**MILESTONE ASSESSMENT 4**

**Online Book Purchase Application**

**1. Create the Author and Book entities with required entity relations**

**2. Implement Below functionalities on BookRepository**

**· GetAllBooks()**

**· AddBook()**

**· GetBookById()**

**· UpdateBookPriceById()**

**3. Implement Blow functionalities on AuthorReposiotry**

**· AddAutor()**

**· GetAllAuthors()**

**4. Create Book And Author Controllers and invoke BookRepository and Author Repository functionalities using respective action methods.**

**5. Test the Book and Author actions using SwaggerUI or POSTMAN.**

**SQL CODE:**

create database OnlineBookPurchaseApplication

use OnlineBookPurchaseApplication

create table Author([AuthorId] [int] IDENTITY(1,1) NOT NULL primary key,

[AuthorName] [varchar](50) NULL,

[Country] [varchar](50) NULL,

[Address] [varchar](50) NULL)

create table Book([BookId] [int] IDENTITY(1,1) NOT NULL primary key,

[BookTitle] [varchar](50) NULL,

[Price] [varchar](50) NULL,

[Language] [varchar](50) NULL,

[AuthorId] [int] foreign key references Author(AuthorId))

create table Role([RoleId] [int] IDENTITY(1,1) NOT NULL primary key,

[RoleName] [varchar](50) NULL)

create table Person([PersonId] [int] IDENTITY(1,1) NOT NULL primary key,

[PersonName] [varchar](50) NULL,

[Password] [varchar](50) NULL,

[EmailId] [varchar](50) NULL,

[PersonCity] [varchar](50) NULL,

[RoleId] [int] foreign key references Role(RoleId))

**VISUAL STUDIO CODE:**

**CREATE WEB APPLICATION**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

namespace OnlineBookPurchaseApplication.Models

{

public partial class Book

{

public int BookId { get; set; }

public string BookTitle { get; set; }

public string Price { get; set; }

public string Language { get; set; }

public int AuthorId { get; set; }

}

}

using System;

using System.Collections.Generic;

using System.Linq;

using System.Web;

namespace OnlineBookPurchaseApplication.Models

{

public partial class Author

{

public int AuthorId { get; set; }

public string AuthorName { get; set; }

public string Country { get; set; }

public string Address { get; set; }

}

}

**BookController:**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Net;

using System.Net.Http;

using System.Web.Http;

using System.Data;

using OnlineBookPurchaseApplication.Models;

using System.Data.SqlClient;

namespace OnlineBookPurchaseApplication.Controllers

{

public class BookController : ApiController

{

SqlConnection con = new SqlConnection

(@"Data Source=(local)\SQLEXPRESS;Initial Catalog= OnlineBookPurchaseApplication;Integrated Security=True;MultipleActiveResultSets=True");

public HttpResponseMessage GetAllBooks()

{

DataTable dt = new DataTable();

using (var cmd = new SqlCommand("Select \* from Book", con))

using (var da = new SqlDataAdapter(cmd))

{

cmd.CommandType = CommandType.Text;

da.Fill(dt);

}

return Request.CreateResponse(HttpStatusCode.OK, dt);

}

public HttpResponseMessage GetById(Book bk)

{

DataTable dt = new DataTable();

string query = @"Select \* Book

where BookId=" + bk.BookId + @" ";

using (var cmd = new SqlCommand(query, con))

using (var da = new SqlDataAdapter(cmd))

{

cmd.CommandType = CommandType.Text;

da.Fill(dt);

}

return Request.CreateResponse(HttpStatusCode.OK, dt);

}

public HttpResponseMessage AddBook(Book bk)

{

try

{

DataTable dt = new DataTable();

string query = @"insert into Book

(BookTitle,Price,Language,AuthorId)

values('" + bk.BookTitle + @"','" + bk.Price + @"','" + bk.Language + @"','" + bk.AuthorId + @"')";

using (var cmd = new SqlCommand(query, con))

using (var da = new SqlDataAdapter(cmd))

{

cmd.CommandType = CommandType.Text;

da.Fill(dt);

}

return Request.CreateResponse(HttpStatusCode.OK, dt);

}

catch

{

return Request.CreateResponse(HttpStatusCode.BadRequest);

}

}

public HttpResponseMessage UpdateBook(Book bk)

{

try

{

DataTable dt = new DataTable();

string query = @"update Book set

Price='" + bk.Price + @"'

where BookId=" + bk.BookId + @" ";

using (var cmd = new SqlCommand(query, con))

using (var da = new SqlDataAdapter(cmd))

{

cmd.CommandType = CommandType.Text;

da.Fill(dt);

}

return Request.CreateResponse(HttpStatusCode.OK, dt);

}

catch

{

return Request.CreateResponse(HttpStatusCode.BadRequest);

}

}

}

}

**AuthorController:**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Data;

using System.Data.SqlClient;

using System.Net;

using System.Net.Http;

using System.Web.Http;

using OnlineBookPurchaseApplication.Models;

namespace OnlineBookPurchaseApplication.Controllers

{

public class AuthorController : ApiController

{

SqlConnection con = new SqlConnection

(@"Data Source=(local)\SQLEXPRESS;Initial Catalog= OnlineBookPurchaseApplication;Integrated Security=True;MultipleActiveResultSets=True");

public HttpResponseMessage GetAllAuthors()

{

DataTable dt = new DataTable();

using (var cmd = new SqlCommand("Select \* from Author", con))

using (var da = new SqlDataAdapter(cmd))

{

cmd.CommandType = CommandType.Text;

da.Fill(dt);

}

return Request.CreateResponse(HttpStatusCode.OK, dt);

}

public HttpResponseMessage AddAuthor(Author ar)

{

try

{

DataTable dt = new DataTable();

string query = @"insert into Author

(AuthorName,Country,Address)

values('" + ar.AuthorName + @"','" + ar.Country + @"','" + ar.Address + @"')";

using (var cmd = new SqlCommand(query, con))

using (var da = new SqlDataAdapter(cmd))

{

cmd.CommandType = CommandType.Text;

da.Fill(dt);

}

return Request.CreateResponse(HttpStatusCode.OK, dt);

}

catch

{

return Request.CreateResponse(HttpStatusCode.BadRequest);

}

}

}

}

**OUTPUT:**









