

SE-computer(Div-B)	Roll number : 8953
Experiment no. : 1	Date of Implementation :06/04/2021

Related Course outcome : At the end of the course, Students will be able to design ER model and develop relational model

Rubrics for assessment of Experiment:

Indicator	Poor	Average	Good
Timeliness <ul style="list-style-type: none"> Maintains assignment deadline (3) 	Assignment not done (0)	One or More than One week late (1-2)	Maintains deadline (3)
Completeness and neatness <ul style="list-style-type: none"> Complete all parts of ER diagram(3) 	N/A	< 80% complete (1-2)	100% complete (3)
Originality <ul style="list-style-type: none"> Extent of plagiarism(2) 	Copied it from someone else(0)	At least few questions have been done without copying(1)	Assignment has been solved completely without copying (2)
Knowledge <ul style="list-style-type: none"> In depth knowledge of the assignment(2) 	Unable to answer 2 questions(0)	Unable to answer 1 question (1)	Able to answer 2 questions (2)

Assessment Marks :

Timeliness	
Completeness and neatness	
Originality	
Knowledge	
Total	

Total : (Out of 10)

Teacher's Sign :

Name Student	Brendan Lucas	Roll No.	8953
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Lab Experiment No.	1	Date	06/04/2021
Expt. Title	Problem Definition and draw ER /EER diagram		
Tool Used :	draw.io. or Lucidchart		

Aim : Problem Definition and draw ER /EER diagram

Objective of the Experiment:

1. Defining problem statement.

Theory : (Sample Problem statement-Advertising agency)

An “Advertising agency” is a service business dedicated to creating, planning, and handling advertising for its “clients or customers” Here clients are “companies” and that companies produce “products”. This product needs print or television or Internet ads in order to increase their sales in the market. An Advertising agency independent from the client and provides an outside point of view to the effort of selling the client’s products or services. An agency can also handle overall marketing and branding strategies and sales promotions for its clients. Inside Advertising agency mainly three departments are there. They are

1. CUSTOMER RELATIONSHIP DEPARTMENT

This department takes the orders from clients in order to give ads on their products.

2. FINANCE DEPARTMENT

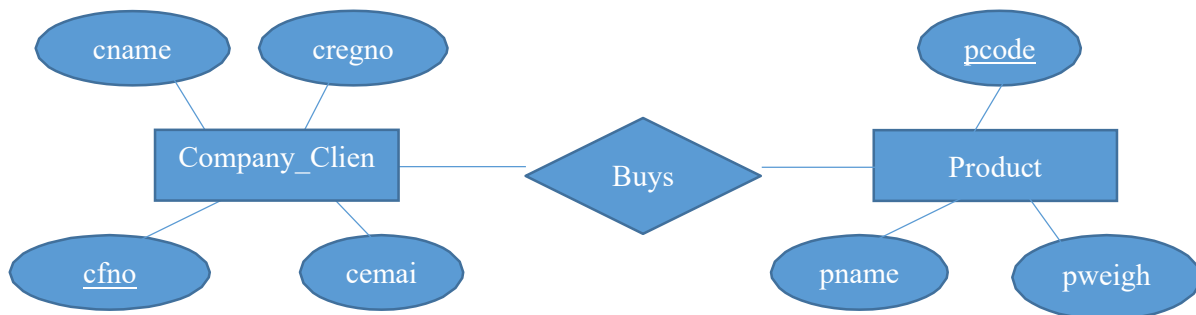
“Finance department ” deals with the finance matters between clients and Advertising agency just like how much money client paid at initial time and what is the balance amount and what is the last date to pay balance etc..

3. CREATIVE DEPARTMENT

Creative department is a department where “employees” creates the actual ads from the core of an advertising agency. Creative department frequently work with “productionstudios” to develop and implement their ideas.

In Ad agency large number of “employees” exists. For example (i) Creative, drawing artists & copy writers work in creative department. (ii) Account manager handles finance department. (iii) .Branch manager handle ad branch etc. for these employees “dependents” may also exists.

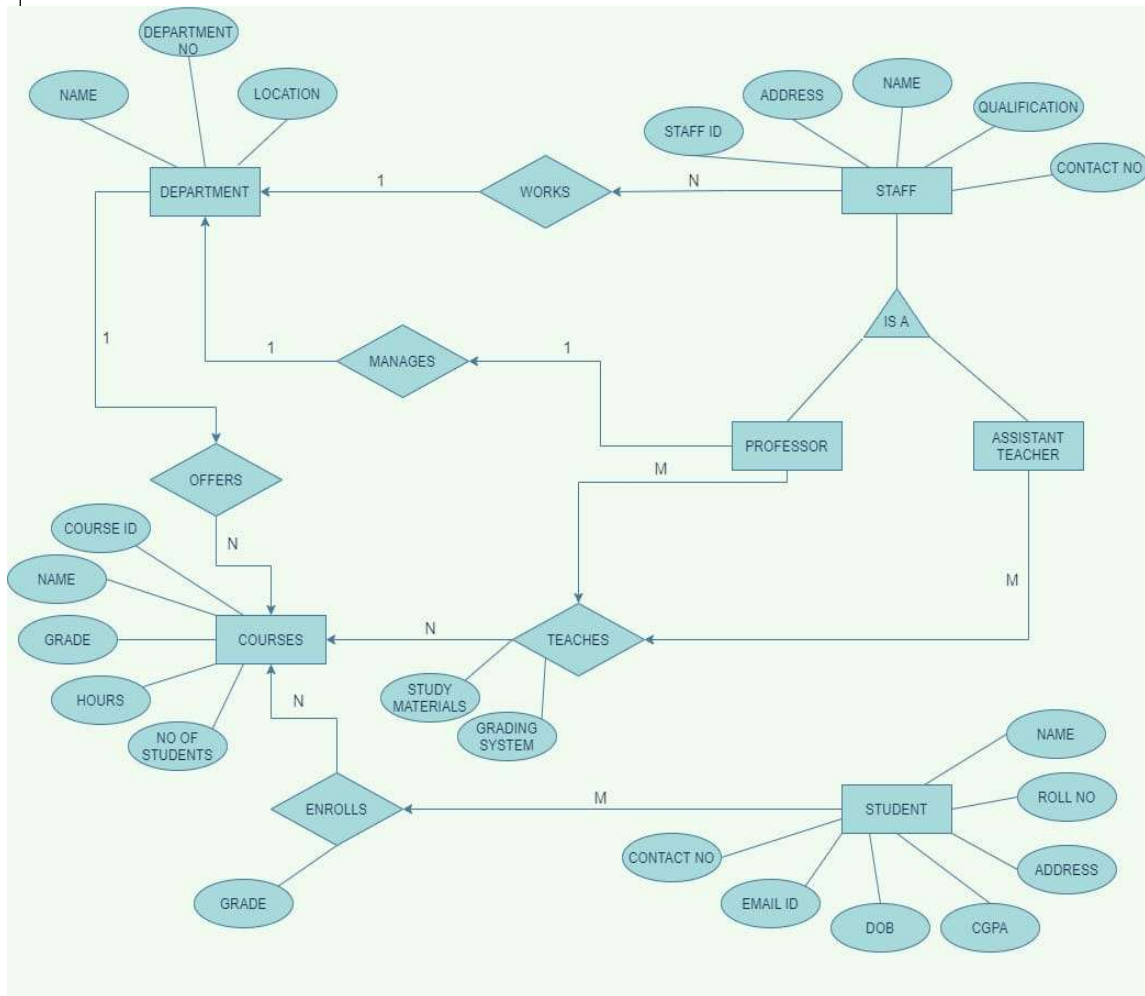
Sample E-R diagram:-



Description of Problem Statement:-

- The topic for our group was college information management system.
- The Diagram contains 6 entities and 5 relations between those entities. Each of these can have multiple attributes.
- The 6 entities followed by their attributes
 - STAFF:
 - Name
 - Address
 - Qualification
 - Contact_no
 - Staff_id
 - Staff Can be any one of the following
 - ❖ PROFESSOR
 - ❖ ASSISTANT TEACHER
 - DEPARTMENT:
 - Dept_name
 - Dept_no
 - Location
 - COURSES:
 - Name
 - No_of_students
 - Course_id
 - Grade
 - No_of_hours
 - STUDENT:
 - Name
 - Roll_no
 - Address
 - CGPA
 - DOB
 - Email-id
 - Contact_no
- The 5 relations are as follows:
 - Works for:
 - Contains 1 Department
 - Contains N Staff
 - Manages
 - Contains 1 Department
 - Contains 1 Professor
 - Offers
 - Contains 1 Department
 - Contains N Courses
 - Teaches
 - Contains M Teachers and Professors
 - Contains N Courses
 - Has the following attributes
 - ❖ Study Material
 - ❖ Grading System
 - Enrolls
 - Contains N Courses
 - Contains M Students
 - Has the following attributes
 - ❖ Grade

E-R diagram for the Problem to be implemented.



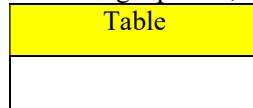
ER Diagram for College Information Management system

Post Lab Assignment:

1) Describe various symbols used in E-R Diagram

Ans. The following symbols are used while drawing an ER diagram

Entity in a database could be a single person, a place, or a thing about which data can be stored.



Strong entity is one that exists on its own, independent of other entities.



Weak entity is one whose existence depends on another entity. A weak entity cannot be uniquely identified by its attributes alone.



Strong relationships are connections that exist between a strong entity type and its owner.



Weak relationships are connections that exist between a weak entity type and its owner.



Attribute is a piece of information which determines the properties of a field or tag in a database or a string of characters in a display.



List of topics for ER diagram

1. Facebook system
2. Stock exchange syst
3. Wikipedia
4. Youtube
5. Traffic monitoring system
6. Dmart
7. Amazon
8. Twitter
9. Instagram
10. Olx.com
11. Hike
12. Whatsapp
13. Flipcart
14. Yahoo
15. Google search
16. Bio research
17. Bookmyshow
18. Election system- targeting the voters
19. Inventory management system
20. Library management system
21. College information management system
22. Banking system
23. Hospital management system
24. Airline reservation system
25. Railway reservation system
26. Ticket booking system
27. Hotel reservation system
28. Ola.
29. Other topics after the discussion and approval of subject teacher