

BUILT IN FUNCTIONS

1. Evaluate the following using Built in functions
 - a. $\text{Cos}(\text{absolute}(-10)) * e^2$,print the rounded value
 - b. $\text{Log}_{10}(\sqrt{((5^4)\%14)})$, print the result as 2 digit in decimal part
 - c. $\text{Sin}(30)+\text{tan}(60)$, also print the sign of the result
2. Find the greatest preceding or the least succeeding integer of 12.9
3. Display Name of instructor as Uppercase, lowercase letters, and also shows as first letter in capital in separate columns
4. Replace the '-' in Course_id with '/' and display it as new column
5. Display the name of instructor with department name as full name
6. Display the last 3 numbers from course id

AGGREGATE FUNCTIONS

1. Find the sum of the salaries of all instructors, the maximum salary, the minimum salary, and the average salary.
2. Find the sum of the salaries of all instructors of the 'History' department, as well as the maximum salary, the minimum salary, and the average salary in this department.
3. Retrieve the total number of instructors in the institution
4. Retrieve the total number of instructors in the 'Computer science' department
5. Count the number of distinct salary values in the database.

HAVING AND GROUP BY

1. For each department, retrieve the department name, the number of instructors in the department, and their average salary.
2. For each course, retrieve the course_id, the semester, and the number of students who takes that course.
3. For each course on which more than two students taken, retrieve the course_id, the semester, and the number of students who takes that course.
4. For each course, retrieve the course_id, the instructor name, and the number of courses taken from each department
5. For each department that has more than two instructors, retrieve the department name and the number of its instructors who are making more than \$80,000.