SwaggerUI API documentation for a bookstore web API

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Description

The Bookstore API is a .NET Core application featuring RESTful endpoints, GET, POST, PUT, DELETE, for managing bookstore inventory. This project demonstrates my ability to integrate Swagger for automatic API documentation using Swashbuckle.

Tools and technologies used

- Microsoft Visual Studio 2022
- .NET 8.0
- ASP.NET Core MVC
- Swashbuckle.AspNetCore 6.6.2

Code snippets

Program.cs

```
builder.Services.AddControllers();
// Learn more about configuring Swagger/OpenAPI at https://aka.ms/aspnetcore/swashbuckle
builder.Services.AddEndpointsApiExplorer();
builder.Services.AddSwaggerGen(s =>
{
s.SwaggerDoc("v1", new Microsoft.OpenApi.Models.OpenApiInfo
{
Title = "API documentation for Bookstore",
Version = "v1",
Description = "API documentation for Bookstore",
Contact = new Microsoft.OpenApi.Models.OpenApiContact()
{
Name = "Priya Dalvi",
Email = "dalvipriya09@gmail.com"
},
});
var xmlPath = Path.Combine(System.AppContext.BaseDirectory, "bookstore.xml");
s.IncludeXmlComments(xmlPath);
});

var app = builder.Build();

// Configure the HTTP request pipeline.
if (app.Environment.IsDevelopment())
{
app.UseSwagger();
app.UseSwaggerUI();
}
```

bookstore.csproj

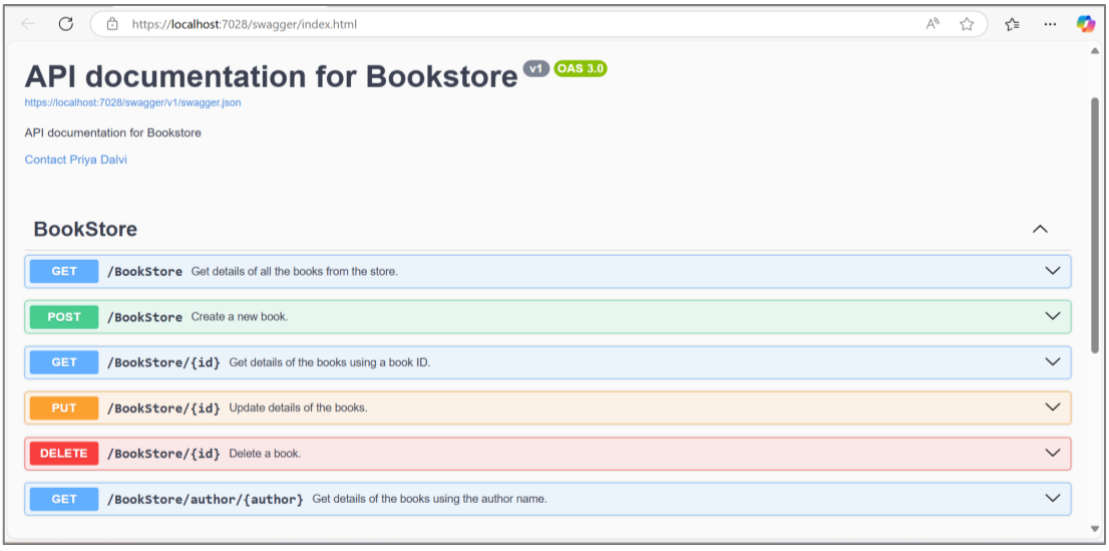
```
<Project Sdk="Microsoft.NET.Sdk.Web">

  <PropertyGroup>
    <TargetFramework>net8.0</TargetFramework>
                <GenerateDocumentationFile>true</GenerateDocumentationFile>
    <Nullable>enable</Nullable>
    <ImplicitUsings>enable</ImplicitUsings>
  </PropertyGroup>
  <ItemGroup>
    <PackageReference Include="Swashbuckle.AspNetCore" Version="6.6.2" />
  </ItemGroup>
</Project>
```

BooksController.cs

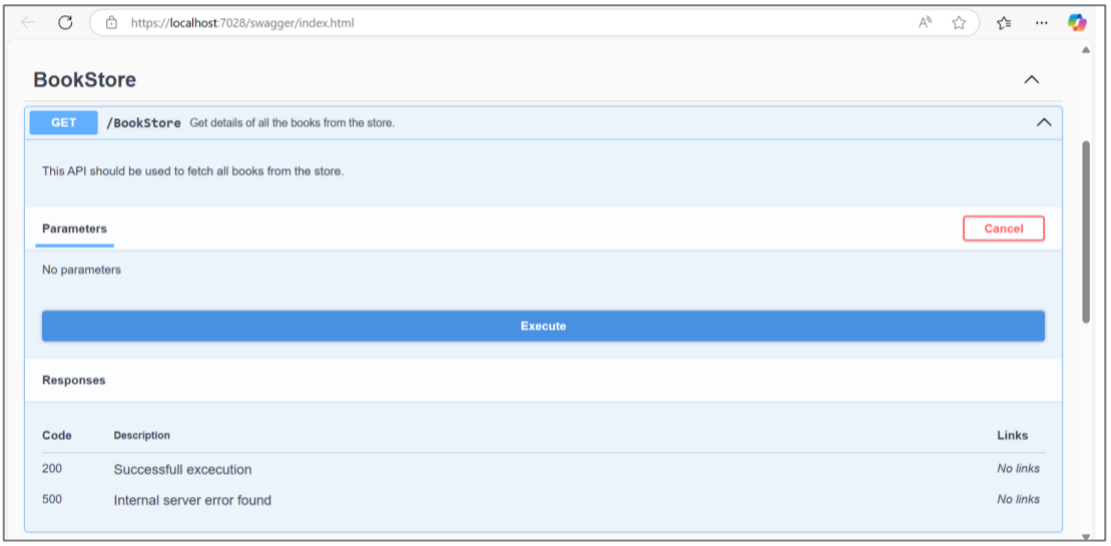
```
namespace Bookstore.Controllers
{
    [ApiController]
    [Route("[controller]")]
    public class BookStoreController : Controller

        // In-memory list to simulate a database
        private static List<Book> Books = new List<Book>
        {
            new Book { Id = 1, Title = "The Catcher in the Rye", Author = "J.D. Salinger", Price = 10.99m },
            new Book { Id = 2, Title = "To Kill a Mockingbird", Author = "Harper Lee", Price = 12.99m },
            new Book { Id = 3, Title = "1984", Author = "George Orwell", Price = 14.99m },
            new Book { Id = 4, Title = "The Great Gatsby", Author = "F. Scott Fitzgerald", Price = 9.99m },
            new Book { Id = 5, Title = "Moby Dick", Author = "Herman Melville", Price = 15.99m },
            new Book { Id = 6, Title = "Pride and Prejudice", Author = "Jane Austen", Price = 8.99m },
            new Book { Id = 7, Title = "War and Peace", Author = "Leo Tolstoy", Price = 20.99m },
            new Book { Id = 8, Title = "The Hobbit", Author = "J.R.R. Tolkien", Price = 13.99m },
            new Book { Id = 9, Title = "Crime and Punishment", Author = "Fyodor Dostoevsky", Price = 16.99m },
            new Book { Id = 10, Title = "The Alchemist", Author = "Paulo Coelho", Price = 11.99m }
        };

        // GET: api/BookStore
        /// <summary>
        /// Get details of all the books from the store.
        /// </summary>
        /// <remarks>This API should be used to fetch all books from the store.</remarks>
        /// <returns></returns>
        /// <response code="200">Successfull excecution</response>
        /// <response code="500">Internal server error found</response>

        [HttpGet]
        public IActionResult GetAllBooks()
        {
            return Ok(Books);
        }
    }
```

Output: Swagger UI screenshots

The following screenshots display the API endpoints, parameters, code responses, and execution results.



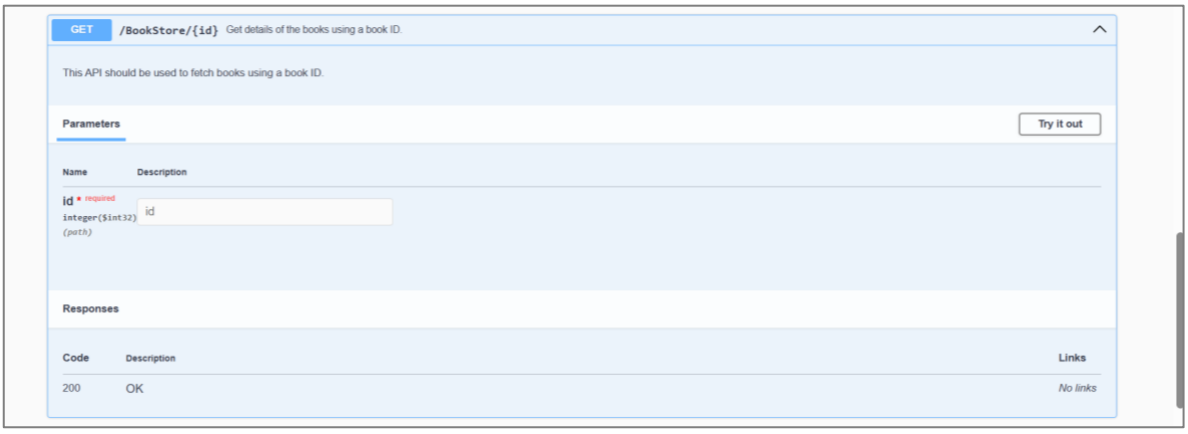
GET


https://localhost:7028/swagger/index.html
BookStore
GET /BookStore Get details of all the books from the store.
This API should be used to fetch all books from the store.
Parameters
Cancel
No parameters
Execute
Responses
Code Description Links
200 Successfull excecution No links
500 Internal server error found No links

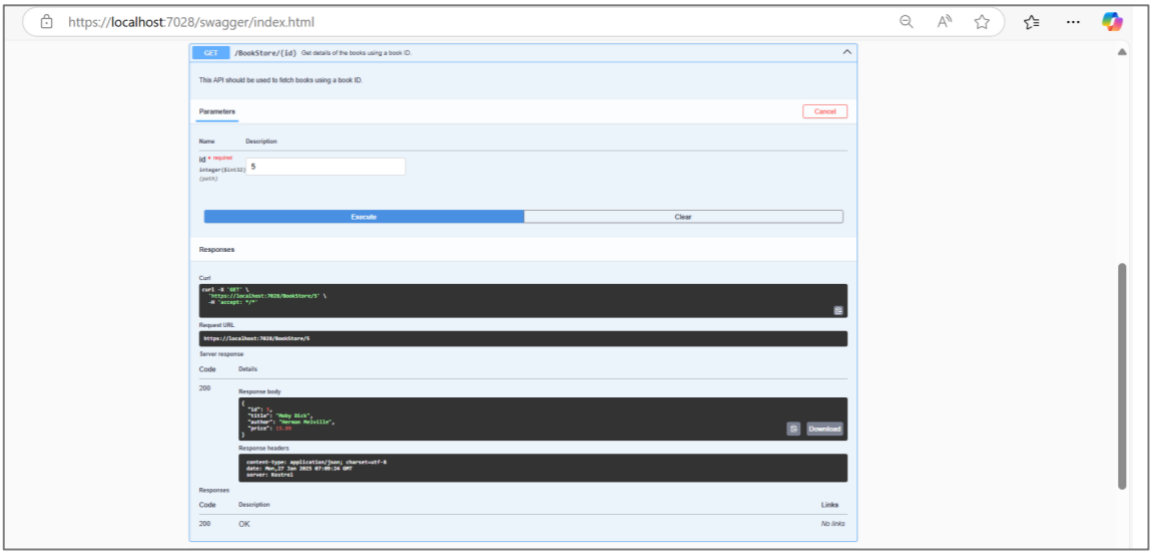
POST


POST /BookStore Create a new book.
This API should be used to add details of a new book in the system.
Parameters
Try it out
No parameters
Request body
application/json
Example Value | Schema
{
"id": 0,
"title": "string",
"author": "string",
"price": 0
}
Responses
Code Description Links
200 OK No links

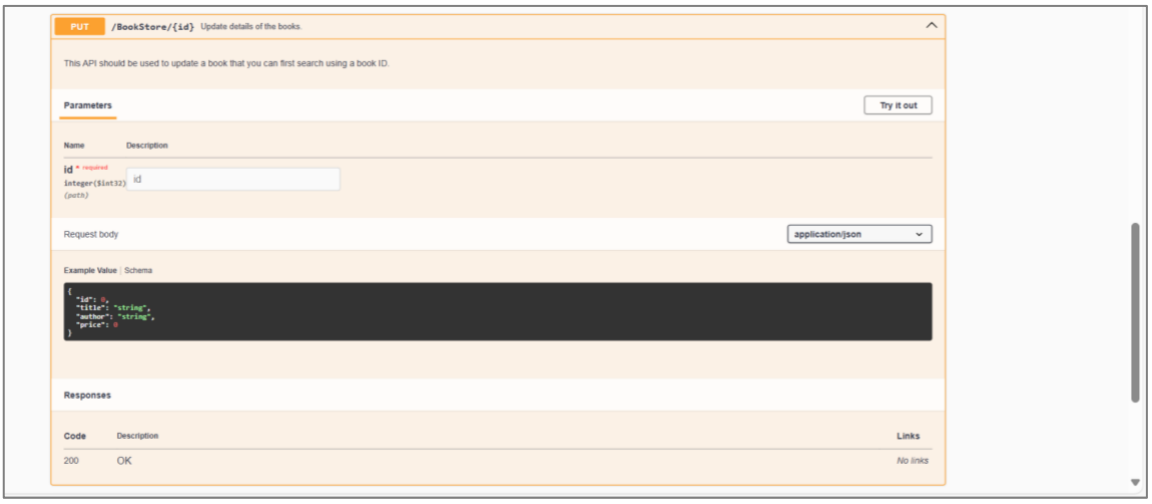
GET


GET /BookStore/{id} Get details of the books using a book ID.
This API should be used to fetch books using a book ID.
Parameters
Try it out
Name Description
id * required
integer($int32)
(path)
id
Responses
Code Description Links
200 OK No links

GET with execution



PUT



DELETE

DELETE with execution