

## Basic ArrayList Operations

1. Create an `ArrayList` to store student names.
2. Add 5 student names to the list.
3. Display all names.
4. Remove one name from the list.
5. Insert a new name at index 2.
6. Print the final list using both a `for` loop and a `foreach` loop.

## ArrayList with Mixed Data Types

1. Create an `ArrayList` and add the following elements:
  - A string ("`John`")
  - An integer (`25`)
  - A double (`75.5`)
  - A boolean (`true`)
2. Iterate through the list and print each element along with its **data type** using `GetType()`.

## Using Generics with List

1. Create a `List<int>` to store marks of 5 students.
2. Add marks (e.g., 78, 92, 67, 88, 95).
3. Calculate and print the **average mark**.
4. Remove the lowest mark.
5. Sort the list in ascending order and print the updated list.

## List of Custom Objects

1. Create a class **Book** with properties: **Title**, **Author**, and **Price**.
2. Create a **List<Book>** and add at least 3 books.
3. Display all book details.
4. Find and display the book with the **highest price**.
5. Remove a book by title.

## LINQ with List

1. Create a **List<string>** of 6 names.
2. Use LINQ to:
  - Find all names that start with '**A**'.
  - Find names with length greater than 4.
3. Display the results.

## Menu-Based List Program

Create a console app to manage an employee list: Create an **EmployeeCollection** class and add **List<Employee>**. Create methods for the below operations.

Employee class structure:

Property Name	Data Type
Id, set	String, autogenerated Emp1000, Emp1001 etc
Name	string
Salary	double
EmployeeType	String (Permanent, Contract)

- Add Employee

- Remove Employee : Input Employee Id, if no employee found display ***No Employee found with Id <Id input>***
- Display All Employees
- Search Employee by Name : Input name, if no employee found display ***No Employee found***
- Exit

In the [Program.cs](#) class, Display the below text

Welcome to the Employee Management System...

Please choose one of the following:

1. Add Employee
2. Remove Employee
3. Display All Employees
4. Search Employee
5. Exit