

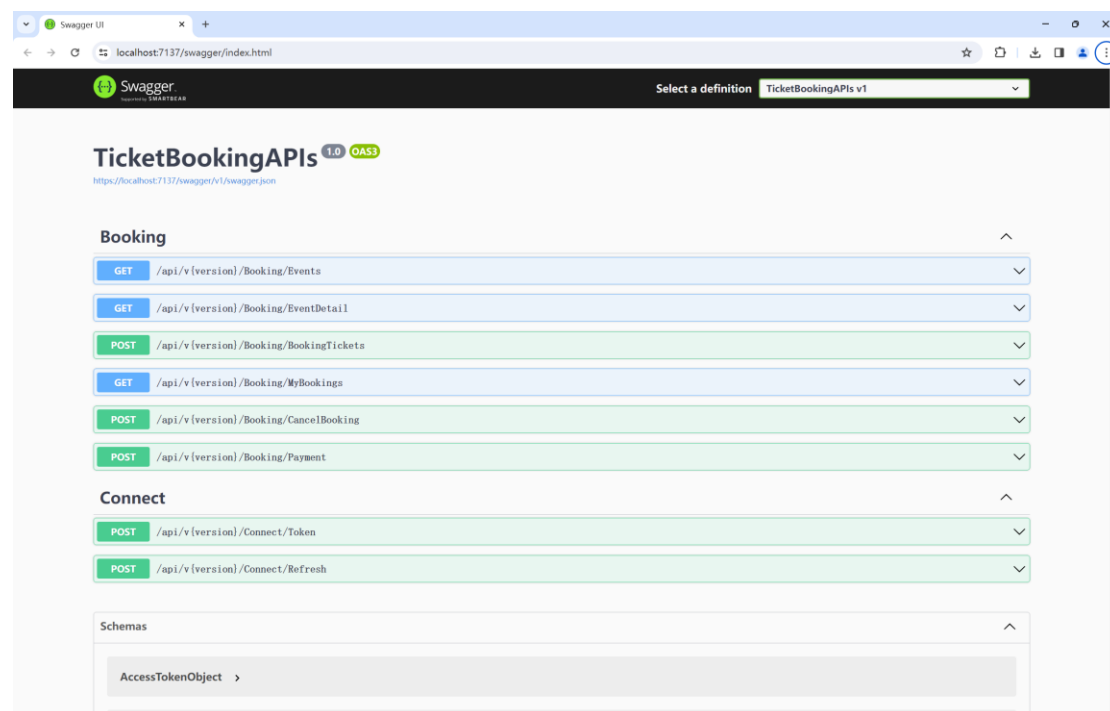
Introduction to Ticket Booking APIs

Github: <https://github.com/chen-xiaowei/TicketBookingAPIs/>

According to the business analysis, there are six requirements in total. These requirements will be implemented using Asp.NetCore API, with each requirement corresponding to one API interface. Requirements 1, 2, and 4 will use HTTP GET methods to retrieve data, while requirements 3, 5, and 6 will use HTTP POST methods to update data. The following is a list of functions that have been implemented in the home assignment:

- 1、Encapsulate ApiResponse as a unified return object for all interfaces.
- 2、Customized Authentication and Authorization services by jwt token authentication and role authorization.
- 3、Support AccessToken and RefreshToken.
- 4、The returned data of GET requests which support paging.
- 5、Logging supported by output to files, and automatically archive and create new log files when the log size exceeds 16MB.
- 6、Customize filters to clear the default values of Swagger request parameters.
- 7、Support multi-version management for APIs.
- 8、Support global exception handling.
- 9、Setting up default values for Token interface calling.

The screenshot of Swagger as below.



The screenshot shows the Visual Studio IDE with the following components:

- Top Menu Bar:** File (文件), Edit (编辑), View (视图), Git (Git), Project (项目), Build (生成), Test (测试), Analysis (分析), Tools (工具), Window (窗口), Help (帮助), Search (搜索), TicketBookingAPIs.
- Top Toolbar:** Standard Visual Studio development tools like Save, Undo, Redo, Run, etc.
- Top Tab Bar:** AccessTokens.cs, JwtService.cs, BookingController.cs, BookTicketRequests.cs, BaseController.cs, Events.cs, Programs.cs, UserRequests.cs.
- Main Editor:** Displays the code for 'TicketBookingAPIs\Controllers\BookingController.cs'. The code defines a 'BookingController' class that inherits from 'BaseController'. It includes a 'private readonly ILogger<BookingController> _logger;' and implements two endpoints:
 - GetEvents:** A GET endpoint for authorized users (Admin role) to retrieve a list of available events. It returns a list of 'Event' objects.
 - GetEventDetails:** A GET endpoint to retrieve details of a specific event by its ID. It returns an 'EventDetail' object.
- Right Sidebar:** Contains the 'Solution Explorer' showing the project structure:
 - 解决方案资源管理器 (Solution Explorer)
 - TicketBookingAPIs (1 个项目, 共 1 个)
 - Connected Services
 - Properties
 - App 设置 (App Settings)
 - Controllers
 - BaseController.cs
 - BookingController.cs
 - ConnectController.cs
 - Filters
 - DefaultValuesSchemaFilter.cs
 - Models
 - BookTicketRequests.cs
 - Events.cs
 - UserRequests.cs
 - Services
 - AccessTokens.cs
 - AppJwtService.cs
 - JwtService.cs
 - Metascs
 - AppJwtService.json
 - AppJwtService.json
 - Program.cs
 - TicketBookingAPIs.http
- Bottom Status Bar:** Shows the current file is 'TicketBookingAPIs.http' and the line number is 34.

Connect

Request body

Response body

```
{
  "Data": {
    "AccessToken": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJyb2xlIjoiaWRtaW4iLCJuYmYiOiJlMjE0MTA4MDAzMzIsImV4cCI6MTcxMjgwMzkzMiwiaWF0IjoxNzEyODAwMzMyLCJpc3MiOiJodHRwczovL2xvY2FsaG9zdDo3MTM3IiwiaXVkIjoiaHR0cHM6Ly9sb2NhbkphbnQ3Q6NmZlNyJ9.GLiZyr6-p9YwXlgDwRs0XKRAZu8jrBK6hiqjh00H0",
    "RefreshToken": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJyb2xlIjoiaUmVmcmVzaCIsIm5iZiI6MTcxMjgwMDMzMiwiaXhwIjoxNzEyODAwMTMyLCJpYXQiOiJlMjE0MTA4MDAzMzIsImV4cCI6MTcxMjgwMDMzMiwiaWF0IjoxNzEyODAwMTMyLCJpc3MiOiJodHRwczovL2xvY2FsaG9zdDo3MTM3IiwiaXVkIjoiaHR0cHM6Ly9sb2NhbkphbnQ3Q6NmZlNyJ9.GLiZyr6-p9YwXlgDwRs0XKRAZu8jrBK6hiqjh00H0"
  }
}
```

```
i8vbG9jYWxob3N0OjcxMzciLCJhdWQiOiJodHRwczovL2xvY2FsaG9zdDo3MTM3In0.maNjUTjkvnn4cDuH
djlIm1h6E2Lb-PPcbrAtXB_W_4",
  "TokenType": "Bearer",
  "ExpiresIn": 3599
},
"Meta": null,
"StatusCode": 200,
"Message": "Success",
"Errors": null
```

[HttpPost] https://localhost:7137/api/v1/Connect/Refresh

Request body

```
{
  "accessToken":
"eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJyb2xlIjojQWRtaW4iLCJuYmYiOiE3MTI4MDAzMzI
slmV4cCI6MTcxMjgwMzgzMiwiaWF0IjoxNzEyODAwMzMyLCJpc3MiOiJodHRwczovL2xvY2FsaG9zdDo3MTM3IiwiaXVkljoiaHR0cHM6Ly9sb2NhbkGhvc3Q6NzEzNyJ9.GLiZyr6-
p9YwX1gGDwRs0XKRAZu8jrBK6hiqjhmOOH0",
  "refreshToken":
"eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJyb2xlIjojUmVmcmVzaCIslm5iZiI6MTcxMjgwMD
MzMiwiZXhwIjoxNzEzNDA1MTMyLCJpYXQiOiE3MTI4MDAzMzIsIm1zcyI6Imh0dHBzOi8vbG9j
YWxob3N0OjcxMzciLCJhdWQiOiJodHRwczovL2xvY2FsaG9zdDo3MTM3In0.maNjUTjkvnn4c
DuHdjllm1h6E2Lb-PPcbrAtXB_W_4"
}
```

Response body

```
{
  "Data": {
    "AccessToken": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJyb2xlIjojQWRtaW4iLCJuYmY
iOiE3MTI4MDAzMzIsImV4cCI6MTcxMjgwMzgzMiwiaWF0IjoxNzEyODAwMzMyLCJpc3MiOiJodHRwczovL2
xvY2FsaG9zdDo3MTM3IiwiaXVkljoiaHR0cHM6Ly9sb2NhbkGhvc3Q6NzEzNyJ9.GLiZyr6-p9YwX1gGDwRs
0XKRAZu8jrBK6hiqjhmOOH0",
    "RefreshToken": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJyb2xlIjojUmVmcmVzaCIslm
5iZiI6MTcxMjgwMDMzMiwiZXhwIjoxNzEzNDA1MTMyLCJpYXQiOiE3MTI4MDAzMzIsIm1zcyI6Imh0dHBzO
i8vbG9jYWxob3N0OjcxMzciLCJhdWQiOiJodHRwczovL2xvY2FsaG9zdDo3MTM3In0.maNjUTjkvnn4cDuH
djlIm1h6E2Lb-PPcbrAtXB_W_4",
    "TokenType": "Bearer",
    "ExpiresIn": 3599
  },
  "Meta": null,
  "StatusCode": 200,
  "Message": "Success",
  "Errors": null
```

Booking

[HttpGet] <https://localhost:7137/api/v1/Booking/Events>

Request Body

Response body

```
{
  "Data": [
    {
      "EventID": 1,
      "EventName": "Name1",
      "TicketAvailability": true
    },
    {
      "EventID": 2,
      "EventName": "Name2",
      "TicketAvailability": true
    },
    {
      "EventID": 3,
      "EventName": "Name3",
      "TicketAvailability": true
    },
    {
      "EventID": 4,
      "EventName": "Name4",
      "TicketAvailability": true
    },
    {
      "EventID": 5,
      "EventName": "Name5",
      "TicketAvailability": true
    },
    {
      "EventID": 6,
      "EventName": "Name6",
      "TicketAvailability": true
    }
  ]
}
```

```
},
{
  "EventID": 7,
  "EventName": "Name7",
  "TicketAvailability": true
},
{
  "EventID": 8,
  "EventName": "Name8",
  "TicketAvailability": true
},
{
  "EventID": 9,
  "EventName": "Name9",
  "TicketAvailability": true
},
{
  "EventID": 10,
  "EventName": "Name10",
  "TicketAvailability": true
}
],
"Meta": {
  "CurrentPage": 1,
  "TotalPage": 1,
  "ItemsPerPage": 10,
  "TotalItems": 1
},
"StatusCode": 200,
"Message": "Success",
"Errors": null
```

[HttpGet] <https://localhost:7137/api/v1/Booking/EventDetail?eventId=1>

Request body

Response body

```
{
  "Data": [
    {
      "Date": "2024-04-11",
      "Time": "10:03:05",
```

```
"Venue": "No.8, Bao'an Avenue, Nansha District, Guangzhou.",
"TicketPrices": 20,
"EventID": 1,
"EventName": "Name1",
"TicketAvailability": true
},
{
  "Date": "2024-04-12",
  "Time": "10:03:05",
  "Venue": "No.9, Bao'an Avenue, Nansha District, Guangzhou.",
  "TicketPrices": 21,
  "EventID": 1,
  "EventName": "Name2",
  "TicketAvailability": true
},
{
  "Date": "2024-04-13",
  "Time": "10:03:05",
  "Venue": "No.10, Bao'an Avenue, Nansha District, Guangzhou.",
  "TicketPrices": 22,
  "EventID": 1,
  "EventName": "Name3",
  "TicketAvailability": true
},
{
  "Date": "2024-04-14",
  "Time": "10:03:05",
  "Venue": "No.11, Bao'an Avenue, Nansha District, Guangzhou.",
  "TicketPrices": 23,
  "EventID": 1,
  "EventName": "Name4",
  "TicketAvailability": true
},
{
  "Date": "2024-04-15",
  "Time": "10:03:05",
  "Venue": "No.12, Bao'an Avenue, Nansha District, Guangzhou.",
  "TicketPrices": 24,
  "EventID": 1,
  "EventName": "Name5",
  "TicketAvailability": true
},
{
  "Date": "2024-04-16",
```

```
    "Time": "10:03:05",
    "Venue": "No.13, Bao'an Avenue, Nansha District, Guangzhou.",
    "TicketPrices": 25,
    "EventID": 1,
    "EventName": "Name6",
    "TicketAvailability": true
  },
  {
    "Date": "2024-04-17",
    "Time": "10:03:05",
    "Venue": "No.14, Bao'an Avenue, Nansha District, Guangzhou.",
    "TicketPrices": 26,
    "EventID": 1,
    "EventName": "Name7",
    "TicketAvailability": true
  },
  {
    "Date": "2024-04-18",
    "Time": "10:03:05",
    "Venue": "No.15, Bao'an Avenue, Nansha District, Guangzhou.",
    "TicketPrices": 27,
    "EventID": 1,
    "EventName": "Name8",
    "TicketAvailability": true
  },
  {
    "Date": "2024-04-19",
    "Time": "10:03:05",
    "Venue": "No.16, Bao'an Avenue, Nansha District, Guangzhou.",
    "TicketPrices": 28,
    "EventID": 1,
    "EventName": "Name9",
    "TicketAvailability": true
  },
  {
    "Date": "2024-04-20",
    "Time": "10:03:05",
    "Venue": "No.17, Bao'an Avenue, Nansha District, Guangzhou.",
    "TicketPrices": 29,
    "EventID": 1,
    "EventName": "Name10",
    "TicketAvailability": true
  }
],
```

```
"Meta": {
  "CurrentPage": 1,
  "TotalPage": 1,
  "ItemsPerPage": 10,
  "TotalItems": 1
},
"StatusCode": 200,
"Message": "Success",
"Errors": null
```

[HttpPost] <https://localhost:7137/api/v1/Booking/BookingTickets>

Request body

```
{
  "userID": 1,
  "eventID": 1,
  "ticketType": 1,
  "quantity": 10
}
```

Response body

```
{
  "Data": {
    "BookID": 1
  },
  "Meta": null,
  "StatusCode": 200,
  "Message": "Success",
  "Errors": null
}
```

[HttpGet] <https://localhost:7137/api/v1/Booking/MyBookings?userID=1>

Request body

Response body

```
{
  "Data": [
    {
      "BookID": 0,
      "EventName": "Name1",

```



```

    "UserID": 0,
    "EventID": 1,
    "TicketType": 2,
    "Quantity": 1
  },
  {
    "BookID": 0,
    "EventName": "Name2",
    "UserID": 0,
    "EventID": 2,
    "TicketType": 2,
    "Quantity": 2
  },
  {
    "BookID": 0,
    "EventName": "Name3",
    "UserID": 0,
    "EventID": 3,
    "TicketType": 2,
    "Quantity": 3
  }
],
"Meta": {
  "CurrentPage": 1,
  "TotalPage": 1,
  "ItemsPerPage": 10,
  "TotalItems": 1
},
"StatusCode": 200,
"Message": "Success",
"Errors": null
}

```

[HttpPost] <https://localhost:7137/api/v1/Booking/CancelBooking>

Request body

```

{
  "userID": 1,
  "bookID": 1
}

```

Response body

```

{

```

```
"Meta": null,  
"StatusCode": 200,  
"Message": "Success",  
"Errors": null  
}
```

[HttpPost] https://localhost:7137/api/v1/Booking/Payment

Request body

```
{  
  "userID":10,  
  "bookID": 10,  
  "totalPrices": 10000  
}
```

Response body

```
{  
  "Meta": null,  
  "StatusCode": 200,  
  "Message": "Success",  
  "Errors": null  
}
```