

Exam 01

Try To Write The Following Queries :

1. Write a query that displays Full name of an employee who has more than 3 letters in his/her First Name. {1 Point}
2. Write a query to display the total number of Programming books available in the library with alias name 'NO OF PROGRAMMING BOOKS' {1 Point}
3. Write a query to display the number of books published by (HarperCollins) with the alias name 'NO_OF_BOOKS'. {1 Point}
4. Write a query to display the User SSN and name, date of borrowing and due date of the User whose due date is before July 2022. {1 Point}
5. Write a query to display book title, author name and display in the following format,

' [Book Title] is written by [Author Name]'. {2 Points}
6. Write a query to display the name of users who have letter 'A' in their names. {1 Point}
7. Write a query that display user SSN who makes the most borrowing {2 Points}
8. Write a query that displays the total amount of money that each user paid for borrowing books. {2 Points}
9. write a query that displays the category which has the book that has the minimum amount of money for borrowing. {2 Points}
10. write a query that displays the email of an employee if it's not found, display address if it's not found, display date of birthday. {1 Point}

11. Write a query to list the category and number of books in each category with the alias name 'Count Of Books'. {1 Point}
12. Write a query that display books id which is not found in floor num = 1 and shelf-code = A1. {2 Points}
13. Write a query that displays the floor number , Number of Blocks and number of employees working on that floor. {2 Points}
14. Display Book Title and User Name to designate Borrowing that occurred within the period '3/1/2022' and '10/1/2022'. {2 Points}
15. Display Employee Full Name and Name Of his/her Supervisor as Supervisor Name. {2 Points}
16. Select Employee name and his/her salary but if there is no salary display Employee bonus. {2 Points}
17. Display max and min salary for Employees {2 Points}
18. Write a function that take Number and display if it is even or odd {2 Points}
19. write a function that take category name and display Title of books in that category {2 Points}
20. write a function that takes the phone of the user and displays Book Title , user-name, amount of money and due-date. {2 Points}
21. Write a function that take user name and check if it's duplicated

return Message in the following format ([User Name] is Repeated [Count] times) if it's not duplicated display msg with this format [user name] is not duplicated, if it's not Found Return [User Name] is Not Found {2 Points}
22. Create a scalar function that takes date and Format to return Date With That Format. {2 Points}
23. Create a stored procedure to show the number of books per Category. {2 Points}

24. Create a stored procedure that will be used in case there is an old manager who has left the floor and a new one becomes his replacement. The procedure should take 3 parameters (old Emp.id, new Emp.id and the floor number) and it will be used to update the floor table. {3 Points}
25. Create a view AlexAndCairoEmp that displays Employee data for users who live in Alex or Cairo. {2 Points}
26. create a view "V2" That displays number of books per shelf {2 Points}
27. create a view "V3" That display the shelf code that have maximum number of books using the previous view "V2" {2 Points}
28. Create a table named 'ReturnedBooks' With the Following Structure :

User SSN	Book Id	Due Date	Return Date	fees

then create A trigger that instead of inserting the data of returned book checks if the return date is the due date or not if not so the user must pay a fee and it will be 20% of the amount that was paid before. {3 Points}

29. In the Floor table insert new Floor With Number of blocks 2 , employee with SSN = 20 as a manager for this Floor, The start date for this manager is Now. Do what is required if you know that : Mr.Omar Amr(SSN=5) moved to be the manager of the new Floor (id = 6), and they give Mr. Ali Mohamed(his SSN =12) His position . {3 Points}
30. Create view name (v_2006_check) that will display Manager id, Floor Number where he/she works , Number of Blocks and the Hiring Date which must be from the first of March and the end of May 2022. this view will be used to insert data so make sure that the coming new data must match the condition then try to insert this 2 rows and

Mention What will happen {3 Point}

Employee Id	Floor Number	Number of Blocks	Hiring Date
2	6	2	7-8-2023
4	7	1	4-8-2022

31. Create a trigger to prevent anyone from Modifying or Delete or Insert in the Employee table (Display a message for user to tell him that he can't take any action with this Table) {3 Point}

32. Testing Referential Integrity , Mention What Will Happen When:

- A. Add a new User Phone Number with User_SSN = 50 in User_Phones Table {1 Point}
- B. Modify the employee id 20 in the employee table to 21 {1 Point}
- C. Delete the employee with id 1 {1 Point}
- D. Delete the employee with id 12 {1 Point}
- E. Create an index on column (Salary) that allows you to cluster the data in table Employee. {1 Point}

33. Try to Create Login With Your Name And give yourself access Only to Employee and Floor tables then allow this login to select and insert data into tables and deny Delete and update (Don't Forget To take screenshot to every step) {5 Points}