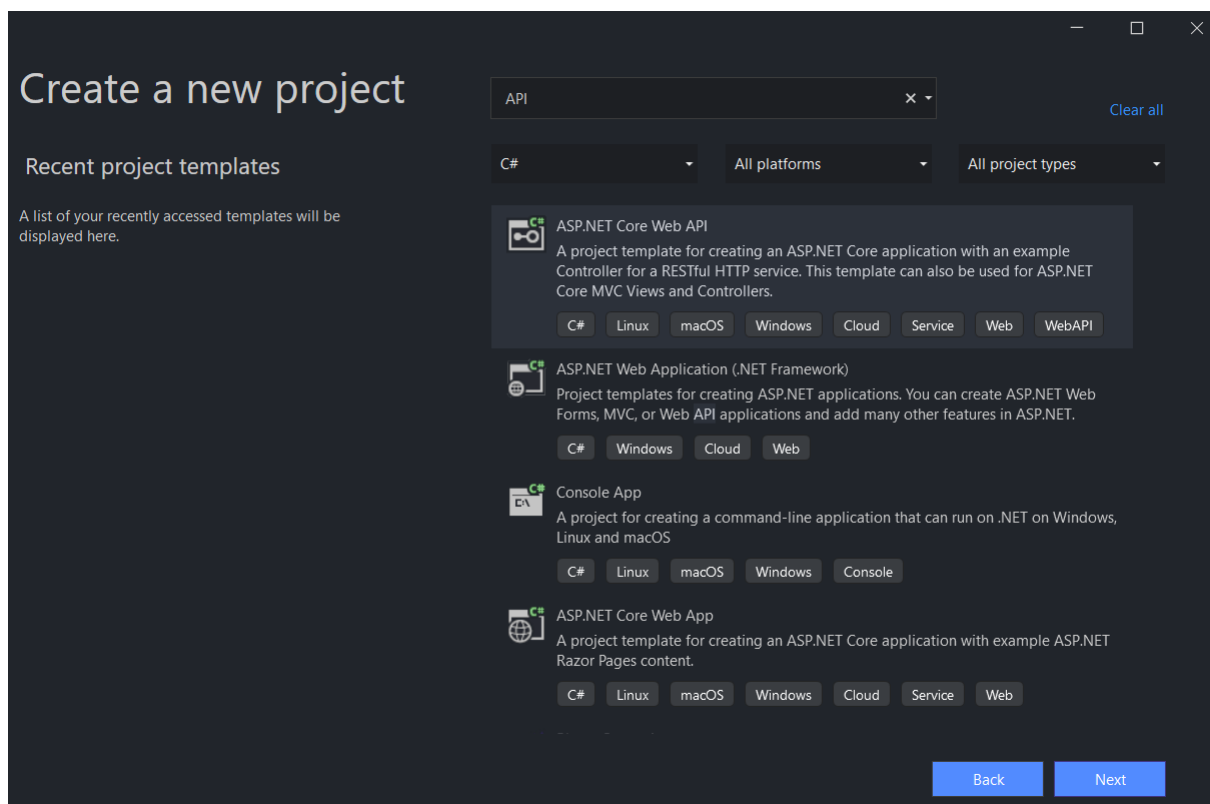
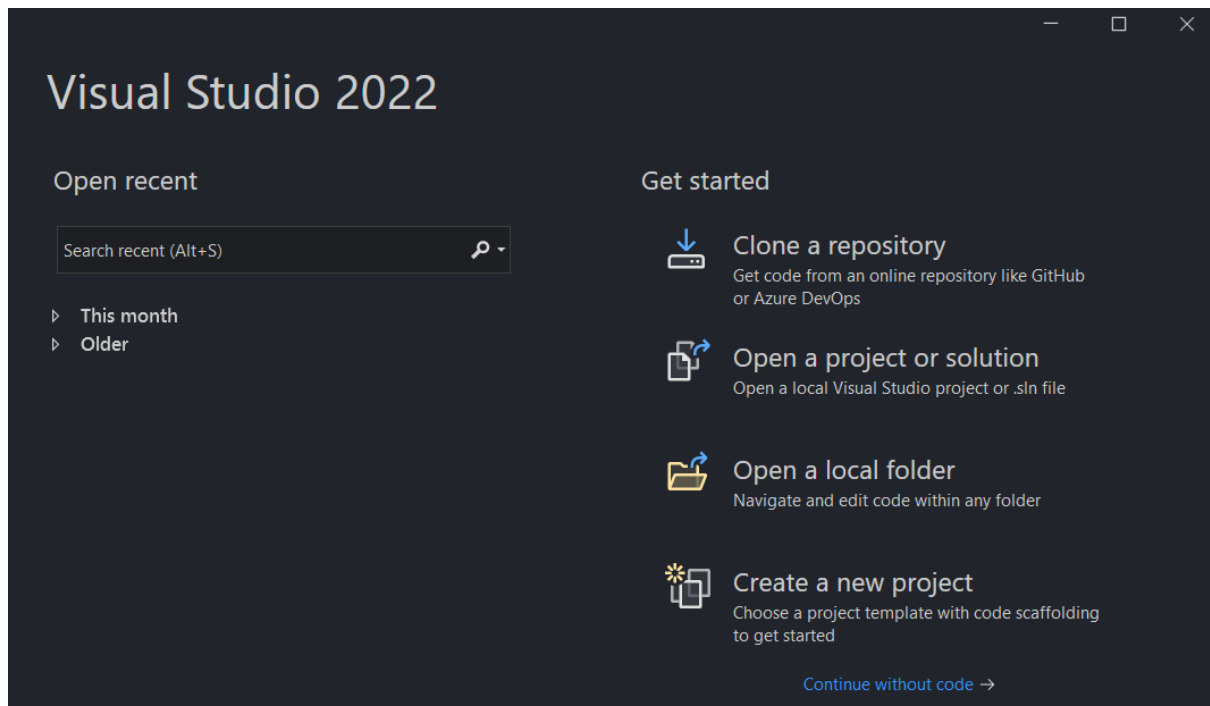


Chapter 01: Introduction to Minimal APIs



Configure your new project

ASP.NET Core Web API

C#

Linux

macOS

Windows

Cloud

Service

Web

WebAPI

Project name

Chapter01

Location

C:\TEMP\

Solution name ⓘ

Chapter01

☐ Place solution and project in the same directory

Back

Next

Additional information

ASP.NET Core Web API

C#

Linux

macOS

Windows

Cloud

Service

Web

WebAPI

Framework ⓘ

.NET 6.0 (Long-term support)

Authentication type ⓘ

None

☒ Configure for HTTPS ⓘ

☐ Enable Docker ⓘ

Docker OS ⓘ

Linux

☐ Use controllers (uncheck to use minimal APIs) ⓘ

☒ Enable OpenAPI support ⓘ

Back

Create

Chapter 02: Exploring Minimal APIs and Their Advantages

No-images...

Chapter 03: Working with Minimal APIs

— □ ×

Additional information

ASP.NET Core Web API

C# Linux macOS Windows Cloud Service Web

Framework ⓘ

.NET 6.0 (Long-term support) ▾

Authentication type ⓘ

None ▾

☒ Configure for HTTPS ⓘ

☐ Enable Docker ⓘ


Docker OS ⓘ

Linux ▾

☐ Use controllers (unchecked to use minimal APIs) ⓘ

☒ Enable OpenAPI support ⓘ

Back Create

 **Swagger**
Supported by SMARTBEAR

Select a definition

SwaggerSample v1 ▾
SwaggerSample v1

SwaggerSample ^{v1} ^{OAS3}

/swagger/v1/swagger.json

PacktPub Minimal API - Swagger

[Terms of service](#)
[PacktAuthor - Website](#)
[Send email to PacktAuthor](#)

No operations defined in spec!

Sample



GET /sampleresponse



Parameters

Try it out

No parameters

Responses

Code	Description	Links
200	Success	No links

Media type

application/json

Controls Accept header.

Example Value | Schema

```
{
  "value": "string"
}
```

SwaggerSample



GET /{id}



POST /



Schemas



ResponseData >

Schemas

ComplexResponseData ▾ {

value	string nullable: true
number	integer(\$int32)
money	number(\$double)
date	string(\$date-time)

}

ResponseData ▾ {

value	string nullable: true
-------	--------------------------

}

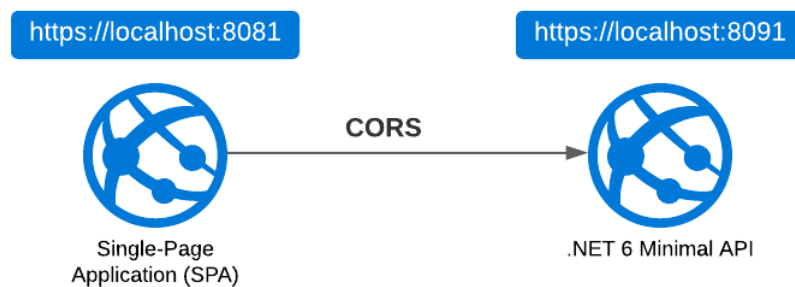
Sample

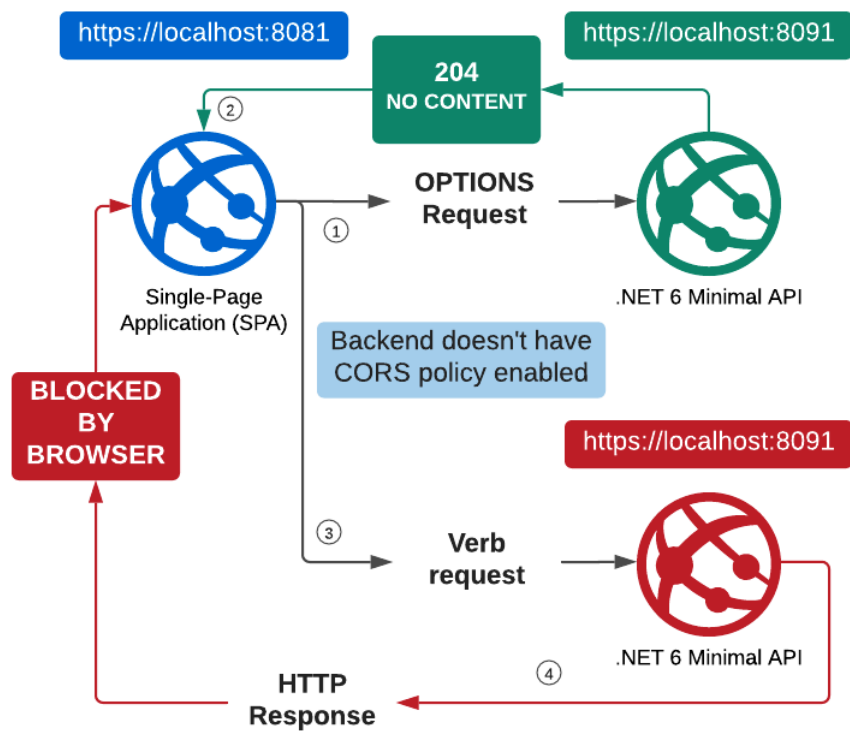
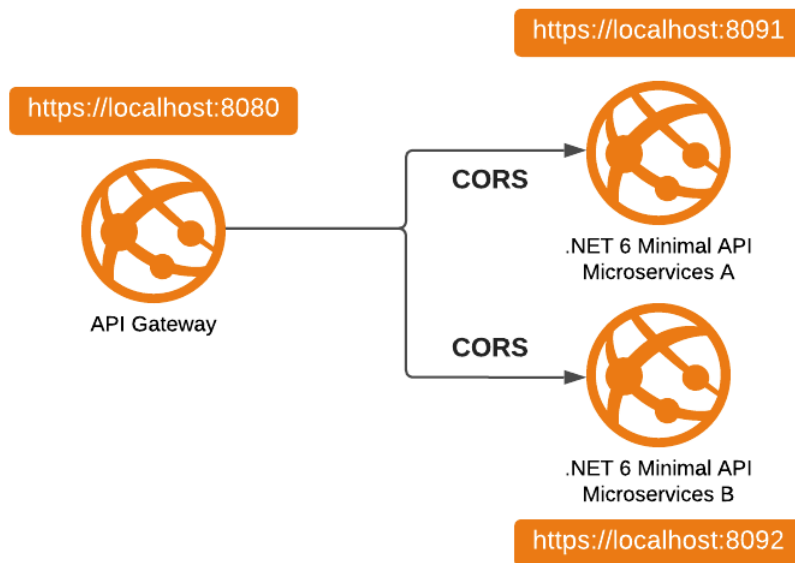
GET /sampleresponse

Parameters

Name	Description
X-correlation-id	Default value : 42
String (header)	<input type="text" value="42"/>

[Try it out](#)





Network tab interface showing a list of requests on the left and details for a selected request on the right.

Request List:

- cors (highlighted with a green box)
- cors (highlighted with a red box)

Request Details (Selected Request):

- Name:** cors
- General:**
 - Request URL: http://localhost:5300/api/cors
 - Request Method: OPTIONS
 - Status Code: 204 No Content (highlighted with a red box)
 - Remote Address: [::1]:5300
 - Referrer Policy: strict-origin-when-cross-origin
- Response Headers:**
 - Date: Fri, 24 Dec 2021 13:25:21 GMT
 - Server: Kestrel
- Request Headers:**
 - Accept: */*
 - Accept-Encoding: gzip, deflate, br
 - Accept-Language: en-US,en;q=0.9
 - Access-Control-Request-Headers: access-control-allow-origin,content-type
 - Access-Control-Request-Method: GET
 - Connection: keep-alive
 - Host: localhost:5300

2 requests 0 B transferred 0 B received

Network tab interface showing details for a selected request.

Request List:

- cors (highlighted with a red box)
- cors

Request Details (Selected Request):

- Name:** cors
- General:**
 - Request URL: http://localhost:5300/api/cors (highlighted with a red box)
 - Referrer Policy: strict-origin-when-cross-origin (highlighted with a red box)
- Request Headers:**
 - Provisional headers are shown [Learn more](#)
 - Access-Control-Allow-Origin: *
 - Content-Type: application/json
 - Referer: http://localhost:5200/
 - sec-ch-ua: " Not A;Brand";v="99", "Chromium";v="96", "Microsoft Edge";v="96"
 - sec-ch-ua-mobile: ?0
 - sec-ch-ua-platform: "Windows"
 - User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/96.0.4664.110 Safari/537.36 Edg/96.0.1054.62

Headers Preview Response Initiator Timing

cors

cors

General

Request URL: http://localhost:5300/api/cors

Request Method: OPTIONS

Status Code: 204 No Content

Remote Address: [::1]:5300

Referrer Policy: strict-origin-when-cross-origin

Response Headers View source

Access-Control-Allow-Headers: access-control-allow-origin,content-type

Access-Control-Allow-Methods: GET

Access-Control-Allow-Origin: http://localhost:5200

Date: Fri, 24 Dec 2021 15:14:44 GMT

Server: Kestrel

Request Headers View source

Accept: */*

Accept-Encoding: gzip, deflate, br

Accept-Language: en-US,en;q=0.9

Access-Control-Request-Headers: access-control-allow-origin,content-type

2 requests 234 B transferred 23 B

PacktPubConfiguration | Configuration

App Service

Search (Ctrl+F) Refresh Save Discard Leave Feedback

Overview Activity log Access control (IAM) Tags Diagnose and solve problems Security Events (preview) Deployment Quickstart Deployment slots Deployment Center Settings Configuration Authentication Application Insights (preview) Identity Backups Backups (preview)

Application settings General settings Path mappings

Application settings

Application settings are encrypted at rest and transmitted over an encrypted channel. You can choose to display them in plain text in your browser by using the controls below. Application Settings are exposed as environment variables for access by your application at runtime. [Learn more](#)

+ New application setting Hide values Advanced edit

Filter application settings

Name	Value	Source	Deployment slot setting	Delete	Edit
MyCustomRuntimeObject_CustomProperty	Property value	App Service Config	✓		

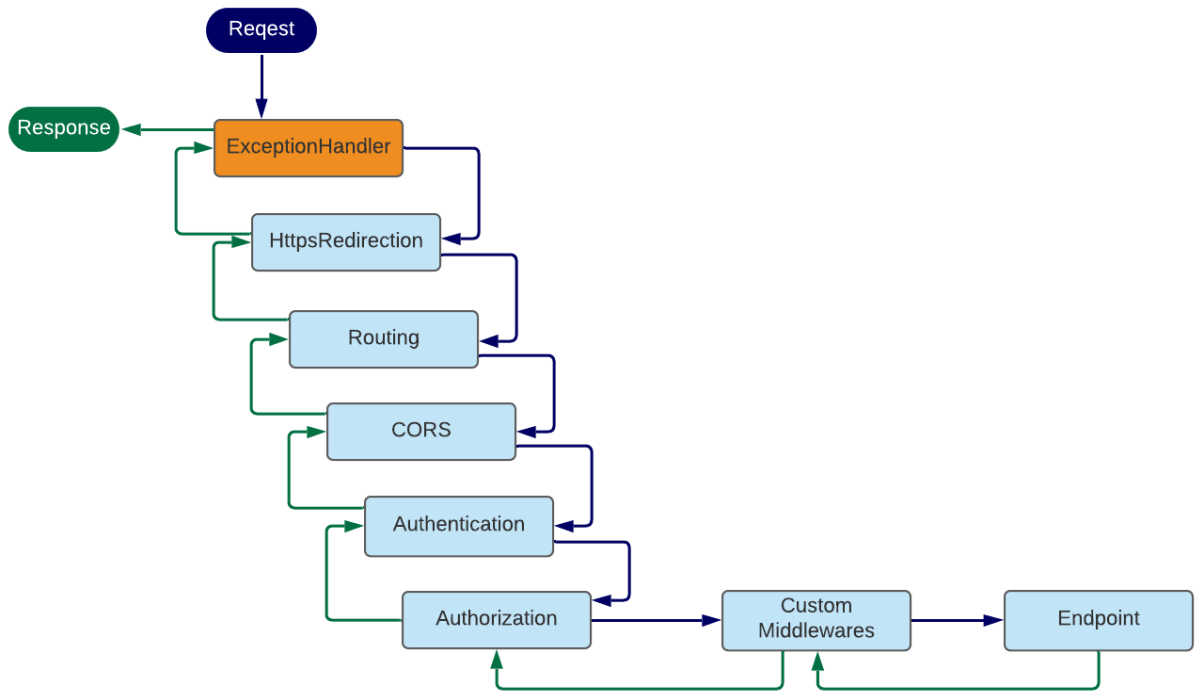
Connection strings

Connection strings are encrypted at rest and transmitted over an encrypted channel.

+ New connection string Hide values Advanced edit

Filter connection strings

Name	Value	Source	Type	Deploy...	Delete	Edit
Default	MyConnectionString	App Service Config	SQL Azure			



Chapter 04: Dependency Injection in a Minimal API Project

No-images...

Chapter 05: Using Logging to Identify Errors

```
D:\Packt\Minimal-APIs-in-ASP.NET-Core-6\Chapter05\...
{
  "EventId": 0,
  "LogLevel": "Information",
  "Category": "CategoryFiltered",
  "Message": "I\u0027m information My Name Information",
  "State": {
    "Message": "I\u0027m information My Name Information",
    "MyName": "My Name Information",
    "{OriginalFormat}": "I\u0027m information {MyName}"
  }
}
{
  "EventId": 0,
  "LogLevel": "Information",
  "Category": "CategoryFiltered",
  "Message": "I\u0027m debug PayloadData",
  "State": {
    "Message": "I\u0027m debug PayloadData",
    "Data": "PayloadData",
    "{OriginalFormat}": "I\u0027m debug {Data}"
  }
}
{
  "EventId": 0,
  "LogLevel": "Information",
  "Category": "LoggingSamples.Categories.MyCategoryAlert",
  "Message": "I\u0027m information Alert Information",
  "State": {
    "Message": "I\u0027m information Alert Information",
    "MyName": "Alert Information",
    "{OriginalFormat}": "I\u0027m information {MyName}"
  }
}
{
  "EventId": 0,
  "LogLevel": "Debug",
  "Category": "LoggingSamples.Categories.MyCategoryAlert",
  "Message": "I\u0027m debug Alert Debug",
  "State": {
    "Message": "I\u0027m debug Alert Debug",
    "MyName": "Alert Debug",
    "{OriginalFormat}": "I\u0027m debug {MyName}"
  }
}
{
  "EventId": 0,
  "LogLevel": "Debug",
  "Category": "LoggingSamples.Categories.MyCategoryAlert",
  "Message": "I\u0027m debug PayloadData",
  "State": {
    "Message": "I\u0027m debug PayloadData",
    "Data": "PayloadData",
    "{OriginalFormat}": "I\u0027m debug {Data}"
  }
}
}
```

```

Select D:\Packt\Minimal-APIs-in-ASP.NET-Core-6\Chapter05\LoggingSamples\bin\Debug\...
info: Microsoft.Hosting.Lifetime[14]
      Now listening on: https://localhost:7210
info: Microsoft.Hosting.Lifetime[14]
      Now listening on: http://localhost:5210
info: Microsoft.Hosting.Lifetime[0]
      Application started. Press Ctrl+C to shut down.
info: Microsoft.Hosting.Lifetime[0]
      Hosting environment: Development
info: Microsoft.Hosting.Lifetime[0]
      Content root path: D:\Packt\Minimal-APIs-in-ASP.NET-Core-6\Chapter05\LoggingSamples\
info: CategoryFiltered[0]
      I'm information My Name Information
info: CategoryFiltered[0]
      I'm debug PayloadData
info: LoggingSamples.Categories.MyCategoryAlert[0]
      I'm information Alert Information
dbug: LoggingSamples.Categories.MyCategoryAlert[0]
      I'm debug Alert Debug
dbug: LoggingSamples.Categories.MyCategoryAlert[0]
      I'm debug PayloadData

```

```

D:\Packt\Minimal-APIs-in-ASP.NET-Core-6\Chapter05\LoggingProvider\logs\log-2022-01-05.txt - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
log-2022-01-05.txt
1 Microsoft.Hosting.Lifetime - Now listening on: https://localhost:7208
2 Microsoft.Hosting.Lifetime - Now listening on: http://localhost:5208
3 Microsoft.Hosting.Lifetime - Application started. Press Ctrl+C to shut down.
4 Microsoft.Hosting.Lifetime - Hosting environment: Development
5 Microsoft.Hosting.Lifetime - Content root path: D:\Packt\Minimal-APIs-in-ASP.NET-Core-6\Chapter05\LoggingProvider\
6 CategoryFiltered - I'm information
7 CategoryFiltered - I'm warning
8 CategoryFiltered - I'm error
9 CategoryFiltered - I'm error
10
Normal text file length: 526 lines: 10 Ln: 10 Col: 1 Pos: 527 Windows (CR LF) UTF-8 INS

```

Microsoft Azure

Home > Microsoft.AppInsights > minimal-packt

End-to-end transaction details

Search results

Filtered on

- timestamp > 5/1/2022, 184...
- timestamp < 5/1/2022, 191...
- Operation name == GET /application-insight-log
- client_Type != ...
- Duration >= 730ms

Suggested

1/5/2022, 7:17:28 PM
GET /application-insight-log
Duration: 750.5 ms Response code: 200

All

Sort by @
Relevance

End-to-end transaction

Operation ID: 56ec4db512b62fe4743e9597e9efaad

15 All 14 Traces 0 Events

Filter to a specific component and call
All [Component] Call

Static files were skipped as the request already matched an endpoint.

INFORMATION 7:17:28.599 PM | localhost:7244
Executing endpoint 'HTTP: GET /application-insight-log'

INFORMATION 7:17:28.663 PM | localhost:7244
I'm information My Name Information

VERBOSE 7:17:28.666 PM | localhost:7244
I'm debug My Name Debug

INFORMATION 7:17:28.674 PM | localhost:7244
I'm debug PayloadData

VERBOSE 7:17:28.696 PM | localhost:7244
I'm debug PayloadData

INFORMATION 7:17:28.793 PM | localhost:7244
Executing result with status code '200'.

INFORMATION 7:17:28.797 PM | localhost:7244
Executed endpoint 'HTTP: GET /application-insight-log'

VERBOSE 7:17:28.853 PM | localhost:7244
Connection id "0HMEGETTNFQR8" sending HEADERS frame for stream ID 7 with length 38 and flags EID_STREAM, EID_HEADERS.

INFORMATION 7:17:28.876 PM | localhost:7244
Request finished HTTP/2 GET https://localhost:7244/application-insight-log - - 200 0 - 726.148ms

TRACE

Trace Properties

Event time 1/5/2022, 7:17:28.674 PM (Local time)

Device type PC

Message I'm debug PayloadData

Severity level Information

Custom Properties

AspNetCoreEnvironment Development

CategoryName CategoryFiltered

RequestPath /application-insight-log

RequestId 0HMEGETTNFQR8.00000007

OriginalFormat I'm debug (Data)

ParentId 0000000000000000

TraceId 56ec4db512b62fe4743e9597e9efaad

SpanId 0eba4ddef745e78d

ConnectionId 0HMEGETTNFQR8

DeveloperMode true

Data PayloadData

Microsoft Azure

Home > minimal-packt

End-to-end transaction details

Search results

Filtered on

- timestamp > 6/1/2022, 092...
- timestamp < 6/1/2022, 095...
- Operation name == GET /serilog
- client_Type != ...

Suggested

1/6/2022, 9:37:19 AM
GET /serilog
Duration: 71.6 ms Response code: 200

All

Sort by @
Relevance

End-to-end transaction

Operation ID: 6402fe981ed4d6a97578576529c8a1e5

8 All 7 Traces 0 Events

Filter to a specific component and call
All [Component] Call

REQUEST 9:53:44.393 AM | localhost:7256
GET /serilog

INFORMATION 9:53:44.393 AM | localhost:7256
Request starting HTTP/2 GET https://localhost:7256/serilog - -

INFORMATION 9:53:44.444 AM | localhost:7256
Executing endpoint "HTTP: GET /serilog"

INFORMATION 9:53:44.480 AM | localhost:7256
I'm information "My Name Information"

INFORMATION 9:53:44.503 AM | localhost:7256
I'm debug "PayloadData"

INFORMATION 9:53:44.599 AM | localhost:7256
I'm Person { Name: "Andrea", Surname: "Tosato", Birthdate: 11/09/1986 00:00:00 }

INFORMATION 9:53:44.629 AM | localhost:7256
Executing result with status code '200'.

INFORMATION 9:53:44.652 AM | localhost:7256
Executed endpoint "HTTP: GET /serilog"

TRACE

Trace Properties

Event time 1/6/2022, 9:53:44.599 AM (Local time)

Device type PC

Message I'm Person { Name: "Andrea", Surname: "Tosato", Birthdate: 11/09/1986 00:00:00 }

Severity level Information

Custom Properties

DeveloperMode true

RequestPath /serilog

SourceContext CategoryFiltered

MessageTemplate I'm (@Person)

ConnectionId 0HMEGU83NST1R

RequestId 0HMEGU83NST1R.00000007

AspNetCoreEnvironment Development

Person { "Name": "Andrea", "Surname": "Tosato", "Birthdate": "1986-11-09T00:00:00.0000000", "type": "Person" }

Related Items

- All available telemetry for this user session
- All available telemetry 5 minutes before and after this event

Chapter 06: Exploring Validation and Mapping

Responses

Code	Description
204	Success
400	Bad Request

Media type

▾

Example Value | Schema

```
{
  "type": "string",
  "title": "string",
  "status": 0,
  "detail": "string",
  "instance": "string",
  "errors": {
    "additionalProp1": [
      "string"
    ],
    "additionalProp2": [
      "string"
    ],
    "additionalProp3": [
      "string"
    ]
  },
  "additionalProp1": "string",
  "additionalProp2": "string",
  "additionalProp3": "string"
}
```

POST /people


Schemas

Person ▾ {

- firstName* string
maxLength: 30
- lastName* string
maxLength: 30
- email string(\$email)
maxLength: 100
minLength: 6
nullable: true

}

Chapter 07: Integration with the Data Access Layer

 Swagger
Supported by SMARTBEAR

Select a definition Chapter07 v1

Chapter07 1.0 OAS3

<https://localhost:7180/swagger/v1/swagger.json>

Chapter07

POST

/icecreams

⌵

GET

/icecreams

⌵

GET

/icecreams/{id}

⌵

PUT

/icecreams/{id}

⌵

DELETE

/icecreams/{id}

⌵

Schemas

Icecream >

Chapter07

POST

/icecreams

⌵

Parameters

Cancel

Reset

No parameters

Request body required

application/json

```
{  "id": 0,  "name": "icecream 1",  "description": "description 1"}
```

Execute

Responses

Code	Description	Links
200	Success	No links

GET

/icecreams/{id}

Parameters

Cancel

Name	Description
<div><div>id * required</div><div>integer(\$int32)</div><div>(path)</div></div>	<div>1</div>

Execute

Clear

Responses

Curl

```
curl -X 'GET' \
  'https://localhost:7180/icecreams/1' \
  -H 'accept: application/json'
```

Request URL

```
https://localhost:7180/icecreams/1
```

Server response

Code	Details
200	<div><div>Response body</div><div><pre>{ "id": 1, "name": "icecream 1", "description": "description 1" }</pre></div><div><div>Download</div></div></div> <div><div>Response headers</div><div><pre>content-type: application/json; charset=utf-8 date: Mon, 29 Aug 2022 21:02:41 GMT server: Kestrel</pre></div></div>

Chapter 08: Adding Authentication and Authorization

Error: response status is 401

Response headers

```
content-length: 0
date: Sat, 05 Feb 2022 18:04:00 GMT
server: Kestrel
www-authenticate: Bearer
```

Curl

```
curl -X 'POST' \
  'https://localhost:7241/api/auth/login' \
  -H 'accept: */*' \
  -H 'Content-Type: application/json' \
  -d '{
    "username": "marco",
    "password": "P@$$w0rd"
  }'
```

Request URL

```
https://localhost:7241/api/auth/login
```

Server response

Code

Details

200

Response body

```
{
  "accessToken": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJodl1UxjcR4Xoa78aYTqZqKo8"
}
```

Chapter08 1.0 OAS3

<https://localhost:7241/swagger/v1/swagger.json>

Authorize



Chapter08

POST

/api/auth/login



GET

/api/attribute-protected



GET

/api/method-protected



Available authorizations



Bearer (apiKey)

Insert the token with the 'Bearer ' prefix

Name: Authorization

In: header

Value:

Authorize

Close

Chapter 09: Leveraging Globalization and Localization

GET /culture

Parameters

Try it out

Name	Description
Accept-Language string (header)	Available values : en, it, fr Default value : en

en

GET /culture

Parameters

Execute

Responses

Curl

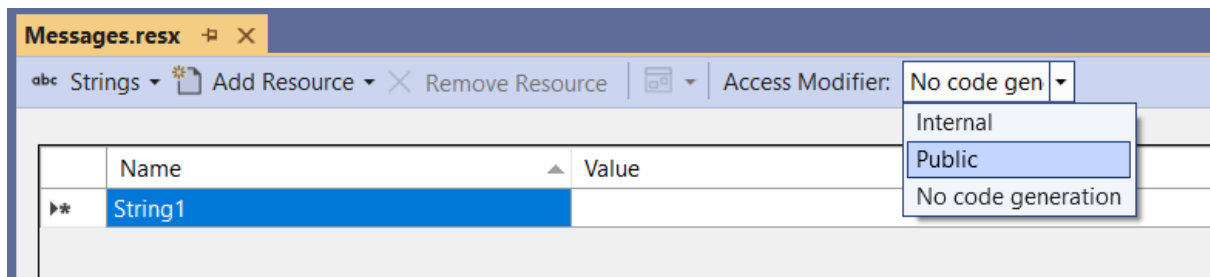
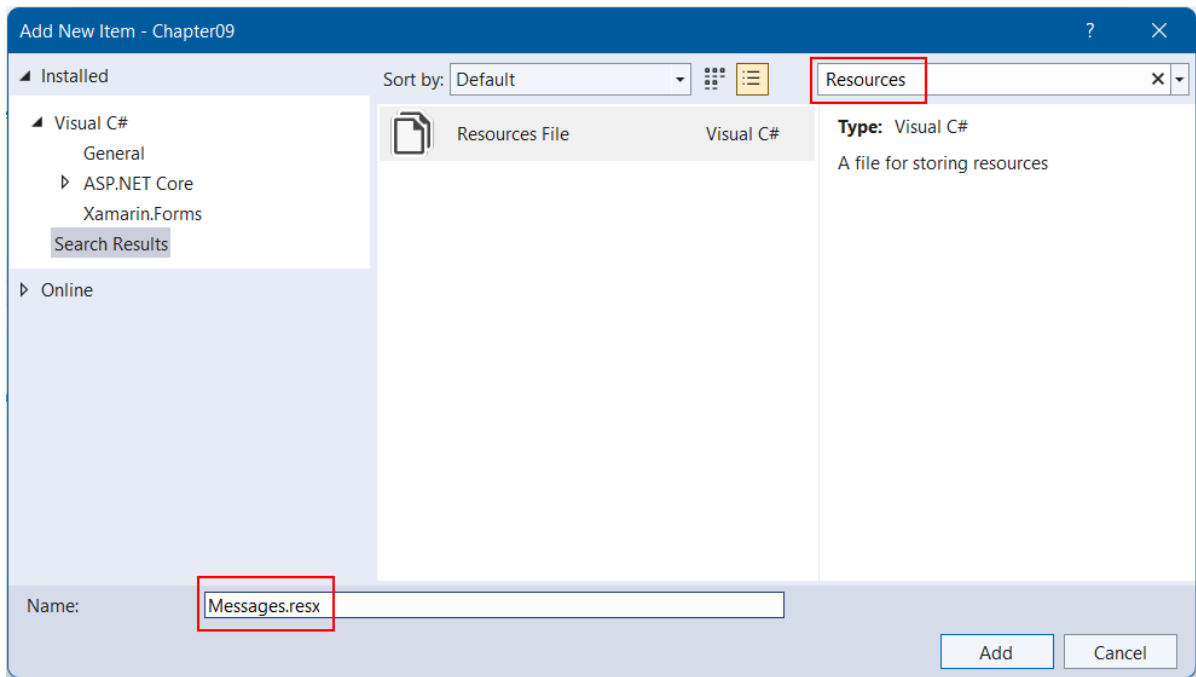
```
curl -X 'GET' \
  'https://localhost:7153/api/culture' \
  -H 'accept: text/plain' \
  -H 'Accept-Language: it'
```

Request URL

```
https://localhost:7153/api/culture
```

Server response

Code	Details
200	Response body italiano



Chapter 10: Evaluating and Benchmarking the Performance of Minimal APIs

```

      /\      /\      |  /  /  /  /
     /\  /\    |  /  /  /  /  /
    /\  /\  /\  |  /  /  /  /  /
   /\  /\  /\  |  /  /  /  /  /
  /\  /\  /\  |  /  /  /  /  /
 /\  /\  /\  |  /  /  /  /  /
/\  /\  /\  |  /  /  /  /  /
|_____|_____|.io

execution: local
script: .\K6\Controllers\plain-text.js
output: -


scenarios: (100.00%) 1 scenario, 50 max VUs, 1m55s max duration (incl. graceful stop):
 * default: Up to 50 looping VUs for 1m25s over 3 stages (gracefulRampDown: 30s, gracefulStop: 30s)

running (1m25.0s), 00/50 VUs, 65763 complete and 0 interrupted iterations
default ✓ [=====] 00/50 VUs 1m25s

✓ status is 200

checks.....: 100.00% ✓ 65763 x 0
data_received.....: 17 MB 199 kB/s
data_sent.....: 8.8 MB 104 kB/s
http_req_blocked.....: avg=14.61µs p(95)=0s
http_req_connecting.....: avg=435ns p(95)=0s
✓ http_req_duration.....: avg=27.49ms p(95)=61.14ms
 { expected_response:true }...: avg=27.49ms p(95)=61.14ms
http_req_failed.....: 0.00% ✓ 0 x 131526
http_req_receiving.....: avg=2.81ms p(95)=15.02ms
http_req_sending.....: avg=57.61µs p(95)=511.77µs
http_req_tls_handshaking.....: avg=11.91µs p(95)=0s
http_req_waiting.....: avg=24.62ms p(95)=52.3ms
http_reqs.....: 131526 1547.339322/s
iteration_duration.....: avg=55.23ms p(95)=90.79ms
iterations.....: 65763 773.669661/s
vus.....: 1 min=1 max=50
vus_max.....: 50 min=50 max=50

```

```
 .io
```

```
execution: local  
script:   :\\K6\\Controllers\\json.js  
output: -  
  
scenarios: (100.00%) 1 scenario, 50 max VUs, 1m55s max duration (incl. graceful stop):  
    * default: Up to 50 looping VUs for 1m25s over 3 stages (gracefulRampDown: 30s, gracefulStop: 30s)  
  
running (1m25.0s), 00/50 VUs, 68618 complete and 0 interrupted iterations  
default ✓ [=====] 00/50 VUs  1m25s  
  
✓ status is 200  
  
checks.....: 100.00% ✓ 68618      x 0  
data_received.....: 32 MB  370 kB/s  
data_sent.....: 8.9 MB  105 kB/s  
http_req_blocked.....: avg=12.69µs p(95)=0s  
http_req_connecting.....: avg=393ns p(95)=0s  
✓ http_req_duration.....: avg=26.34ms p(95)=61.26ms  
  { expected_response:true }...: avg=26.34ms p(95)=61.26ms  
http_req_failed.....: 0.00% ✓ 0      x 137236  
http_req_receiving.....: avg=3.32ms p(95)=17.28ms  
http_req_sending.....: avg=55.22µs p(95)=509.02µs  
http_req_tls_handshaking.....: avg=9.82µs p(95)=0s  
http_req_waiting.....: avg=22.96ms p(95)=50.95ms  
http_reqs.....: 137236  1614.481769/s  
iteration_duration.....: avg=52.93ms p(95)=88.53ms  
iterations.....: 68618  807.240885/s  
vus.....: 1 min=1 max=50  
vus_max.....: 50 min=50 max=50
```



```
execution: local
script: .\K6\Controllers\validations.js
output: -
```

```
scenarios: (100.00%) 1 scenario, 50 max VUs, 1m55s max duration (incl. graceful stop):
* default: Up to 50 looping VUs for 1m25s over 3 stages (gracefulRampDown: 30s, gracefulStop: 30s)
```

```
running (1m25.0s), 00/50 VUs, 68095 complete and 0 interrupted iterations
default ✓ [=====] 00/50 VUs 1m25s
```

```
✓ status is 200
✓ is key correct
```

```
checks.....: 100.00% ✓ 136190      x 0
data_received.....: 19 MB    220 kB/s
data_sent.....: 20 MB    230 kB/s
http_req_blocked.....: avg=16.56µs  p(95)=0s
http_req_connecting.....: avg=378ns   p(95)=0s
✓ http_req_duration.....: avg=26.52ms p(95)=47.33ms
  { expected_response:true }...: avg=26.52ms p(95)=47.33ms
http_req_failed.....: 0.00% ✓ 0      x 136190
http_req_receiving.....: avg=422.21µs p(95)=1.15ms
http_req_sending.....: avg=70.68µs  p(95)=539.1µs
http_req_tls_handshaking.....: avg=13.64µs  p(95)=0s
http_req_waiting.....: avg=26.03ms  p(95)=46.18ms
http_reqs.....: 136190 1602.173921/s
iteration_duration.....: avg=53.34ms  p(95)=74.92ms
iterations.....: 68095 801.086961/s
vus.....: 1      min=1      max=50
vus_max.....: 50    min=50     max=50
```



```
execution: local
script: .\K6\Minimal\plain-text.js
output: -
```

```
scenarios: (100.00%) 1 scenario, 50 max VUs, 1m55s max duration (incl. graceful stop):
* default: Up to 50 looping VUs for 1m25s over 3 stages (gracefulRampDown: 30s, gracefulStop: 30s)
```

```
running (1m25.0s), 00/50 VUs, 97129 complete and 0 interrupted iterations
default ✓ [=====] 00/50 VUs 1m25s
```

```
✓ status is 200
```

```
checks.....: 100.00% ✓ 97129      x 0
data_received.....: 25 MB    292 kB/s
data_sent.....: 13 MB    154 kB/s
http_req_blocked.....: avg=10.84µs  p(95)=0s
http_req_connecting.....: avg=264ns   p(95)=0s
✓ http_req_duration.....: avg=18.59ms p(95)=32.93ms
  { expected_response:true }...: avg=18.59ms p(95)=32.93ms
http_req_failed.....: 0.00% ✓ 0      x 194258
http_req_receiving.....: avg=223.05µs p(95)=997.1µs
http_req_sending.....: avg=50.97µs  p(95)=507.8µs
http_req_tls_handshaking.....: avg=8.35µs   p(95)=0s
http_req_waiting.....: avg=18.31ms  p(95)=32.36ms
http_reqs.....: 194258 2285.289624/s
iteration_duration.....: avg=37.39ms  p(95)=52.54ms
iterations.....: 97129 1142.644812/s
vus.....: 1      min=1      max=50
vus_max.....: 50    min=50     max=50
```