

# Microsoft Blazor

## Chapter 02

Q1. What is WebAssembly?

- A. A binary format optimized for browser execution
- B. The render tree built on the server using regular .NET and serialized to the browser
- C. What are roles of Serve, Client and Shared project in Blazor web assembly app?
- D. A new ECMA based script capable of executing .NET language instructions

Answer: A

Q2. Which one does a Web Assembly App **not** allow?

- A. Call to JavaScript methods
- B. Run as a Progressive Web Application (PWA).
- C. use all the .NET APIs you would use with regular ASP.NET Core MVC applications
- D. None of the above

Answer: C

[Blazor Server app can access all .net API. But wasm does]

Q3. Which one does a Web Assembly App not allow?

- A. Call to JavaScript methods
- B. Run as a Progressive Web Application (PWA).
- C. All modern debugging capabilities
- D. None of the above

Answer: C

[Blazor wasm runs on browser, not all debugging is available]

Q4. Which instructions add blazor middleware that serves required special files to client to blazor application?

- A. MapFallbackToFile
- B. UseBlazorFrameworkFiles
- C. UseWebAssemblyDebugging
- D. MapRazorPages

Answer: B

Q5. Which script tag should you use to install Blazor by downloading dotnet.wasm?

- A. <script src="\_content/blazor.webassembly.js"></script>
- B. <script src="\_framework/blazor.webassembly.js"></script>
- C. <script src="\_js/blazor.webassembly.js"></script>
- D. <script src="\_blazor.webassembly.js"></script>

Answer: B

Q6. Which component install the router component in Blazor wasm application.

- A. MainLayout
- B. App
- C. NavLink
- D. The fallback file Index.html

Answer: B

Q6. What is Hot Reload?

- A. The feature that allows you to debug Blazor wasm app
- B. The feature that enhance downloading wasm to client

- C. The feature with .Net 6 that update running your application as soon as you make changes to your code and markup
- D. None of the above

Answer: C

Q7. Which command in dotnet cli do you use to start hot reload?

- A. dotnet start
- B. dotnet run
- C. dotnet watch
- D. dotnet debug

Answer: C

Q8. Which statement uses a null forgiving operator?

- A. `string? name = null;`
- B. `string? name = default;`
- C. `string? name = null!`
- D. `string name = default;`

Answer: C

Q9. Consider the code

`string[]? cities;`

Which code will produce errors?

- A. `Console.WriteLine(cities.Length);`
- B. `Console.WriteLine(cities?.Length);`
- C. `if(cities is not null) Console.WriteLine(cities.Length);`
- D. `if(cities != null) Console.WriteLine(cities.Length);`

Answer: A

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## Chapter 03, 04

Q1. Any class that derives from the \_\_\_\_\_ class becomes a Blazor component?

- A. Page
- B. Component
- C. ComponentBase
- D. ControllerBase

Answer: C

Q2. Each razor file in Blazor is a \_\_\_\_\_?

- A. Component
- B. Page class instance
- C. AppComponent
- D. LayoutComponent

Answer: A

Q2. What does a Blazor component contain?

- A. Only markup
- B. Only code
- C. Both markup and code
- D. Either markup or code

Answer: C

Q3. What should you do to pass data to a component?

- A. Component parameter
- B. @inject directive
- C. using Component construction
- D. by injecting service

Q4. Parent and child components typically communicate through \_\_\_\_\_.

- A. by injecting service
- B. data binding
- C. through dependency injection
- D. event callback

Answer: B

Q5. Why is a component parameter used?

- A. Parent component pass data to a child component using component parameter
- B. Parent component handles child component's event through component parameter
- C. Parent component detect changes through component parameter
- D. None of the above

Answer: A

Q6. How can you manually trigger the UI to update?

- A. There is no way to trigger update, the Blazor runtime updates the UI automatically when an event triggers, like the button click
- B. By calling the StateHasChanged method.
- C. By overriding AfterRenderAsync
- D. None of the above

Answer: B

Q6. What is the use of EventCallback<T>?

- A. To pass data to a component
- B. To detect changes of component parameter
- C. To trigger UI update
- D. For parent- child communication, such as events and two-way data binding

Answer: D

Q7. What should be used to expose events across components?

- A. Event
- B. Component parameter
- C. EventCallback
- D. Two-way data binding

Answer: C

Q8. Which one is used to call a parent component's method from a child component?

- A. Event
- B. Component parameter
- C. EventCallback
- D. Two-way data binding

Answer: C

Q9. What do you use when you require a reference to an HTML element or Blazor component?

- A. @bind
- B. @bind-Value
- C. @ref
- D. @id

Answer: C

Q10. Which one is to when a higher-level component needs to share some data with a deeper nested component?

- A. Parameter
- B. Data-binding
- C. Cascading Parameters
- D. All of the above

Answer: C

Q11. When a component's OnInitialized/OnInitializedAsync life cycle hook method are called?

- A. After component has been created and the parameters have been set
- B. After component has been created but before the parameters have been set
- C. Before component has been created and the parameters have been set
- D. After the parameters have been set but before component has been created

Answer: A

Q12. Which life cycle method should you use to invoke JavaScript code that needs access to elements from the DOM?

- A. OnInitialized/OnInitializedAsync
- B. OnParametersSet/OnParametersSetAsync
- C. OnAfterRender/OnAfterRenderAsync
- D. ShouldRender

Answer: C

Q13. Which component type allows you to pass one or more UI templates as parameters?

- A. Layout component
- B. Templated component
- C. Normal Blazor component
- D. All of the above

Answer: B

Q14. A \_\_\_\_\_represents a segment of UI to render..

- A. render fragment
- B. component
- C. cascading parameter
- D. data-binding

Answer: A

Q15. The pig-wig syntax starts with \_\_\_\_\_.

- A. @:
- B. @{:
- C. @:@{
- D. @@

Answer: C

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## Chapter 05

Q1. What is the role of a Service object's role?

- A. encapsulate specific business rules or how data is communicated between the client and the server
- B. handle user request and trigger an action on the server
- C. persist data for a view
- D. pass data to a component

Answer: A

Q2. What is the role of An Inversion-of-Control Container (IoCC)?

- A. specializes in creating objects that is passed through Dependency injection
- B. encapsulate specific business rules or how data is communicated between the client and the server
- C. persist data for a view
- D. handle user request and trigger an action on the server

Answer: A

Q3. Which is a constructor Dependency injection?

- A. `public class AService { public AService(Dependency dep){...}}`
- B. `[Inject] public IProductsService ProductService { get; set; }`
- C. `@inject IProductsService ProductService`
- D. `public class AService { Dependency dep = new Dependency();}`

Answer: A

Q4. Which is a property Dependency injection?

- A. `public class AService { public AService(Dependency dep){...}}`
- B. `[Inject] public IProductsService ProductService { get; set; }`
- C. `public IProductsService ProductService { get; set; }`
- D. `public class AService { Dependency dep = new Dependency();}`

Answer: B

Q5. Which is a constructor Dependency injection?

- A. `public class AService { public AService(Dependency dep){...}}`
- B. `public IProductsService ProductService { get; set; }`
- C. `@inject IProductsService ProductService`
- D. `public class AService { Dependency dep = new Dependency();}`

Answer: C

Q6. What is a Singleton Dependency?

- A. classes that only have one instance
- B. classes that has instance per scope but uses new instances between different scopes
- C. Instance of classes which are short lived, which might not even survive beyond a single method call.
- D. None of the above

Answer: A

Q7. What is a scoped Dependency?

- A. classes that only have one instance
- B. classes that has instance per scope but uses new instances between different scopes

- C. Instance of classes which are short lived, which might not even survive beyond a single method call.
- D. None of the above

Answer: B

Q8. What is a Transient Dependency?

- A. classes that only have one instance
- B. classes that has instance per scope but uses new instances between different scopes
- C. Instance of classes which are short lived, which might not even survive beyond a single method call.
- D. None of the above

Answer: C

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## Chapter 06, 07

Q1. Which one is not true for REST?

- A. REST is built on top of the HTTP protocol
- B. REST invokes actions on servers
- C. REST can retrieve data from server
- D. REST only uses GET and POST http verbs

Answer: D

Q2. With \_\_\_\_\_, you CREATE something on a server

- A. POST
- B. GET
- C. PUT
- D. DELETE

Answer: A

Q3. With \_\_\_\_\_, you READ data back from a server

- A. POST
- B. GET
- C. PUT
- D. DELETE

Answer: B

Q4. With \_\_\_\_\_, you UPDATE something on the server.

- A. POST
- B. GET
- C. PUT
- D. DELETE

Answer: C

Q5. What are HTTP headers?

- A. Instruction to work with data stored in a database
- B. a status code about the result of a request
- C. instructions exchanged between the client and the server.
- D. type of data is sent to client from the server

Answer: C

Q6. What does the HttpClient Class do?

- A. host Web API controller
- B. acts as a IoCC container for services
- C. communication between the client and server passes through the HttpClient class
- D. serializes server sent data as Jason objects

Answer: C

Q7. What does HttpClientJsonExtensions methods do?

- A. exposes server data to client
- B. converts between .NET objects and JSON
- C. allows client to create JSON objects easily
- D. applies authorization to data access

Answer: B

Q8. Why do you use the GetFromJsonAsync extension method?



- A. extracts JSON object from a HttpResponseMessage object's body asynchronously
- B. serialize .NET object as JSON in the request body to the specified URI.
- C. makes an asynchronous GET request to the specified URL
- D. converts between .NET objects and JSON

Answer: C

Q9. What is required for Customizing JSON Serialization?

- A. System.Text.JsonSerilizer
- B. JsonSerializerOptions
- C. JSON converter
- D. JSON options

Answer: B

Q10. How can you easily switch implementation of the service type required in your component?

- A. Using .Net reflection API
- B. using dependency injection.
- C. Using generic service
- D. Using microservice

Answer: B

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## Chapter 08

Q1. What is a Single-Page Web Application?

- A. a web application that replaces certain parts of the UI without reloading the complete page.
- B. a web application that can run offline once loaded in a browser
- C. a web application that is independent from a server.
- D. a web application that runs only over secure connection

Answer: A

Q2. SPAs use \_\_\_\_\_ to implement this manipulation of the browser's control tree, also known as the Document Object Model (DOM).

- A. jQuery
- B. JavaScript
- C. WebSocket
- D. Angular or react libraries

Answer: B

Q3. What do you use in the Blazor application for UI elements that you can find on every page, such as a header, footer, copyright, menu, etc?

- A. Component
- B. Layout Component
- C. Layout page
- D. Master page

Answer: B

Q4.. Blazor Layout Components inherit from \_\_\_\_\_.

- A. ComponentBase
- B. LayoutComponentBase
- C. Page
- D. ControllerBase

Answer: B

Q5. Anything you can do with a regular component you can do with a layout component.

- A. True
- B. False

Answer: A

Q6. A component can change the layout component for itself?

- A. True
- B. False

Answer: A

Q7. In which component file, the Default Layout Componen is configured?

- A. App.razor
- B. \_Imports.html
- C. Index.html
- D. Layout.razor

Answer: A

Q8. Which directive is used to set a Layout for a component?

- A. @layout
- B. @defaultLayout

- C. @master
- D. @use

Answer: A

Q9. Single-Page Applications use \_\_\_\_\_ to select which component gets picked to fill in the layout component's Body property?

- A. routing
- B. NavigationManager
- C. NavLink
- D. route constraint

Answer: A

Q10. What is a route template?

- A. A route template is a string matching a URI, and that can contain parameters, which you can then use in your component.
- B. A route template template is string pattern to match controller and action
- C. A route template that a component use help locations itself.
- D. None of the above

Answer: A

Q11. What is used to limit the type of parameter to match.?

- A. Route parameter
- B. Route data
- C. Route constraints
- D. Route pattern

Answer: C

Q12. Which one is not a valid route constraint?

- A. datetime
- B. decimal
- C. guid
- D. currency

Answer: D

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## Chapter 09

Q1. What is the condition of the javascript function so that it can be called from .NET code?

- A. the function must be JSON serializable.
- B. the arguments the function accepts must be JSON serializable
- C. the function must return .JSON serializable type
- D. All of the above

Answer: B

Q2. What is required to call a JavaScript function?

- A. IJSObjectReference
- B. IJSRuntime
- C. blazor.webassembly.js
- D. JavaScript modules

Answer: B

Q3. You use the .NETIJSRuntime instance \_\_\_\_\_.

- A. by call default constructor
- B. provided through dependency injection
- C. provided factory service
- D. dynamically using .NET reflection

Answer: B

Q4. To call JavaScript functions synchronously, you need \_\_\_\_\_.

- A. IJSRuntime
- B. IJSObjectReference
- C. IJSInProcessRuntime
- D. JsonSerializer

Answer: C

Q5. What are methods exposed by IJSRuntime?

- A. InvokeAsync<T>
- B. InvokeVoidAsync
- C. InvokeVoidAsync<T>
- D. Invoke<T>

Answer: A, B

Q6. If your JavaScript needs to access one of your HTML elements, what should you do?

- A. give the element an id attribute, pass it the id to the function
- B. store the element in an ElementReference and then pass this ElementReference to the function
- C. pass the function a dom query selector and in the function use the selector to find the function
- D. All of the above

Answer: B

Q7. In which lifecycle method you should pass an ElementReference to a JavaScript function?

- A. OnInitialized/OnInitializedAsync.
- B. OnParametersSet/OnParametersSetAsync
- C. OnAfterRender/OnAfterRenderAsync
- D. Any one of the above

Answer: C

Q7. With Blazor, You can call .NET methods from JavaScript.

- A. True
- B. False

Answer: A

Q8 To call a .NET method from javascript what should you do?

- A. Decorate the method with the Serializable attribute
- B. Decorate the method with the JSON attribute
- C. Decorate the method with the JSInvoke attribute
- D. Decorate the method with the Inject attribute

Answer: C

Q9. What should be the type parameter in the `InvokeAsync<T>` method of `IJSRuntime` when loading a JavaScript module dynamically?

- A. `IJSRuntime`
- B. `IJSObjectReference`
- C. `IJSInProcessRuntime`
- D. `JsonSerializer`

Answer: B

Q10. What is required for Blazor components to call a javascript method using the `IJSRuntime.InvokeAsync<T>` ?

- A. register a JavaScript glue function by adding this function in isolated javascript file of the component
- B. register a JavaScript glue function by adding this function to the browser's window global object
- C. using `import` bind the function in the component scope
- D. All of the above

Answer: B

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## Chapter 10, 11

Q1. What kind of data does Blazor store in the browser's memory?

- A. Render tree.
- B. Component's fields and properties
- C. Dependency injection instances
- D. All of the above

Answer: D

Q2. Where you should **not** store data so that it does not get lost, even after a browser refresh?

- A. browser's memory
- B. local storage
- C. server
- D. URL

Answer: A

Q3. Which data store will fail if the user switches to a different browser?

- A. browser's memory
- B. local storage
- C. server
- D. URL

Answer: B

Q4. Data stored in the URL will survive a browser refresh and work across different browsers.

- A. True
- B. False

Answer: A

Q5. \_\_\_\_\_ is the process of making an application support a range of languages.

- 1. Internationalization
- 2. Localization
- 3. Culture
- 4. Regionalization

Answer: A

Q6. Internationalization is often abbreviated as \_\_\_\_\_.

- A. I18n
- B. L10n.
- C. G10n
- D. None

Answer: A

Q7. \_\_\_\_\_ is the process (probably repeated several times) to make the application support a specific language or locale

- A. Internationalization
- B. Localization
- C. Culture
- D. Regionalization

Answer: B

Q8. Localization is often abbreviated as \_\_\_\_\_.

- A. I18n

- B. L10n.
- C. G10n
- D. None

Answer: B

Q9. In .NET programs, where the user's locale is stored?

- A. in an instance of the CultureInfo class
- B. in an instance of the RegionInfo class
- C. in an instance of the IdentityUser class
- D. in an instance of the UserProfile class

Answer: A

Q10. A locale string composed of \_\_\_\_\_.

- A. two lowercase characters to represent the language and the country
- B. two lowercase characters to represent the language and two/three uppercase characters to represent the country
- C. two lowercase characters to represent the language a hyphen, and two/three uppercase characters to represent the region
- D. two lowercase characters to represent the language, a hyphen, and two/three uppercase characters to represent the country

Answer: D

[en-US, en-UK, bn-BD]

Q11. Why is the use of CurrentCulture?

- A. used by runtime for formatting values
- B. used by runtime for lookup the values from resource file
- C. used by runtime for setting language
- D. used by runtime for finding user geolocation

Answer: A

Q12. Why is the use of CurrentUICulture?

- A. used by runtime for formatting values
- B. used by runtime for lookup the values from resource file
- C. used by runtime for setting language
- D. used by runtime for finding user geolocation

Answer: B

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## Chapter 12

Q1. To identify the user is known as\_\_\_\_\_.

- A. Authentication.
- B. Authorization
- C. Identity
- D. Token

Answer: A

Q2. To protect certain resources is known as\_\_\_\_\_.

- A. Authentication.
- B. Authorization
- C. Identity
- D. Token

Answer: B

Q3. Which type of security uses a token to represent the user?

- A. Claim-based security
- B. Identity security
- C. Integrated security
- D. Anonymous security

Answer: A

Q4. Modern applications using REST use the\_\_\_\_\_ open standard.

- A. OAuth open standard
- B. JSON Web Token (JWT)
- C. Grant Token open standard
- D. None of the above

Answer: B

Q5. Serialized JWT token consists of \_\_\_\_\_.

- A. three parts
- B. four parts
- C. five parts
- D. six parts

Answer: A

Q6. Which one does a JWT Token base-64 string not contain?

- A. a header
- B. a payload
- C. an optional footer
- D. a signature

Answer: C

Q7. What is OpenId Connect?

- A. a framework for building application for multiple devices
- B. a cloud-based database
- C. a standard protocol that allows us to secure our applications, including websites, mobile applications, server,
- D. a open standard for representing data

Answer: C



