Company_id	integer	Foreign key references company table

Sal	Real	>0

Company

Field name	Type	Constraint
company_id	integer	Primary key
Company_name	Text	
City	Text	

Manges

Field name	Type	Constraint
E_id	Text	Foreign key references employee table
M_id	Text	Foreign key references employee table

1)Display the details of employees who stays in the same city as that of his manager
2)Fin =d the details of employee who salary is greater than the average salary of employees and who joined on ' March'
3)Find the details of employee who has service more than 10 years
4)Give all managers of a specific company a 10% raise unless the salary become greater than 25,000, in that case give only 3% raise
5)Create the following triggers

i)insertion is possible in employee table if city is 'Bombay'
ii)deletion is possible in employee table if an employee is not joined on March

7)Create the following tables and insert data into them

Person

Field name	Type	Constraint
driver_id	Integer	Primary key
Name	Text	
Address	text	
Salary	Real	>0

Car

Field name	Type	Constraint
License	integer	Primary key
Type	Text	Values are maruti,Toyota,ford
Year	Date	

Accident

Field name	Type	Constraint
Report_no	integer	Primary key

Date	date	
Location	Text	

Owns

Field name	Type	Constraint
driver_id	Integer	Foreign key references person table
License	integer	Foreign key references car table

participated

Field name	Type	Constraint
Driver_id	integer	Foreign key references persons
Report_no	integer	
Damage_amt	Real	>0

1)Find total no: of owners involved in accidents in 1999
2)Find no: of accidents in which cars belonging to 'john' where involved
3)Delete the 'maruti' belonging to John smith
4)update damage amount for the car with a specific license number in the accident with the given report number to Rs.3000

8)Create the following tables and insert data into them

menu

Field name	Type	Constraint
Dish_no	Integer	Primary key
Dish_desciption	Text	Coffee,tea,pizza,cake
price	Real	>0

Bill

Field name	Type	Constraint
Bill_no	integer	Primary key
Day	Date	
Table_no	Text	Begins with T
Waiter_no	Integer	
Total	real	Should be calculated

order

Field name	Type	Constraint
dish_no	integer	Foreign key references menu
Bill_no	integer	Foreign key references bill
Qty	Integer	>0

1)Find the number of bills in which both the items coffee and cake are present
2)Find the details of item which is not ordered on a particular day
3)Find the fast moving dish,display the details of it
4)Find the details of the fast moving item ordered by a particular waiter

5) Create triggers for the following
a)increase the price of an item by 20% if total qty sold is greater than 25
b)deletion is possible from the bill if the bill date is on May

9)Create the following tables and insert data into them

employee

Field name	Type	Constraint
emp_no	Integer	Primary key
Emp_name	Text	
dob	Date	
Salary	Real	>0
Sex	Text	Values M or F

Project

Field name	Type	Constraint
project_no	Text	Primary key begins with P
Project_name	Text	Values P1,P2,P3,P4,P5
Dept	Text	Values CSE,MECH,CIVIL,EE,TEL

workon

Field name	Type	Constraint
emp_no	integer	Foreign key references employee
project_no	text	Foreign key references project
hours	Integer	>0

1)Find the Details of employees who is not allocated a project
2)Find the maximum salary of employee working in CSE department
3)Find the details of employees working ina project in which employee SAM is not working
4)Find the department details of employee with maximum salary

5) Create triggers for the following
a)updation is possible in project table if department is MECH
b)deletion is possible from employee table if DOB is before 1955