

## **solution1 - YjBw5aeq**

```
using System;  
using System.Collections.Generic;
```

```
class Book  
{  
    // Define properties  
    public string Title { get; set; }  
    public string Author { get; set; }  
    public string ISBN { get; set; }  
  
    // Define constructor  
    public Book(string title, string author, string isbn)  
    {  
        Title = title;  
        Author = author;  
        ISBN = isbn;  
    }  
}
```

```
class Library  
{  
    // Define collection to store books  
    private List<Book> books = new List<Book>();  
  
    // Add method to add a book  
    public void AddBook(Book book)  
    {  
        books.Add(book);  
        Console.WriteLine("Book added successfully.");  
    }  
  
    // Add method to remove a book by ISBN  
    public void RemoveBook(string isbn)  
    {  
        Book bookToRemove = books.Find(book => book.ISBN == isbn);  
        if (bookToRemove != null)  
        {  
            books.Remove(bookToRemove);  
            Console.WriteLine("Book removed successfully.");  
        }  
        else  
        {  
            Console.WriteLine("Book not found.");  
        }  
    }  
}
```

```

    }
}

// Add method to list all books
public void ListBooks()
{
    Console.WriteLine("Listing all books:");
    foreach (Book book in books)
    {
        Console.WriteLine($"Title: {book.Title}, Author: {book.Author}, ISBN: {book.ISBN}");
    }
}
}

```

```

class Program
{
    static void Main(string[] args)
    {
        Library library = new Library();
        bool exit = false;

        while (!exit)
        {
            Console.WriteLine("Choose an option:");
            Console.WriteLine("1. Add Book");
            Console.WriteLine("2. Remove Book");
            Console.WriteLine("3. List Books");
            Console.WriteLine("4. Exit");
            int choice = Convert.ToInt32(Console.ReadLine());

            switch (choice)
            {
                case 1:
                    // Prompt for book details and add book
                    Console.WriteLine("Enter book title:");
                    string title = Console.ReadLine();
                    Console.WriteLine("Enter book author:");
                    string author = Console.ReadLine();
                    Console.WriteLine("Enter book ISBN:");
                    string isbn = Console.ReadLine();
                    Book book = new Book(title, author, isbn);
                    library.AddBook(book);
                    break;
                case 2:

```

```

        // Prompt for ISBN and remove book
        Console.WriteLine("Enter book ISBN to remove:");
        string isbnToRemove = Console.ReadLine();
        library.RemoveBook(isbnToRemove);
        break;
    case 3:
        // List all books
        library.ListBooks();
        break;
    case 4:
        exit = true;
        break;
    default:
        Console.WriteLine("Invalid choice. Please try again.");
        break;
    }
}
}
}
}

```

## Solution 2 - mwerk0AI

using System;

```

// Define PropertyDemo class
public class PropertyDemo
{
    // Public property
    public int PublicProperty { get; set; }

    // Private property
    private string _privateProperty;
    public string PrivateProperty
    {
        get
        {
            return _privateProperty;
        }
        set
        {
            _privateProperty = value;
        }
    }
}

```

```

}

// Define StaticDemo class
public class StaticDemo
{
    // Static variable
    public static int StaticVariable = 10;

    // Static method
    public static void StaticMethod()
    {
        Console.WriteLine("Static Method");
    }

    // Static constructor
    static StaticDemo()
    {
        Console.WriteLine("Static Constructor");
    }
}

// Define MathHelper static class
public static class MathHelper
{
    // Static method for addition
    public static int Add(int a, int b)
    {
        return a + b;
    }

    // Static method for subtraction
    public static int Subtract(int a, int b)
    {
        return a - b;
    }
}

public class Program
{
    public static void Main()
    {
        // Create PropertyDemo object
        PropertyDemo propertyDemo = new PropertyDemo();
        propertyDemo.PublicProperty = 5;
    }
}

```

```
propertyDemo.PrivateProperty = "Private Value";  
Console.WriteLine(propertyDemo.PublicProperty);  
Console.WriteLine(propertyDemo.PrivateProperty);  
  
// Access static members of StaticDemo class  
Console.WriteLine(StaticDemo.StaticVariable);  
StaticDemo.StaticMethod();  
  
// Call static methods of MathHelper class  
Console.WriteLine(MathHelper.Add(10, 5));  
Console.WriteLine(MathHelper.Subtract(10, 5));  
}  
}
```