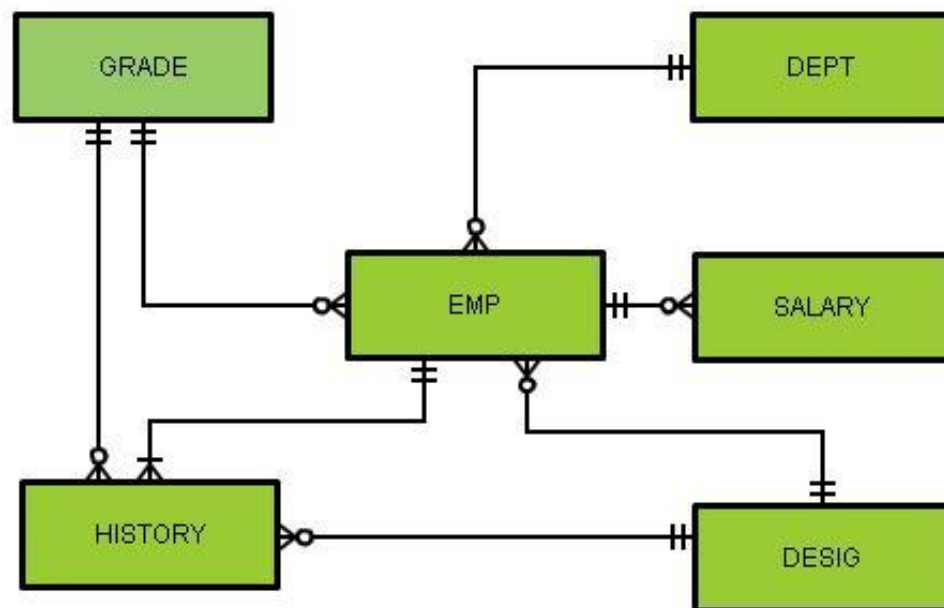


**DBT Lab exam (Duration 2 Hours)**

**Section I - SQL (30 marks)**

**Instructions:**

1. Questions 1- 2 carry FOUR marks each.
2. Questions 3- 4 carry FIVE marks each.
3. Questions 5 - 6 carry SIX marks each.(These questions have option to choose one out of two questions)
4. You are advised to save all the queries along with the screenshots to a file with you Roll No.
  - \* If any query is not copied it will not be evaluated.
5. Refer to the ER Diagram for table structure and key migration details.



1. List the employees who got salary allowance between Rs.1000 to Rs.1500 in the year 2012.
2. List the oldest employee of the office.
3. List the employees who have atleast two person working under him/her and the number of their subordinates. List the employee with highest number of subordinates first, next the person with next highest number of subordinates and so on.
4. List the departments in which average salary of employees is more than average salary of the company.
5. Create a procedure to count employees by gender from employee table. Use OUT keyword to store the count. Display the result of this procedure.
6. Create a function to count number of employee born in a particular year. Execute this function by passing an year 1970

## Section II – NoSQL(MongoDB) (10 marks)

### Instructions:

- Questions 1 and 10 carry HALF marks each.
- Questions 3- 8 carry ONE marks each.
- Question no 2 is of TWO marks.
- You are advised to save all the queries along with the screenshots to a file with you Roll No.
  - \* If any query is not copied it will not be evaluated.

1- Create a database **country**

2- Insert the following documents in **citizen** collection

first	last	age	gender	hair_colour	occupation	nationality
matthew	setter	40	m	brown	developer	australian
james	caan	28	m	brown	actor	american
arnold	chaw	53	m	brown	actor	american
tony	curtis	61	m	brown	developer	american
jamie	curtis	32	f	brown	actor	american
michael	caine	36	m	brown	actor	english
judi	dench	47	f	white	developer	english

3-Retrieves all male, American actors and sort them in ascending order of age.

4-Update the record for James Caan specifying that his hair is grey, not brown.

5-Return Count of the documents in the citizen collection whose age is greater than 35

6-Increment age of citizen whose first name is tony by 3

7-Create an index on the age field of the citizen collection

8-Remove the documents from citizen collection whose last name is “curtis”.

9-Display all the indexes of the citizen collection

10-Drop database COUNTRY