DBMS ASSIGNMENT 1

1. Explain Database, DBMS, and Metadata.
2. Explain different types of Databases.
3. What are the advantages of DBMS?
4. Explain the DB System environment.
5. List the limitations/disadvantages of DBMS.
6. What are the problems with File system data management?
7. List and explain the functions and capabilities of DBMS.
8. Explain in detail the components of the DB system environment.
9. List and explain various DML, and DDL commands in SQL.
10. List and explain SQL Logical Operators.
11. Explain Special Operators.
12. What is the use of foreign key constraint with an example

DBMS ASSIGNMENT 2

1. Describe about Data Models and explain E-R model.
2. Define Instance and Domain?
3. What is an Entity? Explain different type of Entities.
4. What is an Attribute? Explain different types of Attributes.
5. Explain Recursive Relationship with example.
6. Explain Degree of Relationship and its types
7. What are the basic constructs of ER model?
8. Distinguish between simple and composite attributes.
9. Explain Order by, Group by and Having Clauses with example.
10. What are Views in SQL? Give an example
11. Explain Aggregate functions with examples
12. Explain in brief about Subqueries and Correlated queries.
13. What is a Join? Discuss about various joins used in SQL.
14. List and explain SQL Relational Set Operators.
15. What is the use of DISTINCT keyword in SQL

DBMS ASSIGNMENT 3

1. List out Codd's Relational Database rules.
2. Explain 1NF, 2NF. Database Management System
3. Explain 3NF and BCNF
 4. What is Primary Key? Explain some desirable Primary Key characteristics.
5. Explain the usage of the Composite Primary key with an example.
6. What is Normalization? Explain it.
7. What is Denormalization?
8. Define Functional Dependency.
9. Define the term Data Dictionary.
10. Define data redundancy

DBMS ASSIGNMENT 4

(MongoDB)

1. What are NoSQL databases?
2. What are the different types of NoSQL databases?
3. What kind of NoSQL database MongoDB is?
4. Which are the most important features of MongoDB?
5. What is a Namespace in MongoDB?
6. Which all languages can be used with MongoDB?
7. Compare SQL databases and MongoDB at a high level.How is MongoDB better than other SQL databases?
8. Compare MongoDB and CouchDB at high level.Does MongoDB support foreign key constraints?
9. How can you achieve primary key - foreign key relationships in MongoDB?

New_Assignment_ON_SQL

Set A:

Employee (Empid-primary key)

Empid	EmpName	Department	ContactNo	EmailId	EmpHeadId
101	Isha	E-101	1234567890	isha@gmail.com	105
102	Priya	E-104	1234567890	priya@yahoo.com	103
103	Neha	E-101	1234567890	neha@gmail.com	101
104	Rahul	E-102	1234567890	rahul@yahoo.com	105
105	Abhishek	E-101	1234567890	abhishek@gmail.com	102

EmpDept(Primary Key- DeptID, Foreign key-DeptHead, references Empid)

DeptId	DeptName	Dept_off	DeptHead
E-101	HR	Monday	105
E-102	Development	Tuesday	101
E-103	Hous Keeping	Saturday	103
E-104	Sales	Sunday	104
E-105	Purchage	Tuesday	104

EmpSalary(EmpId foreign key)

EmpId	Salary	IsPermanent
101	2000	Yes
102	10000	Yes
103	5000	No
104	1900	Yes
105	2300	No

Project(Primary key- ProjectID)

ProjectId	Duration
p-1	23
p-2	15
p-3	45
p-4	2
p-5	30

Country(Primary key-Cid)

cid	cname
c-1	India
c-2	USA
c-3	China
c-4	Pakistan

c-5	Russia

ClientTable(Primary key ClientId, Foreign Key Cid)

ClientId	ClientName	cid
cl-1	ABC Group	c-1
cl-2	PQR	c-1
cl-3	XYZ	c-2
cl-4	tech altum	c-3
cl-5	mnp	c-5

EmpProject(empid int foreign key references employee(empid), projectid varchar(50) foreign key references project(projectid),

EmpId	ProjectId	ClientID	StartYear	EndYear
101	p-1	Cl-1	2010	2010
102	p-2	Cl-2	2010	2012
103	p-1	Cl-3	2013	
104	p-4	Cl-1	2014	2015
105	p-4	Cl-5	2015	

Queries:

1. Select the detail of the employee whose name start with P.

2. How many permanent candidate take salary more than 5000.

3. Select the detail of employee whose emailId is in gmail.

4. Select the details of the employee who work either for department E-104 or E-102.

5. What is the department name for DeptID E-102?

6. What is total salarythat is paid to permanent employees?

7. List name of all employees whose name ends with a.

8. List the number of department of employees in each project.

9. How many project started in year 2010.

10. How many project started and finished in the same year.

11. select the name of the employee whose name's 3rd charactor is 'h'.

12. Select the department name of the company which is assigned to the employee whose employee id is grater 103.

13. Select the name of the employee who is working under Abhishek.

14. Select the name of the employee who is department head of HR.

15. Select the name of the employee head who is permanent.

16. Select the name and email of the Dept Head who is not Permanent.

17. Select the employee whose department off is Monday

18. Select the Indian clients details.

select the details of all employees working in the development department.

19. Show the details of 2nd highest salaried person.

Set B:

Create execute the next set of questions

Supplier(Sid , Sname, Address)

Parts(Pid, Pname, Color)

Catalog(Pid,Sid,Cost)

1. Find name of supplier who supply some green part
2. Find name of supplier who supply some red or green part
3. Find the sid of supplier who supply some red or green part or are at'21 Rohini Delhi'
4. Find the name of the supplier who supply some red or some green parts'
5. Find sid's of suppliers who supply every green part.
6. Find the pid's of parts supplied by at least two different suppliers.

Set C:

Learn and implement basic concepts of NoSQL and MongoDB