Design a program to manage a university library. You'll have different types of library resources:

Book: Title, Author, ISBN (unique identifier), Number of Pages

Movie: Title, Director, Release Year, Running Time (minutes)

Both Book and Movie resources can be borrowed by students. Implement inheritance to model

this scenario.

Requirements:

1. **Class Structure:**

Create a base class named LibraryResource with properties:

* Title (String)
* Define derived classes:
* Book: Inherits from LibraryResource. Add properties:
* Author (String)
* ISBN (String) - Assume it's unique for each book.
* NumPages (Integer)
* Movie: Inherits from LibraryResource. Add properties:
* Director (String)
* ReleaseYear (Integer)
* RunningTime (Integer) – Minutes

2.**Borrowing Functionality:**

Implement a method named Borrow() in the LibraryResource class (or a suitable alternative):

♣ This method should be declared as virtual to allow overriding in subclasses.

♣ The base class implementation can simply print a message indicating a resource is being borrowed.

3. **Overriding Borrow():**

In the Book and Movie subclasses, override the Borrow() method to provide specific borrowing information:

♣ Book.Borrow(): Print a message including book title, author, and "Enjoy reading!".

♣ Movie.Borrow**():** Print a message including movie title, director, and "Enjoy watching!".

**4. Testing**:

Create objects of type Book and Movie and call their Borrow() methods to demonstrate polymorphism.

1. using System;

public class LibraryResource

{

protected string title;

public LibraryResource(string title)

{

this.title = title;

}

public virtual void Borrow()

{

Console.WriteLine($"Borrowing resource: {title}");

}

}

public class Book : LibraryResource

{

private string author;

private string isbn;

private int numPages;

public Book(string title, string author, string isbn, int numPages)

: base(title)

{

this.author = author;

this.isbn = isbn;

this.numPages = numPages;

}

public override void Borrow()

{

Console.WriteLine($"Borrowing Book: '{title}' by {author}");

}

}

public class Movie : LibraryResource

{

private string director;

private int releaseYear;

private int runningTime;

public Movie(string title, string director, int releaseYear, int runningTime)

: base(title)

{

this.director = director;

this.releaseYear = releaseYear;

this.runningTime = runningTime;

}

public override void Borrow()

{

Console.WriteLine($"Borrowing Movie: '{title}' directed by {director}.");

}

}

class Program

{

static void Main()

{

Book book = new Book("1984", "George Lemayian", "456923937890", 418);

Movie movie = new Movie("Inception", "Alvin janum", 2011, 148);

LibraryResource[] resources = { book, movie };

foreach (var resource in resources)

{

resource.Borrow();

}

}

}

