

Assignment 01

Part A - MCQs

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Course - MCA
Subject - Advanced DBMS Lab
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- ① (b) Table Data
- ② (d) Select
- ③ (a) char
- ④ (a) create table employee (name char(20), EmpID varchar2(10));
- ⑤ (c) insert into <table name> values (value1, value2, value3);
- ⑥ (b) describe <tablename>
- ⑦ (d) uniqueness and Not Null
- ⑧ (a) true
- ⑨ (c) % and _
- ⑩ (c) same number of columns with same data types
- ⑪ (b) inner joins
- ⑫ (c) hello
- ⑬ (b) temporary table with one row one column
- ⑭ (a) 8
- ⑮ (a) 27
- ⑯ (c) DPL
- ⑰ (a) Create
- ⑱ (b) False
- ⑲ (b) select * from employee where empname = 'Ramesh' or empname = 'Dinesh'
- ⑳ (d) support of multiple interfaces

Part B) Subjective Questions

Ques①

(a) DBMS (Database Management Systems) manage databases without considering the relationship of the data. It provides an interface to interact with the database. Relational Database Management Systems are type of DBMS that manage relational data stored in a relational database. It organizes data in rows and tables and establishes the relationship between them using keys.

(b) 5 Good rules

Rule 0 (The foundation rule) : RDBMS should manage data purely using relational capabilities.

Rule 1 (The Information Rule) : All info of database should be stored as value in a table

Rule 2 (The guaranteed access rule) Each atomic value should be accessible by using a combination of table name, primary key value and column name.

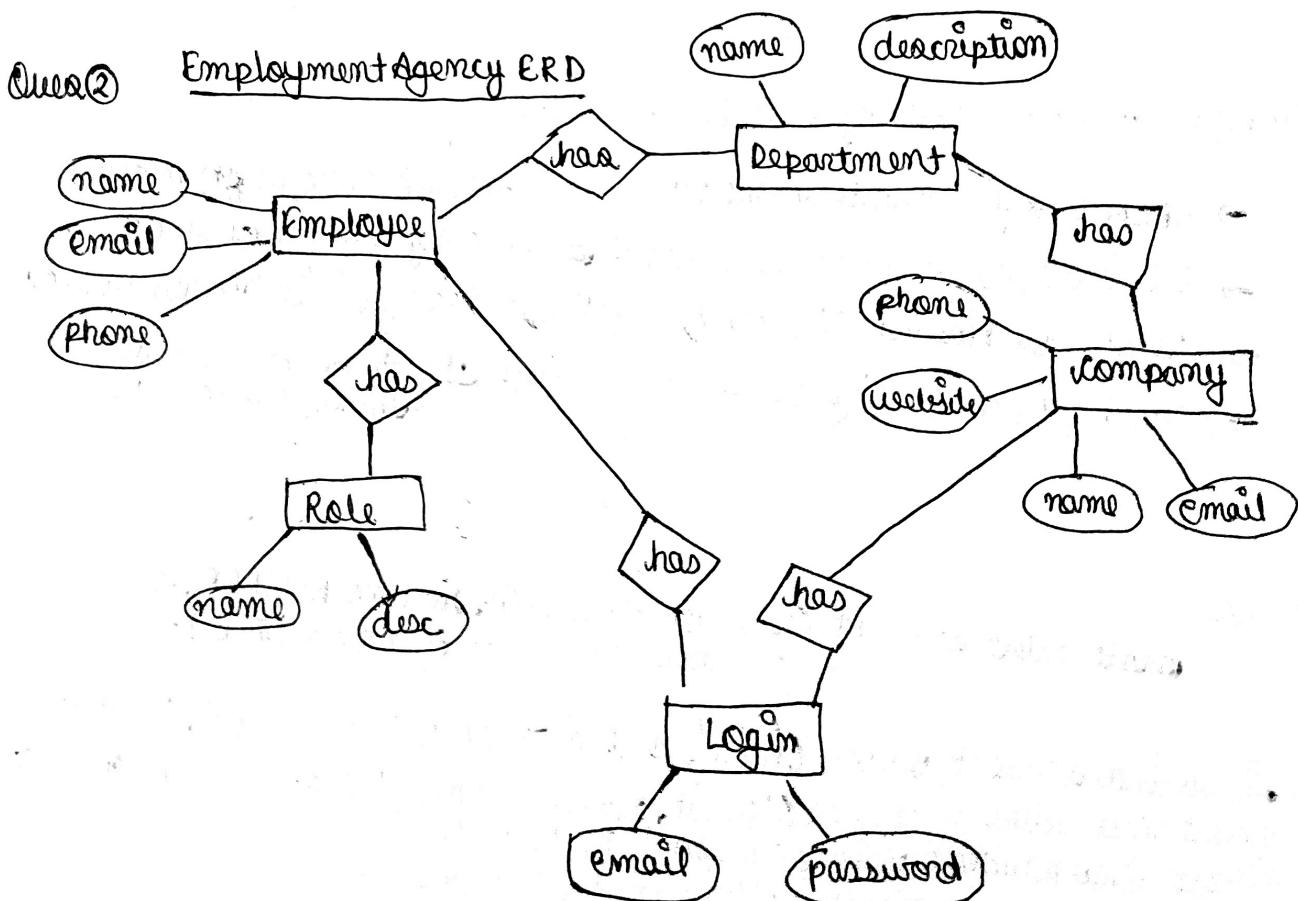
Rule 3 (Systematic treatment of Null values) Null values should be supported and treated systematically & uniformly in the system, distinct from zeroes, empty strings & default values.

Rule 4 (Dynamic online catalog based on the relational model) The database schema based on metadata, must be stored in database and be accessible to authorized users.

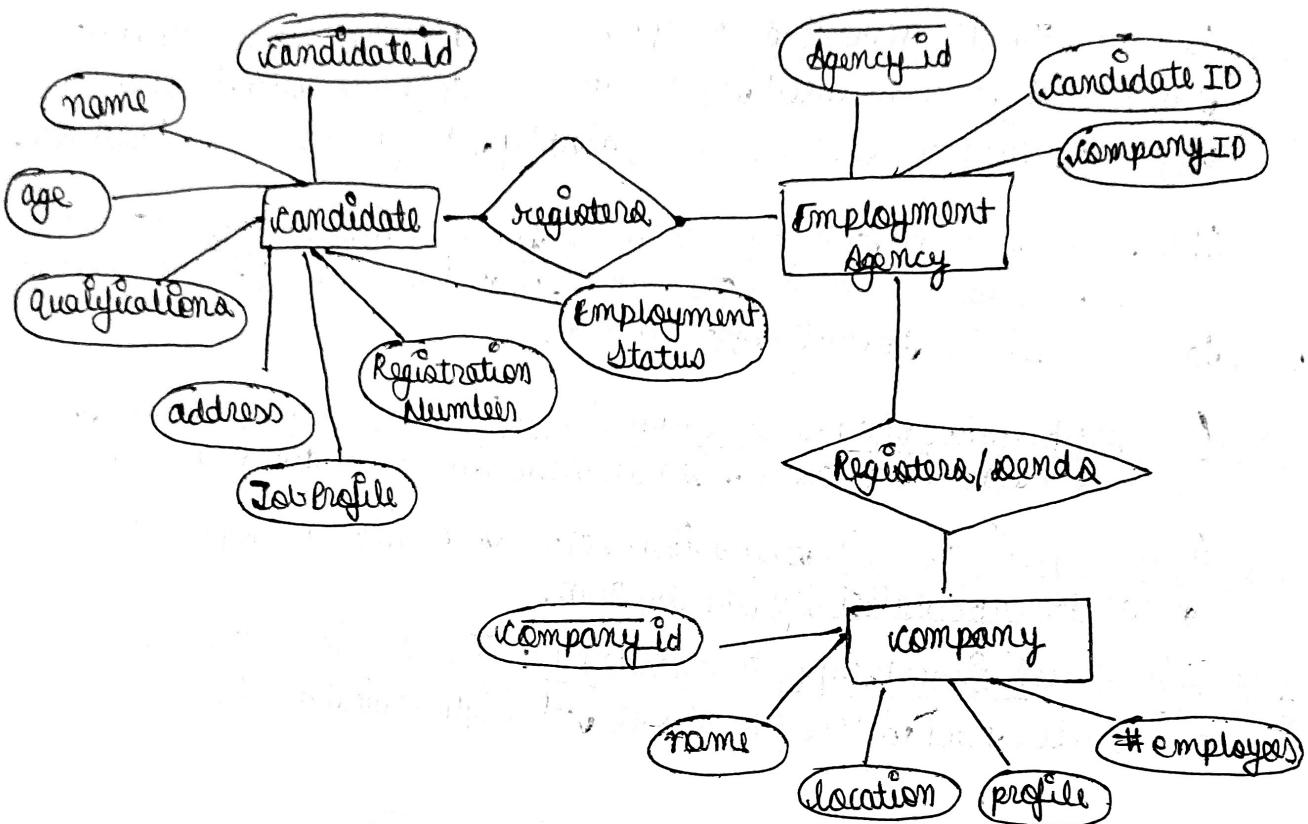
Rule 5 (Comprehensive data - sub language rule): The database schema, including the metadata should also be stored as a relational table.

Rule 6 (View updating rule) Any view that is theoretically updatable must be updatable by the system.

Rule 7 High-level insert, update and delete: The system must support insert, update, and delete operations at high logical level.



~~QUESTION~~ for the given registration process



Ques③ various forms of select commands.

- SELECT * from table_name; # select all columns & rows from table
- Select c1, c2 from table_name; # select only column c1 & c2
- Select ~~c1~~ distinct c1 from table; # select only distinct values from c1
- Select c1, count(*) from table groupby c1; # select the values and their group count.

Ques④

create table student (name varchar(50), roll_no NUMBER, course varchar(50), date_of_admn DATE);

insert into student values ('Amit', 1, 'BCA' TO_DATE('12/July/24', 'DD/MON/YY'));
 insert into student values ('Sumit', 2, null, TO_DATE('21/May/24', 'DD/MON/YY'));
 insert into student values ('Raghav', 3, NULL, NULL);
 insert into student values ('Suman', 4, 'BCA', null);

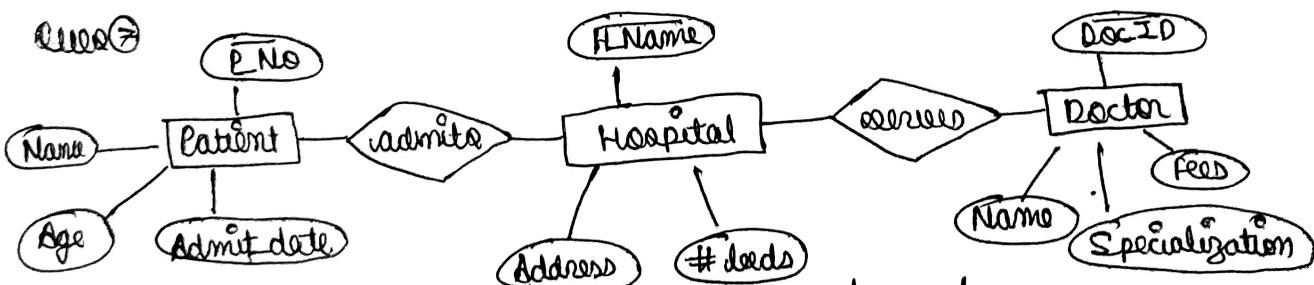
- (a) select * from student ;
- (b) select * from student where course is null ;
- (c) select name from student where rollno = 2 ;
- (d) delete from student ;

Ques 5

- (a) Select Name from student UNION select fac_Name from faculty ;
- (b) Select f.Fac_Name from faculty f JOIN student s ON f.ST_Roll_No = s.Roll_Number WHERE s.Roll_Number = 4 ;
- (c) Select Address from student where Name = 'Danish' ;
- (d) Select Subject from faculty WHERE ST_Roll_No = (select Roll_Number from student WHERE Name = 'Prakash') ;
- (e) Alter table student Add constraint fk_Roll_Number FOREIGN KEY (Roll_Number) REFERENCES Faculty (ST_Roll_Number) ;

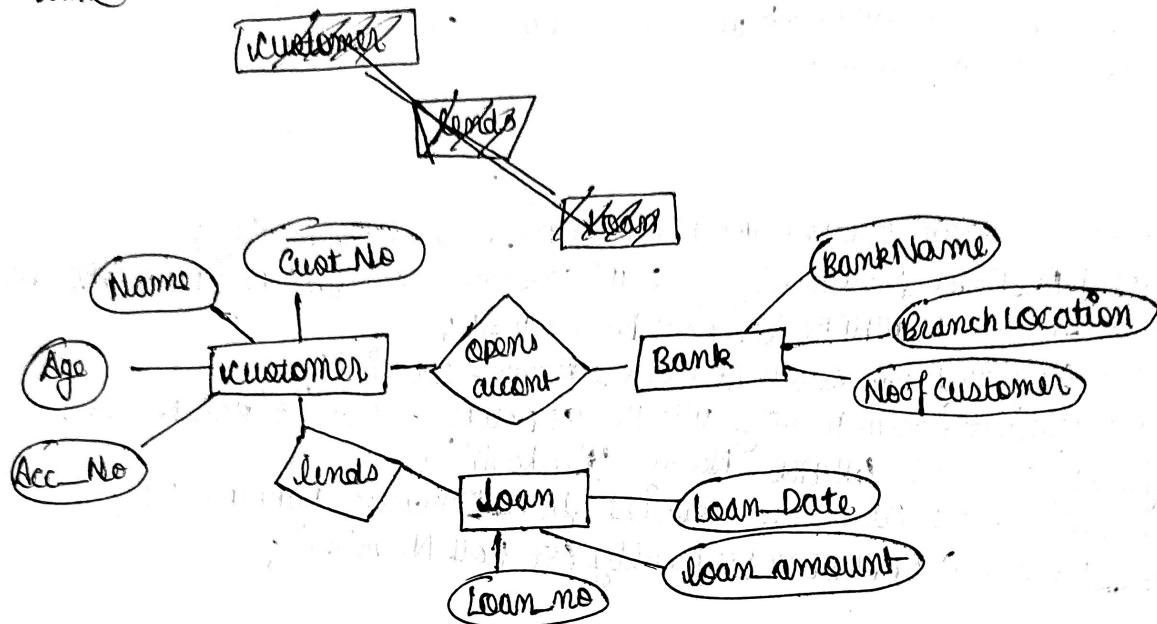
Ques 6

- ① select from candidate where contact is null ;
- ② select candidate_Reg_No from Employment_Agency where salary = (select MAX(salary) from Employment_Agency) ;
- ③ select company_name from Employment_Agency where Candidate_Reg_No = (select Registration_No from candidate where name = 'Somesh Chandra') ;
- ④ select AVG(salary) as Average_Salary from Employment_Agency ;
- ⑤ Alter table Candidate Add constraint fk_Candidate_Reg_No Foreign key (Registration_No) REFERENCES Employment_Agency(Candidate_Reg_No) ;



1. Update Patient set Age = 42 where PNo = 'P3001' ;
2. Alter table Hospital Add HNumber INT ;
3. Delete from Doctor where DOC_ID = 401 ;
4. Select * from Doctor where fees is NULL ;

Ques 8



1. update customer set name = 'Vijay Kumar' where Acc no = 101;
2. alter table Bank add Bank Owner VARCHAR(255);
3. delete from Loan where Loan no = 401;
4. select from customer where Age is NULL;