ASP.NET Core Interview Questions & Answers

ASP.NET Core





ASP.NET Core Interview Questions & Answers

All rights reserved. No part of this book can be reproduced or stored in any retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, uploading on server and scanning without the prior written permission of the Dot Net Tricks Innovation Pvt. Ltd.

The author of this book has tried their best to ensure the accuracy of the information described in this book. However, the author cannot guarantee the accuracy of the information contained in this book. The author or Dot Net Tricks Innovation Pvt. Ltd. will not be liable for any damages, incidental or consequential caused directly or indirectly by this book.

Further, readers should be aware that the websites or reference links listed in this book may have changed or disappeared between when this book was written and when it is read.

All other trademarks referred to in this book are the property of their respective owners.

Release History

- Initial Release 1.0 30th Nov 2018
- Second Release 1.1 4th Jan 2019
- Third Release 2.0 20th Dec 2019





About Dot Net Tricks

Dot Net Tricks is founded by Shailendra Chauhan (Microsoft MVP), on Jan 2010. Dot Net Tricks came into existence in the form of a blog post over various technologies including .NET, C#, SQL Server, ASP.NET, ASP.NET MVC, JavaScript, Angular, Node.js and Visual Studio, etc.

The company which is currently registered by a name of Dot Net Tricks Innovation Pvt. Ltd. came into the shape in 2015. Dot Net Tricks website has an average footfall on the tune of 300k+ per month. The site has become a cornerstone when it comes to getting skilled-up on .NET technologies and we want to gain the same level of trust in other technologies. This is what we are striving for.

We have a very large number of trainees who have received training from our platforms and immediately got placement in some of the reputed firms testifying our claims of providing quality training. The website offers you a variety of free study material in the form of articles.

Dot Net Tricks Courses

Master in-demand job skills with our step by step and project-based courses. Learn to start a new career, with our curated learning paths tailored to today's developers and technology needs. Learn to code, prepare yourself for interviews, and get hired!

We offer the courses in the following categories:

- .NET Development
- Front-end Development
- Cloud
- DevOps
- Programming Languages
- Database SQL and NoSQL
- Mobile Development
- ML/AI and many more...

You can start learning free from here: https://www.dotnettricks.com/courses

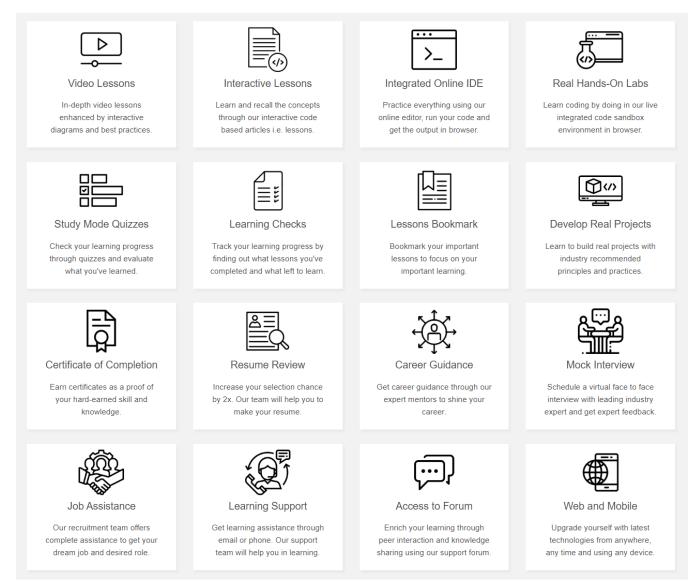
Dot Net Tricks Pro

DotNetTricks Pro unlocks the access of DotNetTricks premium features like unlimited access to all courses, source codes, and assessments. Get help over email or phone. Upgrade your skills with curated learning paths tailored to today's developers and technology needs. Learn new skills and discover the world of possibilities with step-by-step guidance.



Dot Net Tricks Pro Features

Each Pro member will get access to our full-featured learning platform with advanced tools, which is required to learn new skills and advance his/her career.



Start your journey today to learn coding. Because learning to code is the first step and forward to advance your career.

The detail about DotNetTricks Pro can be found here: https://www.dotnettricks.com/pro-membership



Dot Net Tricks Live Training

Instructor-led Training Programs

For a beginner who needs regular guidance, we have a fully packed Master Courses. They are almost equal to semester courses taught in engineering colleges when it comes to length, breadth of content delivery, the only difference instead of 5-6 months, they take approx. 6 weeks of live classes.

The detail about Master courses can be found here: https://www.dotnettricks.com/instructor-led-courses

Corporate Training

Dot Net Tricks having a pool of mentors who help the corporate to enhance their employment skills as per changing the technology landscape. Dot Net Tricks offers customized training programs for new hires and experienced employees through online and classroom mode. As a trusted and resourceful training partner, Dot Net Tricks helps the corporate to achieve success with its industry-leading instructional design and customer training initiatives.

Apart from these, we also provide on-demand boot camps and personalized project consultation.

The detail about Corporate Training can be found here: https://www.dotnettricks.com/corporate-training

Dot Net Tricks eBooks

Dot Net Tricks offer a wide range of eBooks on technical interviews Q&A. All eBooks are written by industry experts and coaches. These eBooks will help you to prepare yourself for your next job within a short time. We offer the eBooks in the following categories:

- .NET Development
- Front-end Development
- Cloud
- DevOps
- Programming Languages
- Database SQL and NoSQL
- Mobile Development
- ML/AI and many more...

You can buy other eBooks from here: https://www.dotnettricks.com/books

Technical Recruiting

We provide full technical staffing service which suits our client needs. Our technical recruiters search across the world to find highly skilled professionals that will fit our clients need. If you are looking for a job change, do share your resume at hr@dotnettricks.com. Dot Net Tricks will help you to find your dream job in MNCs.

Join us today, learn to code, prepare yourself for interviews, and get hired!



Dedication

I would like to say many thanks to my mother Mrs Saryuben Trivedi and my wife Mrs Poorvi for their support. They deserve to have their name on the cover as much as I do for all their support made this possible. I would also like to say thanks to all my family members Girish Kumar Trivedi (father), Rakesh and Tejas (brother) for their continuous guidance and support to achieve my goals.

-Jignesh Trivedi







Introduction

What Where Author Qualification to Write This Book

Jignesh Trivedi is awarded as MVP by Microsoft for his exceptional contribution in Microsoft technologies under the category "Developer Technologies" for the year 2016, 2017, 2018 and 2019. He has more than 12 years of experience on Microsoft technologies such as ASP.NET, MVC, ASP.NET Core, TypeScript, Blazor, SQL server etc. and other technologies such as Angular and AngularJS, HTML, CSS, jQuery etc.

He is also a blogger and author of articles on various technologies. He is also a speaker and delivered talk on various technologies like ASP.NET Core, Angular, MVC etc. in the public events.

What This Book Is

ASP.NET Core is an open-source, cross-platform framework for building web applications using C# and .NET. This book will teach you ASP.NET Core concepts from scratch to advance with the help of Interview Questions & Answers. Here, you will about the routing, tag helpers, middleware, session, dependency injection, authentication, authorization, unit testing and deployment. This book covers ASP.NET Core versions starting from 1.0 to 3.0.

What You'll Learn

This book is for .NET developers who are looking for a change or want to make a bright future in ASP.NET Core. This book covers the interview questions on the following topics:

- ASP.NET Core features details.
- How to configure middleware and routing.
- How to enable session and configure your application environment.
- A JS framework like a way to write server-side code to create and render the HTML using Tag Helper.
- How to reuse your code using Partial views and view component.
- Different ways to apply validations and binding data to server-side action methods.
- How to implement localization and globalization.
- Handle exceptions and logging errors.
- Dependency Injection implementation.
- Ways to secure your application and using filters.
- Using Unit testing frameworks and running tests.
- Various Deployment Options.

Our best wishes always with you for your learning and growth!



About the Author

Jignesh Trivedi - An Author, Architect, and Microsoft MVP



Jignesh Trivedi is working as a software developer with a leading organization and having more than 12 years of experience. He is very passionate about the Microsoft Technologies. He is author, speaker and MVP.

He has experience to develop enterprise application using Microsoft technologies such ASP.net Core, C#, SQL server, etc. and other technologies such as Angular, node.js, etc.

He loves building great products and POC (proof of concepts) using the best available technologies. He loves to share his knowledge by contributing to Developer community.

He always tries to keep updated himself about new technologies and learning new skills and shared with other in simple manner. He hopes that this e-book helps you to crack interview of ASP.NET Core.



How to Contact Us

Although the author of this book has tried to make this book as accurate as it possible but if there is something strikes you as odd, or you find an error in the book please drop a line via e-mail.

The e-mail addresses are listed as follows:

- mentor@dotnettricks.com
- info@dotnettricks.com

We are always happy to hear from our readers. Please provide your valuable feedback and comments!

You can follow us on YouTube, Facebook, Twitter, LinkedIn and Google Plus or subscribe to RSS feed.





Table of Contents

ASP.N	ET Core Interview Questions & Answers	1
Rel	lease History	1
Abo	out Dot Net Tricks	2
Dot	t Net Tricks Courses	2
Dot	t Net Tricks Pro	2
Dot	t Net Tricks Live Training	
Dot	t Net Tricks eBooks	
Ted	chnical Recruiting	2
Dec	dication	
Inti	roduction	6
	out the Author	
	w to Contact Us	
Introd	ucing ASP.NET Core	17
Q1.	What is the ASP.NET Core?	17
Q2.	What are the features provided by ASP.NE <mark>T Core?</mark>	17
Q3.	What is Metapackages?	17
Q4.	Can ASP.NET Core application work with full .NET 4.x Framework?	17
Q5.	Explain the advantages of ASP.NET Core over ASP.NET?	18
Q6.	What is the use of the startup class in ASP.NET core?	18
Q7.	What is the use of ConfigureServices method of startup class?	18
Q8.	What is the use of the Configure method of startup class?	18
Q9.	Can we configure service and request pipeline without defining Startup class?	18
Q10.	What is new in ASP.net Core 3.0 compared to Core 2.2?	19
Q11.	Does ASP.net Core support response compression?	20
Q12.	How can we do response compression in ASP.net core?	20
Q13.	What is CoreCLR?	20
Q14.	Where project static files are stored in ASP.net Core?	21
Q15.	What is Swagger?	21
Middle	eware and Routing	22
Q1.	How to add middleware to the application request pipeline?	22









	Q16.	What are built-in validation attributes provided with ASP.net Core?	48
	Q17.	How can we create a custom validation attribute?	48
	Q18.	How can we disable client-side validation?	48
Œ	lobali	zation and Localization	. 49
	Q1.	What is Internationalization in ASP.NET Core?	49
	Q2.	What is a resource file naming convention?	49
	Q3.	How can we achieve localization in view?	49
	Q4.	How can we access a localized resource string in Controller?	50
	Q5.	Can we localize error messages defined in Data Annotation?	50
	Q6.	How does culture fallback mechanism work in ASP.net Core?	51
	Q7.	What happens when resource not found in a culture resource file?	51
	Q8.	How can we return the resource key when resource not found in culture file?	51
	Q9.	Can we add Content-Language header With ASP.net core? If yes, how?	51
	Q10.	What is Neutral culture?	51
E	xcepti	ion Handling and Logging Framework	. 52
	Q1.	What is "Developer Exception Page" in ASP.NET Core?	52
	Q2.	How can we configure custom exception handling page in ASP.NET Core?	52
	Q3.	Can we define custom exception without using defining error page?	53
	Q4.	How to configure the logging framework in ASP.NET Core?	53
	Q5.	What are the possible values for Log level enum for the Logging framework?	54
	Q6.	How many built-in extension methods provided by the logging framework of ASP.NET Core?	54
	Q7.	What is the use of enum value LogLevel.None?	54
	Q8.	How to set default minimum log level for Logging Framework?	54
	Q9.	How to define filter rule for the Logging framework in ASP.NET Core?	55
	Q10.	What is log scope in the Logging framework?	56
	Q11.	What are third party logging frameworks supported by ASP.NET Core?	57
	Q12.	What are built-in logging providers supported by ASP.net Core?	57
С	epen	dency Injection	. 58
	Q1.	How does dependency injection work in ASP.NET Core?	58
	Q2.	How many types of service containers available in ASP.NET Core?	58
	Q3.	How can we inject the service dependency into the controller?	58



Q4.	Can we inject the dependency to individual action method of the controller?	59
Q5.	Can we get a service instance without dependency injection in the controller action method?	59
Q6.	How to specify a service life for register service that added as a dependency?	59
Q7.	How can we inject the service dependency into the View?	60
Q8.	What point you will be taken care while creating service for DI?	61
Securit	ty and Filters	62
Q1.	What is the use of a filter in ASP.NET Core application?	62
Q2.	Explain about the filter types available in ASP.NET Core application	62
Q3.	In which sequence all the filters are invoked?	62
Q4.	How can we create a custom filter in ASP.net Core?	63
Q5.	Does the filter support asynchronous implementation?	63
Q6.	How to implement the asynchronous filter in ASP.NET Core?	63
Q7.	Explain about the Filter scope?	63
Q8.	How to define filter at Global level in ASP.NET Core?	64
Q9.	What is the Default order of filter execution?	64
Q10.	Can we override the default order of execution of filter in ASP.NET Core?	64
Q11.	Does the built-in filter also implement the interface IOrderFilter?	65
Q12.	Can we cancel the execution of filter or short-circuiting filters?	65
Q13.	Can we inject the dependency to the filter attribute?	65
Q14.	Can you apply a filter attribute having constructor dependency to the controller or action?	65
Q15.	What is exception filter in ASP.NET Core?	65
Q16.	What is a limitation of Exception filter?	66
Q17.	How the exception filter differs from an action filter?	66
Q18.	What kind of exception can be catch using exception filter?	66
Q19.	What is the use of Result Filter in ASP.NET Core?	66
Q20.	What are Authentication and Authorization?	66
Q21.	How can we configure built-in identity service for ASP.NET Core application?	67
Q22.	What is the difference between AddIdentity and AddDefaultIdentity?	67
Q23.	How can we override default configuration for Identity?	67
Q24.	How can we configure windows authentication in ASP.NET Core application?	68
Q25.	How can we enforce Https for all requests in ASP.net Core?	69



	Q26.	Is there any alternative approach for enforcing Https other than injecting middleware?	69
	Q27.	How can we enable CORS in ASP.net core app?	70
	Q28.	How to prevent ASP.net Core app from Cross-Site Request Forgery (CSRF)?	70
L	Init Te	esting	72
	Q1.	What Unit Testing frameworks can be used with ASP.NET Core?	72
	Q2.	How can we write a unit test with the MSTest framework?	72
	Q3.	Can we create an MSTest project using command line interface (CLI)?	72
	Q4.	How can we verify the test in MSTest?	72
	Q5.	How to run the unit test?	73
	Q6.	Can we write a data-driven test using MSTest?	73
	Q7.	How can we write a unit test with xUnit framework?	74
	Q8.	How can we verify the test in xUnit?	74
	Q9.	Can we write a data-driven test using xUnit?	74
	Q10.	How can we write a unit test with NUnit framework?	74
	Q11.	How can we verify the test in NUnit?	75
	Q12.	Can we write a data-driven test using NUnit?	75
	Q13.	What is the use of setup attribute in NUnit framework?	75
	Q14.	How can we create a test for the controller that has service dependency?	75
	Q15.	What is a Mock (or moq) object in a unit test?	76
	Q16.	What are the Integration tests?	76
	Q17.	How Integration tests different from a unit test?	76
	Q18.	What is the load test and stress test?	77
	Q19.	What are the tools used for web performance testing?	77
	eploy	ment	78
	Q1.	What are the different techniques for hosting an ASP.NET Core application?	78
	Q2.	What is Kestrel?	78
	Q3.	How to add Kestrel server in ASP.NET Core application?	78
	Q4.	Can we bind TCP socket with Kestrel server?	79
	Q5.	What is HTTP.sys server?	79
	Q6.	What are the features are supported by HTTP.sys server?	79
	Q7.	How to host an application using HTTP.sys server?	79



	Q8.	How to host ASP.NET Core application as a Windows service?	79
	Q9.	What is ASP.NET Core Module?	80
	Q10.	What is In-process hosting model in ASP.net Core?	80
	Q11.	What is an out-of-process hosting model in ASP.net core?	80
R	efere	nces	81



