

LINQ in C# - Practice Task

Welcome to the LINQ in C# training task!

Task Objective:

The objective of this task is to help you practice using LINQ queries in C# to manipulate and query data collections effectively.

Task Description:

1. Create a console application in C#.
2. Use a `List<Employee>` where each employee has the following properties:
 - `Id` (int)
 - `Name` (string)
 - `Department` (string)
 - `Salary` (decimal)
3. Populate the list with at least 10 employee records with varying values.

Tasks to Perform:

1. Write a LINQ query to fetch all employees in the "IT" department.
2. Find the employee with the highest salary using a LINQ query.
3. Sort the employees by their names in ascending order and display them.
4. Calculate the average salary of employees in the "HR" department.
5. Write a LINQ query to fetch employees whose salary is greater than 50,000 and order them by department.
6. Use LINQ to group employees by department and display the department name and count of employees in each.

7. Create a new list that contains only the ``Name`` and ``Salary`` of employees and display it.

Bonus Task:

- Use LINQ to find the second-highest salary in the list.
- Implement a LINQ query to fetch employees whose names start with a vowel.

Expected Output:

- Ensure all outputs are displayed in the console application using ``Console.WriteLine``.

Hints:

- Use LINQ methods like ``Where``, ``OrderBy``, ``Select``, ``GroupBy``, etc.
- Use lambda expressions for concise queries.
- Test your queries thoroughly with varying data.

Happy Coding!