

ASP.NET, Azure, GitHub Actions, Terraform Training

Multiple Choice Questions

1. What is a key benefit of ASP.NET Core's modular architecture?
 - A. It requires third-party libraries for dependency injection
 - B. It allows faster startup times and reduced memory footprint
 - C. It only runs on Windows operating systems
 - D. It does not support middleware pipelines
2. Which platforms does ASP.NET Core support?
 - A. Windows only
 - B. Linux only
 - C. Windows, Linux, and macOS
 - D. macOS only
3. In the ASP.NET Core application lifecycle, what is the role of middleware?
 - A. Only processes database queries
 - B. Manages HTTP requests and responses sequentially
 - C. Handles static file storage
 - D. Replaces the web server
4. Which file typically contains the host builder configuration in ASP.NET Core?
 - A. Startup.cs
 - B. Program.cs
 - C. appsettings.json
 - D. Web.config
5. What JavaScript library is commonly paired with ASP.NET Core for front-end development?
 - A. Angular
 - B. Vue.js
 - C. React.js
 - D. jQuery

6. What does React's virtual DOM improve?
 - A. Backend data storage
 - B. Rendering performance and UI updates
 - C. Server-side processing speed
 - D. Static file delivery
7. Which HTTP method is used to create a new resource in RESTful APIs?
 - A. GET
 - B. DELETE
 - C. PUT
 - D. POST
8. What is the purpose of JWT in ASP.NET Core?
 - A. To enhance CSS styling
 - B. To secure APIs and authenticate clients
 - C. To serve static files
 - D. To improve database access speed
9. Role-Based Authorization (RBA) controls access based on what?
 - A. User's IP address
 - B. User's assigned roles
 - C. User's browser type
 - D. User's request method
10. Which middleware is recommended to handle unhandled exceptions globally?
 - A. UseRouting
 - B. UseEndpoints
 - C. UseExceptionHandler
 - D. UseStaticFiles
11. What caching strategy stores data directly in the application's memory?
 - A. Distributed caching
 - B. Response caching
 - C. Output caching
 - D. In-memory caching

12. Which security vulnerability involves tricking a user's browser to perform unwanted actions?
- A. Cross-Site Scripting (XSS)
 - B. SQL Injection
 - C. Cross-Site Request Forgery (CSRF)
 - D. Buffer Overflow
13. What ASP.NET Core feature helps protect against CSRF attacks?
- A. Anti-forgery tokens
 - B. JWT tokens
 - C. HSTS headers
 - D. Caching strategies
14. What is a benefit of asynchronous programming in ASP.NET Core?
- A. Blocking server threads during I/O operations
 - B. Increased throughput by avoiding thread blocking
 - C. Reduced application responsiveness
 - D. Decreased server scalability
15. What is the main purpose of unit testing?
- A. Test integration with external APIs
 - B. Deploy applications automatically
 - C. Test UI components manually
 - D. Verify smallest units of code independently
16. What is the role of TestServer in ASP.NET Core testing?
- A. To serve static files
 - B. To host the application in-memory for integration tests
 - C. To deploy to production
 - D. To generate code documentation
17. What is a recommended base image type for containerised deployment to reduce size?
- A. Alpine or Distroless
 - B. Windows Server Core
 - C. Full Ubuntu Desktop
 - D. Red Hat Enterprise Linux

18. What does HTTPS enforce in ASP.NET Core applications?
- A. Unencrypted communication
 - B. Encrypted communication between client and server
 - C. Faster static file serving
 - D. Increased JavaScript execution speed
19. Which technique converts data into unreadable ciphertext to protect sensitive information?
- A. Compression
 - B. Caching
 - C. Logging
 - D. Encryption
20. What does EF Core enable developers to do?
- A. Write SQL directly only
 - B. Work with databases using .NET objects
 - C. Ignore database schema changes
 - D. Only support Windows platforms