



CL2005- Database Systems Lab

Lab Assignment

SQL-II (Group & Built-in Functions)

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Semester	Spring 2022

Instructions:

- You have been assigned **two tasks** for this week.
- First, do the following **task 1**.
- Then you are required to implement all the built-in functions and submit on same word file as **Task 2**.
- Paste all the queries and screenshot of output in word file.
- Submit on Google Classroom. **Deadline** = = **10th April,22 Till 10:00 PM**

TASK # 1

Interloop Database

1. Open Sql Server Management Studio.
2. Create database “Interloop”
3. Create table “Employee”
4. Add the following fields as specified:
Note: You may add extra relevant fields.

Field Name	Data Type
Employee ID (Primary key)	nchar(7) Nulls not allowed e.g. f138079 or f168060
First Name	varchar Nulls not allowed
Last Name	varchar Nulls not allowed
Branch	nchar(5) Nulls not allowed
Age	Numeric(2,0) Nulls not allowed
NIC	nchar(15) Nulls not allowed
Scale	Numeric(1,0) Nulls not allowed
Salary	Int Nulls not allowed
Joining Date	Date Nulls not allowed
Overtime (In Hours)	float Nulls are allowed

5. Add 20 records in Employee table.
6. You must use appropriate column alias for all the queries in the assignment.
7. Write and execute queries to generate the following outputs one by one:
 - 1) Replace any employee’s Joining with current date.
 - 2) Output max salary grouped by branch.
 - 3) Output branches whose average salary is greater than 30k.
 - 4) Replace last name of any employee to “King”.

- 5) Output sum of overtime in each branch.
- 6) Output max of overtime in each branch.
- 7) Output min of overtime in each branch.
- 8) Output count of employee who have overtime hours greater than 5.6.
- 9) Output all employee who started working at Interloop after “1st January 2015”
- 10) Output all employee whose name starts with (A or M or E).
- 11) Output all employee whose name contain a vowel.
- 12) Output all employee whose last name length is greater than their first name.
- 13) Output all employee whose names are not in the following list {'Ahmed', 'Tahir', 'Hiba', 'Amna'}
(Note: Make sure to add records in table with the following names.)
- 14) Create a view with employee's personal information. In view, combine the employee's first & last name.
- 15) Output standard deviation of overtime hour in each branch.
- 16) Output variance of salary in each branch.
- 17) Output the number of employee in each branch.
- 18) Output all employee's whose employee ID starts from '21f'.
- 19) Output all employee whose overtime hour is greater than the average (Overtime hour).

TASK 2

- Implement all the **built-in functions** used in **slides and (provided) PDF** File.

Good Luck!!

