

# Cloud Enterprise Developer

1. What is one of the primary benefits of cloud migration related to performance?

- A. Reduced maintenance
- B. Reduced network latency
- C. Lower cost
- D. Improved scalability

ANSWER: B

2. Which of the following describes a benefit of using AWS CodePipeline?

- A. Automates the entire build, test, and deployment process
- B. Requires coding knowledge for all tasks
- C. Reduces the need for testing in the CI/CD process
- D. Increases manual intervention in deployments

ANSWER: A

3. Which feature allows AWS CodeDeploy to roll back to a previous version if a deployment fails?

- A. On-demand deployment
- B. Automatic rollback
- C. Manual code changes
- D. Continuous integration

ANSWER: B

4. How does AWS CodeCommit enhance collaboration within a development team?

- A. By enabling team members to work on the same codebase using Git repositories
- B. By reducing code visibility
- C. By disabling version control
- D. By providing a chat service

ANSWER: A

5. Which cloud migration strategy involves switching to a different product or service?

- A. Replatform
- B. Refactor
- C. Repurchase
- D. Retain

ANSWER: C

6. Which of the following is a key feature of AWS CodeCommit?

- A. Used for large data storage
- B. Manages cloud networking
- C. Deploys applications across regions
- D. Integrated with Git-based workflows

ANSWER: D

7. Which AWS service would you use to automate your CI/CD pipeline?

- A. AWS Lambda
- B. AWS EC2
- C. AWS RDS
- D. AWS CodePipeline

ANSWER: D

8. What does "Rehosting" in cloud migration commonly refer to?

- A. Moving an application to the cloud without changing its architecture
- B. Creating a new application from scratch
- C. Completely replacing an existing application with a new one
- D. Redesigning an application to optimize for the cloud

ANSWER: A

9. Which stage of application migration planning involves creating a comprehensive catalog of all applications?

- A. Total cost of ownership (TCO) assessment
- B. Application identification and assessment
- C. Risk and project duration assessment
- D. Legacy application migration

ANSWER: B

10. What is a common risk associated with application migration related to technical challenges?

- A. Unforeseen technical challenges due to complex dependencies
- B. Overestimated migration costs
- C. Increased employee training costs
- D. Excessive downtime during the migration

ANSWER: A

11. What is the role of version control in DevOps?

- A. To deploy applications automatically
- B. To remove old versions of code permanently
- C. To manage multiple versions of software code
- D. To control user access to the code

ANSWER: C

12. How does IBM Cloud ensure data security during migration?

- A. By ignoring security policies
- B. By reducing encryption levels
- C. By providing built-in encryption and compliance tools
- D. By limiting access to security features

ANSWER: C

13. Which AWS service is used for automating the deployment of applications?

- A. AWS CodeDeploy
- B. AWS Lambda
- C. AWS S3
- D. AWS EC2

ANSWER: A

14. What is AWS CodeCommit used for?

- A. To store and manage source code in a secure and scalable Git repository
- B. To monitor cloud resources
- C. To create virtual machines
- D. To deploy applications to AWS services

ANSWER: A

15. What does IBM aim to achieve by using DevOps tools and AI-driven automation in application modernization?

- A. Reducing the number of applications an organization uses
- B. Changing how clients operate and helping them scale across their business
- C. Migrating all applications to on-premises servers
- D. Exclusively focusing on reducing operating costs

ANSWER: B

16. Which stage involves the actual transfer of the application to the new environment?

- A. Migration and execution
- B. Planning
- C. Testing
- D. Assessment

ANSWER: A

17. What is IBM's primary approach to helping organizations with application modernization?

- A. Offering a range of DevOps tools, accelerators, and AI-driven automation
- B. Only providing cloud infrastructure
- C. Focusing solely on new application development
- D. Providing standalone consulting services

ANSWER: A

18. What type of modern integration architecture does IBM help build?

- A. Traditional monolithic architecture
- B. Solely on-premises integration systems
- C. Cloud-native, API-led, and event-driven architecture
- D. Static, non-scalable architecture

ANSWER: C

19. What is the primary goal of DevOps?

- A. To avoid using automated tools
- B. To keep development and operations teams separate
- C. To speed up the delivery of higher quality software by combining and automating development and operations
- D. To focus solely on software development

ANSWER: C

20. What is one item typically included in a cloud migration checklist?

- A. Completely redesigning all existing applications
- B. Determining which workloads to migrate and their priority
- C. Establishing a new IT department
- D. Hiring a new project manager

ANSWER: B

21. Which tool is commonly used for continuous integration in DevOps?

- A. Jenkins
- B. Selenium
- C. Docker
- D. Git

ANSWER: A

22. What is the main goal of the continuous feedback phase in DevOps?

- A. To gather and evaluate user feedback for improving future releases
- B. To deploy the application to production
- C. To plan new features
- D. To test the application for bugs

ANSWER: A

23. Which phase of the DevOps lifecycle involves monitoring the health, performance, and reliability of the application?

- A. Continuous Development
- B. Continuous Monitoring
- C. Continuous Deployment
- D. Continuous Testing

ANSWER: B

24. Which cloud migration strategy is also known as “lift and shift”?

- A. Replatforming
- B. Rehosting
- C. Repurchasing
- D. Retiring

ANSWER: B

25. Which risk involves potential data loss during application migration?

- A. Security risk
- B. Data integrity risk
- C. Compatibility risk
- D. Compliance risk

ANSWER: B

26. What is the purpose of the continuous testing phase in DevOps?

- A. To use automated tools to test the code for bugs
- B. To manually review code for errors
- C. To deploy the application to production
- D. To manage project scheduling

ANSWER: A

27. Which risk can occur due to insufficient testing before migration?

- A. Reduced migration time
- B. Post-migration issues and failures
- C. Enhanced application features
- D. Increased migration efficiency

ANSWER: B

28. What tool is mentioned for monitoring infrastructure and alerting users about issues in DevOps?

- A. Nagios
- B. Docker
- C. Git
- D. Jenkins

ANSWER: A

29. What is a common risk related to application compatibility in migration?

- A. Applications may not work in the new environment
- B. Reduced migration costs
- C. Improved application performance
- D. Enhanced security features

ANSWER: A

30. What is one of the primary risks associated with application migration?

- A. Data security breaches
- B. Improved system performance
- C. Increased application availability
- D. Simplified migration process

ANSWER: A

31. In a DevOps model, what is a key benefit of merging development and operations teams?

- A. Increased manual processes
- B. Enhanced collaboration and skill diversity
- C. Decreased team velocity
- D. Better team specialization

ANSWER: B

32. What is the first step in a cloud migration strategy?

- A. Assessing current infrastructure
- B. Migrating the data
- C. Selecting a cloud provider
- D. Automating deployment

ANSWER: A

33. Which tool is commonly used for version control in DevOps?

- A. AWS CodeDeploy
- B. Nagios
- C. Jenkins
- D. Git

ANSWER: D

34. Which practice helps increase the frequency and pace of releases in DevOps?

- A. Long development cycles
- B. Waterfall model
- C. Continuous integration and continuous delivery
- D. Manual deployment

ANSWER: C

35. What is a common challenge faced during application migration?

- A. Data loss or corruption
- B. Improved application performance
- C. Increased security
- D. Enhanced user experience

ANSWER: A

36. Which of the following is a key step in the application migration process?

- A. Ignoring application dependencies
- B. Rewriting the entire application
- C. Assessing current applications and infrastructure
- D. Avoiding application testing

ANSWER: C

37. What is a key benefit of the DevOps model in terms of speed?

- A. Reduced team collaboration
- B. Slower release cycles
- C. Faster innovation and adaptation
- D. Increased manual processes

ANSWER: C

38. What is the final phase in the Waterfall model?

- A. Testing
- B. Maintenance
- C. Implementation
- D. Deployment

ANSWER: B

39. What does the Continuous Development stage involve?

- A. Committing code to version control and packaging it for testing
- B. Gathering user feedback
- C. Monitoring the application for bugs
- D. Deploying code to production servers

ANSWER: A

40. Which of the following is an advantage of the Waterfall model?

- A. Suitable for large and complex projects
- B. Simple to understand and use
- C. High flexibility in requirements changes
- D. High visibility of progress during development

ANSWER: B

41. What does the 'Reliability' benefit of DevOps emphasize?

- A. Reduced testing
- B. Ensuring quality of updates and infrastructure changes
- C. Decreased real-time monitoring
- D. Faster bug fixes

ANSWER: B

42. What is a primary advantage of the Agile methodology?

- A. Lack of customer feedback
- B. Slow release cycles
- C. Ability to adapt to changing requirements
- D. Fixed scope and requirements

ANSWER: C

43. What is the primary function of Ansible?

- A. Configuration management and application deployment
- B. Continuous monitoring
- C. Automated build processes
- D. Software versioning

ANSWER: A

44. Which Agile process involves releasing an application with high-priority features first?

- A. Waterfall Model
- B. Continuous Deployment
- C. Kanban
- D. Iteration

ANSWER: D



45. Which DevOps tool is commonly used for container orchestration?

- A. Jenkins
- B. GitLab
- C. Docker
- D. Kubernetes

ANSWER: D

46. What is the primary function of the IBM Cloud DevOps Toolchain?

- A. Providing storage solutions
- B. Managing databases
- C. Hosting virtual machines
- D. Automating the software delivery process

ANSWER: D

47. What is a key characteristic of the Agile methodology regarding feedback?

- A. Feedback is ignored
- B. Feedback is gathered during each iteration
- C. Feedback is collected only after testing
- D. Feedback is received only at the end of the project

ANSWER: B

48. Which of the following is the first phase in the Waterfall model?

- A. Implementation
- B. Maintenance
- C. Requirements Gathering and Analysis
- D. Design

ANSWER: C

49. In the Waterfall model, what is the purpose of the Verification phase?

- A. To maintain the application after deployment
- B. To gather requirements from the client
- C. To test the application thoroughly
- D. To design the software architecture

ANSWER: C

50. Which tool is known for having a GUI and is cross-platform, running on both Unix and Windows?

- A. Chef
- B. Puppet
- C. SVN
- D. Ansible

ANSWER: B

51. Which tool is used for continuous monitoring of infrastructure, including servers and applications?

- A. Docker
- B. Nagios
- C. Maven
- D. Kubernetes

ANSWER: B

52. What is Splunk primarily used for?

- A. Source code management
- B. Log management, infrastructure, and application monitoring
- C. Continuous integration
- D. Container orchestration

ANSWER: B

53. Which tool integrates with Raygun to automatically link errors back to the source code?

- A. Prometheus
- B. Gremlin
- C. JUnit
- D. Splunk On-Call

ANSWER: D

54. Which tool is used for continuous integration and delivery, and automates code deployments to any instance?

- A. AWS Lambda
- B. AWS CodePipeline
- C. AWS CodeBuild
- D. AWS CodeDeploy

ANSWER: D

55. Which of the following cloud services is typically used to store data for a web application?

- A. Compute instances
- B. Object storage
- C. Load balancer
- D. Content Delivery Network (CDN)

ANSWER: B

56. What is a common use case for a Content Delivery Network (CDN) in a web application?

- A. Distributing static content globally
- B. Managing server logs
- C. Storing user data
- D. Running database queries

ANSWER: A

57. Which cloud service is primarily responsible for hosting the back-end logic of a web application?

- A. Compute services (e.g., EC2, VM instances)
- B. Object storage
- C. Domain Name System (DNS)
- D. API Gateway

ANSWER: A

58. Which service is commonly used to manage databases in cloud-based web applications?

- A. Load balancer
- B. CDN
- C. Relational Database Service (RDS)
- D. Object storage

ANSWER: C

59. What is the purpose of a load balancer in a cloud-based web application?

- A. Deliver static content
- B. Store application logs
- C. Distribute incoming traffic across multiple servers
- D. Manage user authentication

ANSWER: C

60. Which AWS service allows developers to create and manage a collection of related AWS resources using templates?

- A. AWS CodeCommit
- B. AWS OpsWorks
- C. AWS CloudFormation
- D. AWS X-Ray

ANSWER: C

61. What is AWS OpsWorks used for?

- A. Continuous Integration
- B. Configuration management using Chef
- C. Monitoring cloud resources
- D. Source control

ANSWER: B

62. Which AWS service provides monitoring for AWS cloud resources and applications?

- A. AWS CloudTrail
- B. Amazon CloudWatch
- C. AWS Config
- D. AWS Systems Manager

ANSWER: B

63. Which IBM Cloud DevOps tool allows teams to build a backlog of user stories and track tasks through to completion?

- A. GitHub
- B. Jira
- C. Jenkins
- D. Selenium

ANSWER: B

64. What is the primary function of AWS CodePipeline?

- A. Continuous integration
- B. Continuous delivery
- C. Configuration management
- D. Monitoring

ANSWER: B

65. How do serverless architectures impact maintenance?

- A. They require regular server maintenance.
- B. They eliminate the need for system updates.
- C. They simplify maintenance by offloading to the cloud provider.
- D. They increase the complexity of maintenance tasks.

ANSWER: C

66. What type of workloads is FaaS best suited for?

- A. Long-running processes
- B. Batch processing tasks
- C. Short-lived, event-driven tasks
- D. Static web hosting

ANSWER: C

67. What is a key feature of Google Cloud Functions?

- A. Requires physical servers
- B. Offers only Python support
- C. Allows execution of code in response to events
- D. Is not event-driven

ANSWER: C

68. Which of the following is a common use case for serverless architecture?

- A. Traditional enterprise applications
- B. File storage
- C. Static websites
- D. Real-time data processing

ANSWER: D

69. How can serverless architecture be utilized in web applications?

- A. For serving static content only
- B. For running complex databases
- C. For handling user authentication and back-end logic
- D. For managing server infrastructure

ANSWER: C

70. Which protocol is known for being lightweight and simple?

- A. REST
- B. SOAP
- C. XML-RPC
- D. JSON-RPC

ANSWER: C

71. What is the primary role of a cloud provider in a serverless architecture?

- A. Provide and manage the infrastructure
- B. Write user documentation
- C. Monitor network traffic
- D. Develop applications

ANSWER: A

72. Which AWS service provides fully managed build environments and scales continuously?

- A. AWS CodePipeline
- B. AWS CodeDeploy
- C. AWS CodeStar
- D. AWS CodeBuild

ANSWER: D

73. Which of the following is NOT a benefit of serverless architectures?

- A. Increased vendor lock-in
- B. Reduced infrastructure management
- C. Cost efficiency
- D. Automatic scaling

ANSWER: A

74. What does AWS CodePipeline help automate?

- A. Security patches
- B. The release pipeline
- C. Code reviews
- D. Software deployments

ANSWER: B



75. What is AWS CodeCommit used for?
- A. Monitoring application performance
  - B. Continuous integration
  - C. Source control for Git repositories
  - D. Automated software deployments

ANSWER: C

76. What is the main benefit of AWS CodeStar?
- A. Automates software builds
  - B. Provides source control
  - C. Sets up and manages continuous delivery toolchains quickly
  - D. Monitors application performance

ANSWER: C

77. What is the primary function of AWS CodeDeploy?
- A. Automate software deployments
  - B. Monitor application performance
  - C. Compile source code
  - D. Manage source code repositories

ANSWER: A

78. Which tool is used for version-controlled coding environments in DevOps?
- A. Nagios
  - B. GitHub
  - C. Jenkins
  - D. Ansible

ANSWER: B

79. What type of applications are particularly suited for serverless architectures?
- A. Monolithic applications
  - B. Static applications
  - C. Event-driven applications
  - D. Applications with predictable workloads

ANSWER: C

80. Which service allows you to track the status of application deployments through a centralized console?
- A. AWS CodeDeploy
  - B. AWS CodePipeline
  - C. AWS CloudWatch
  - D. AWS CodeBuild

ANSWER: A

81. What is a primary reason for adopting serverless architectures?
- A. Avoid using APIs
  - B. Write complex code
  - C. Maintain physical servers
  - D. Reduce operational costs

ANSWER: D

82. Why might a company choose a serverless architecture for a startup application?
- A. High initial investment
  - B. Requirement for complex infrastructure management
  - C. Ability to rapidly iterate and adapt
  - D. Necessity for dedicated servers

ANSWER: C

83. What feature of AWS CodeCommit helps you collaborate on code with teammates?
- A. Build servers
  - B. Continuous scaling
  - C. Deployment tracking
  - D. Pull requests and branching

ANSWER: D

84. Which of the following best describes serverless architecture?
- A. Architecture that requires user-maintained servers
  - B. Architecture only suitable for small applications
  - C. Architecture that abstracts server management from developers
  - D. Architecture that involves deploying virtual machines

ANSWER: C

85. Which file is used by AWS CodeDeploy to specify deployment instructions?
- A. config.json
  - B. appspec.yml
  - C. deploy.json
  - D. buildspec.yml

ANSWER: B

86. What does a cloud provider offer to ensure high availability in serverless architectures?
- A. Load balancers and auto-scaling
  - B. Fixed data centers
  - C. Local storage only
  - D. Physical servers only

ANSWER: A

87. Which AWS service provides automated software deployments and helps minimize downtime?
- A. AWS CodeDeploy
  - B. AWS CodeStar
  - C. AWS CodePipeline
  - D. AWS CodeBuild

ANSWER: A

88. Which service is primarily responsible for scaling and managing build environments?
- A. AWS CodePipeline
  - B. AWS CodeBuild
  - C. AWS CodeDeploy
  - D. AWS CodeStar

ANSWER: B

89. Who is responsible for server maintenance in serverless architectures?
- A. Cloud provider
  - B. IT department
  - C. End user
  - D. Developer

ANSWER: A

90. What is the core component of a DevOps toolchain?
- A. Database
  - B. Version control repository
  - C. Web server
  - D. Cloud storage

ANSWER: B

91. Which IBM Cloud tool is used for issue tracking and source code collaboration?
- A. IBM Cloud Kubernetes Service
  - B. Eclipse Orion Web IDE
  - C. Git Repos and Issue Tracking
  - D. IBM Cloud DevOps Insights

ANSWER: C

92. Which toolchain is used for developing and deploying a Cloud Foundry app?
- A. Develop a Kubernetes app with Helm
  - B. Develop a Cloud Foundry app
  - C. Develop a Code Engine app
  - D. Develop and test microservices on Kubernetes

ANSWER: B

93. What is the primary purpose of a toolchain in IBM Cloud?

- A. To store data
- B. To automate the building, deployment, and operations tasks of applications
- C. To manage network security
- D. To provide cloud storage solutions

ANSWER: B

94. Which of the following is NOT a method to create a toolchain on IBM Cloud?

- A. Use a template to create a toolchain
- B. Create a toolchain from an app
- C. Use a cloud database
- D. Create a toolchain manually from scratch

ANSWER: C

95. DevOps is an extension of \_\_\_\_\_.

- A. QA
- B. Agile
- C. Waterfall
- D. None of the above

ANSWER: B

96. Which of the following best describes how APIs work?

- A. APIs create new software applications.
- B. APIs act as intermediaries that allow different software systems to communicate.
- C. APIs are used for data storage only.
- D. APIs replace the need for programming languages.

ANSWER: B

97. APIs are essential for which of the following concepts?

- A. User Interface Design
- B. Software Development
- C. Network Security
- D. Data Encryption

ANSWER: B

98. Which of the following is NOT a benefit of using APIs?

- A. Increased flexibility
- B. Improved security
- C. Slower development
- D. Enhanced collaboration

ANSWER: C

99. What is a common use case for APIs?

- A. Managing databases
- B. Sending emails
- C. Integrating different services
- D. Writing system code

ANSWER: C

100. APIs can be categorized into which of the following types?

- A. Internal and External
- B. Public and Private
- C. Open and Closed
- D. All of the above

ANSWER: D

101. Which of the following is a common example of an API?

- A. Google Maps
- B. Microsoft Word
- C. Adobe Photoshop
- D. Windows OS

ANSWER: A

102. Which type of API is publicly accessible to developers?

- A. Internal API
- B. Partner API
- C. Open API
- D. Composite API

ANSWER: C

103. What type of API is specifically designed for use within an organization?

- A. Public API
- B. Internal API
- C. Partner API
- D. Composite API

ANSWER: B

104. Which of the following is NOT a type of API?

- A. Open API
- B. Internal API
- C. Hybrid API
- D. Partner API

ANSWER: C

105. What does the Deploy stage in a Classic Delivery Pipeline typically specify?

- A. Build instructions
- B. Monitoring tools
- C. Test configuration
- D. Deployment commands

ANSWER: D

106. Which IBM Cloud service provides a visual representation of the toolchain?

- A. IBM Cloud Storage
- B. IBM Cloud Kubernetes Service
- C. IBM Cloud Continuous Delivery
- D. IBM Cloud Monitoring

ANSWER: C

107. Which of the following is NOT a configuration management tool?

- A. Jira
- B. Puppet
- C. Ansible
- D. Chef

ANSWER: A

108. What type of code repository is supported by Classic Delivery Pipelines for integration?

- A. Google Drive
- B. AWS S3
- C. Dropbox
- D. GitHub

ANSWER: D

109. Which of the following components is commonly used to define the steps of a Classic Delivery Pipeline?

- A. Stages
- B. Containers
- C. Webhooks
- D. Virtual Machines

ANSWER: A

110. Which tool is commonly used for Continuous Integration and Continuous Deployment (CI/CD)?

- A. Docker
- B. Jenkins
- C. Ansible
- D. Git

ANSWER: B

111. Which of the following is not a part of DevOps lifecycle \_\_\_\_\_.

- A. Build
- B. Plan
- C. Code
- D. Operating

ANSWER: D

112. What is Docker primarily used for?

- A. Continuous Integration
- B. Version Control
- C. Project Management
- D. Containerization

ANSWER: D

113. What is the main purpose of the IBM Cloud Classic Delivery Pipeline?

- A. To manage databases
- B. To build, test, and deploy applications
- C. To monitor cloud infrastructure
- D. To provide cloud storage

ANSWER: B

114. Which tool is mainly used for version control in DevOps?

- A. Kubernetes
- B. Git
- C. Docker
- D. Jenkins

ANSWER: B

115. Which file is used to control how your project is deployed to IBM Cloud?

- A. 'pipeline.yml'
- B. 'build.properties'
- C. 'deploy.config'
- D. 'manifest.yml'

ANSWER: D

116. What type of Docker image can be specified in the Deploy stage for fine-grained control over tools?

- A. Custom Docker image
- B. Pre-built Docker image
- C. Base Docker image
- D. Pipeline image version

ANSWER: A

117. What is the purpose of a deploy job in a pipeline?

- A. To run unit tests
- B. To create build artifacts
- C. To upload and deploy the project to a server
- D. To compile source code

ANSWER: C

118. What are the typical layers in a 3-tier application architecture?

- A. Client layer, server layer, data layer
- B. UI layer, middleware layer, storage layer
- C. Presentation layer, application layer, database layer
- D. Frontend layer, backend layer, analytics layer

ANSWER: C

119. Why is Edge Computing important in relation to hybrid cloud solutions?

- A. It eliminates the need for data centers.
- B. It allows decentralized computing and storage as needed.
- C. It only works with public cloud services.
- D. It relies solely on centralized computing resources.

ANSWER: B

120. What is the primary focus of modern application design in consumer-facing applications?

- A. Legacy system integration
- B. Hardware compatibility
- C. User experience, statelessness, and agility
- D. Statefulness and functionality

ANSWER: C

121. What is the default directory where build artifacts are archived in a build job?

- A. '/home/user/build'
- B. '/root/build'
- C. Project root directory
- D. '/tmp/build'

ANSWER: C



122. In event-driven architecture (EDA), how do services communicate?

- A. Using events to trigger and communicate between decoupled services
- B. By direct method calls
- C. Through shared databases
- D. Via synchronous requests

ANSWER: A

123. What is a major issue with 3-tier application architecture?

- A. It is too simple for modern applications.
- B. It can become too large and complex over time.
- C. It lacks a clear separation of concerns.
- D. It requires excessive hardware resources.

ANSWER: B

124. Which Deployer type is used for deploying applications to Cloud Foundry servers?

- A. Custom Docker image
- B. Sauce Labs
- C. Cloud Foundry
- D. Kubernetes

ANSWER: C

125. What does API stand for?

- A. Automated Programming Interface
- B. Application Protocol Interface
- C. Application Programming Interface
- D. Advanced Programming Interface

ANSWER: C

126. What allows Docker containers to be easily scalable?

- A. Their lightweight nature and independence from the underlying infrastructure
- B. Their dependence on physical hardware
- C. The need for complex configurations
- D. Their integration with legacy systems

ANSWER: A

127. Which command is used to verify the host key fingerprint for a Git server over SSH?

- A. 'ssh-keyscan -t rsa'
- B. 'ssh-keygen -lf'
- C. 'ssh-keyscan -t'
- D. 'ssh-keyscan -t dsa'

ANSWER: A

128. In IBM Cloud, what are the worker nodes used for?

- A. Running the API Server
- B. Storing cluster data
- C. Hosting containerized applications
- D. Managing the Kubernetes cluster

ANSWER: C

129. What is the primary purpose of an API?

- A. To manage hardware resources
- B. To store application data
- C. To enable communication between applications
- D. To create user interfaces

ANSWER: C

130. What architecture does Kubernetes follow?

- A. Monolithic architecture
- B. Client-server architecture
- C. Microservices architecture
- D. Peer-to-peer architecture

ANSWER: B

131. Where can you update your display name for Git Repos and Issue Tracking?

- A. On the User Settings page
- B. On the Account page
- C. On the Quality Dashboard page
- D. On the Access Tokens page

ANSWER: A

132. What is a personal access token used for in Git?

- A. To verify the authenticity of an SSH key.
- B. To authenticate with your Git repo over HTTPS.
- C. To update the display name in Git.
- D. To increase the size limit of a repository.

ANSWER: B

133. Which of the following best describes cloud bursting in a hybrid cloud environment?

- A. Using only public cloud resources
- B. Combining private and public clouds to manage peak loads
- C. Storing all data on private clouds
- D. Transferring all applications to on-premises infrastructure

ANSWER: B

134. What role does the API Server play in a Kubernetes cluster?

- A. It schedules tasks for the cluster.
- B. It serves as the entry point for all API requests.
- C. It runs the containerized applications.
- D. It manages the state of the cluster.

ANSWER: B

135. What does REST stand for in REST API?

- A. Regular State Transfer
- B. Representational Service Transfer
- C. Representational State Transfer
- D. Real-time State Transfer

ANSWER: C

136. Which protocol uses XML to transfer data?

- A. REST
- B. SOAP
- C. JSON-RPC
- D. XML-RPC

ANSWER: B

137. What is the main advantage of a serverless architecture?

- A. It requires constant server maintenance.
- B. Developers need to manage physical servers.
- C. Developers can focus on core product development without managing infrastructure.
- D. It is limited to on-premises deployments.

ANSWER: C

138. In the API request process, what does the client application send first?

- A. A server request
- B. An authorization token
- C. An API call
- D. A response

ANSWER: C

139. Which HTTP method is used to retrieve data from a server in a REST API?

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

ANSWER: D

140. Which of the following is a serverless compute service offered by AWS?

- A. Kubernetes
- B. Google Cloud Functions
- C. Azure Functions
- D. AWS Lambda

ANSWER: D

141. What is a common use case for serverless architecture?

- A. Managing virtual machines
- B. Long-running batch processes
- C. Building RESTful APIs
- D. Hosting a static website

ANSWER: C

142. What is a container in software development?

- A. A cloud storage solution
- B. A type of virtual machine
- C. An executable unit that packages application code with its libraries and dependencies
- D. A physical server that hosts applications

ANSWER: C

143. What is the primary purpose of Docker?

- A. To manage cloud resources
- B. To create virtual machines
- C. To develop mobile applications
- D. To run containers

ANSWER: D

144. Which type of API is accessible to anyone with the appropriate credentials and typically found through a public developer portal?

- A. Partner API
- B. Composite API
- C. Internal API
- D. Open API

ANSWER: D

145. Which format is commonly used for data interchange in REST APIs?

- A. XML
- B. CSV
- C. JSON
- D. HTML

ANSWER: C

146. What does FaaS stand for?

- A. Function-as-a-Service
- B. Framework-as-a-Service
- C. File-as-a-Service
- D. Feature-as-a-Service

ANSWER: A

147. What is the purpose of the Developer Portal?

- A. To manage server configurations
- B. To analyze server logs
- C. To create database schemas
- D. To customize self-service portals for API discovery and subscription

ANSWER: D

148. Which gateway is specifically mentioned for enterprise API management?

- A. Amazon API Gateway
- B. Kong Gateway
- C. Nginx Gateway
- D. DataPower Gateway

ANSWER: D

149. What HTTP method is used to retrieve a record in a REST API?

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

ANSWER: B

150. What component of API Connect is used to manage the API Connect on-premises cloud?

- A. Developer Portal
- B. Cloud Manager
- C. API Gateway
- D. API Manager

ANSWER: D

151. What does the API Manager UI allow users to do?

- A. Promote and track APIs within Products and Plans
- B. Create virtual machines
- C. Write code for APIs
- D. Develop serverless applications

ANSWER: A

152. Which of the following is NOT one of the constraints of REST architecture?

- A. Uniform interface
- B. Client-server decoupling
- C. Cacheability
- D. Stateful communication

ANSWER: D

153. What does the Developer Portal provide for application developers?

- A. Command line interface tools
- B. Security policies for APIs
- C. Tools for modeling APIs
- D. A customizable self-service web-based portal

ANSWER: D

154. Which API allows developers to interact with public Tweets and post Tweets?

- A. Facebook API
- B. PayPal API
- C. Google Maps API
- D. Twitter API

ANSWER: D

155. What is the primary purpose of Partner APIs?

- A. To access public data
- B. To improve internal productivity
- C. To expose APIs to strategic business partners
- D. To combine multiple APIs into one

ANSWER: C

156. Which cloud service provides a managed Kubernetes offering with integrated tools for app deployment and management?

- A. Google Cloud Storage
- B. Amazon ECS
- C. IBM Cloud Kubernetes Service
- D. Red Hat OpenShift

ANSWER: C

157. What does the Kubernetes Scheduler do?

- A. Manages API requests
- B. Runs containerized applications
- C. Stores configuration data
- D. Distributes workloads across nodes

ANSWER: D

158. What are Open APIs also known as?

- A. Partner APIs
- B. Composite APIs
- C. Public APIs
- D. Private APIs

ANSWER: C

159. Which of the following is a popular FaaS service offered by AWS?

- A. Google Cloud Functions
- B. IBM Cloud Functions
- C. Azure Functions
- D. AWS Lambda

ANSWER: D

160. What is a key feature of Composite APIs?

- A. They require extensive documentation
- B. They are accessible only by the public
- C. They combine multiple data or service APIs into a single call
- D. They are used exclusively for internal communication

ANSWER: C

161. Which of the following protocols is built with XML and allows data sharing between different environments?

- A. XML-RPC
- B. REST
- C. JSON-RPC
- D. SOAP

ANSWER: D

162. What is the primary benefit of using containers?

- A. They require a full OS for each instance.
- B. They do not support microservices.
- C. They are less portable than virtual machines.
- D. They are lightweight and portable.

ANSWER: D

163. Which component of Kubernetes is responsible for storing configuration information and is accessible only by the Kubernetes API server?

- A. Controller Manager
- B. Scheduler
- C. API Server
- D. etcd

ANSWER: D

164. Which of the following is a benefit of using APIs?

- A. Easier innovation and data monetization
- B. Increased complexity in data handling
- C. Reduced collaboration between departments
- D. Decreased security measures

ANSWER: A

165. What is the key difference between 'Replatforming' and 'Rehosting'?

- A. Replatforming and Rehosting are essentially the same thing.
- B. Replatforming requires changing the application's underlying technology, while Rehosting does not.
- C. Replatforming is always less costly than Rehosting.
- D. Replatforming involves creating a new application, whereas Rehosting involves improving an existing one.

ANSWER: B

166. What does the 'Retire' strategy in cloud migration entail?

- A. Redesigning applications for the cloud
- B. Identifying and discontinuing applications that are no longer needed
- C. Keeping applications on-premises
- D. Moving applications to a new cloud environment

ANSWER: B

167. What happens after a server receives a valid API request?

- A. The server sends a response back to the API with the requested information
- B. The server initiates a new request to another server
- C. The server ignores the request
- D. The server stores the request for future reference

ANSWER: A

168. Which cloud migration strategy is best suited for applications that are too difficult to migrate?

- A. Repurchase
- B. Retain
- C. Refactor
- D. Retire

ANSWER: B

169. What is a primary benefit of microservices architecture?

- A. Single point of failure
- B. Independent deployment of services
- C. Tight coupling of services
- D. Monolithic codebase

ANSWER: B



170. In an API call, what does the request verb specify?

- A. The location of the API
- B. The time of the request
- C. The type of action to be performed (e.g., GET, POST)
- D. The format of the response data

ANSWER: C

171. What does the 3-tier architecture model consist of?

- A. Database, API, Frontend
- B. Presentation, Business Logic, Data
- C. User Interface, Web Server, Cloud Storage
- D. Frontend, Middleware, Backend

ANSWER: B

172. What is the primary function of an API?

- A. To enable integration and communication between different applications
- B. To limit data access to internal teams only
- C. To store data securely
- D. To provide offline access to applications

ANSWER: A

173. What happens after a server receives a valid API request?

- A. The server sends a response back to the API with the requested information
- B. The server initiates a new request to another server
- C. The server stores the request for future reference
- D. The server ignores the request

ANSWER: A

174. How can organizations maintain security while adopting a DevOps model?

- A. By ignoring compliance and security policies
- B. By restricting all access to the system
- C. By using automated compliance policies and configuration management techniques
- D. By only focusing on development speed

ANSWER: C

175. What is the main focus of Continuous Feedback in the DevOps lifecycle?

- A. Testing code without user input
- B. Gathering input from stakeholders to improve the development process
- C. Delaying releases for extensive testing
- D. Ignoring user feedback to expedite releases

ANSWER: B

176. Which migration strategy involves redesigning an application to improve its performance and reliability?

- A. Rehost
- B. Repurchase
- C. Refactor
- D. Replatform

ANSWER: C

177. What might be a significant challenge when migrating legacy applications to the cloud?

- A. Lower maintenance costs
- B. Outdated software, which can be expensive and raise security concerns
- C. Simplicity in migration
- D. Improved performance in modern environments

ANSWER: B

178. What types of applications can an enterprise application developer build under a DevOps model?

- A. Only traditional desktop applications
- B. Cognitive, IoT, blockchain, mobile, and data-intensive applications
- C. Applications that do not require cloud-native services
- D. Only simple web applications

ANSWER: B

179. What does the 'Total Cost of Ownership (TCO)' assessment in migration planning involve?

- A. Evaluating only the costs of cloud provider services
- B. Calculating only the migration costs without considering ongoing expenses
- C. Comparing hardware costs with cloud provider costs and migration expenses
- D. Determining the cost of maintaining legacy applications only

ANSWER: C

180. Which tool is primarily used for containerization in DevOps?

- A. Nagios
- B. Docker
- C. Jenkins
- D. Git

ANSWER: B

181. In IBM's strategy, what is the role of AI-driven insights and visualizations?

- A. To manage all aspects of IT operations permanently
- B. To develop a custom solution and ROI-driven roadmap
- C. To reduce the need for cloud services
- D. To replace existing applications with new ones

ANSWER: B

182. What practices help ensure reliability in a DevOps model?

- A. Continuous integration and continuous delivery
- B. Manual testing only
- C. Ignoring application updates
- D. Releasing software without testing

ANSWER: A

183. How does IBM's approach to application deployment and management benefit organizations?

- A. By increasing manual processes for control
- B. By providing no support for security and compliance
- C. By reducing costs while increasing operational efficiency and visibility
- D. By focusing only on on-premises environments

ANSWER: C

184. What does the term "Pay-As-You-Go" refer to in the context of DevOps services?

- A. A model where users only pay for the resources they consume
- B. Unlimited access to all services for a flat fee
- C. Free services provided by cloud providers
- D. A fixed pricing model

ANSWER: A

185. In which phase does the application get deployed to the production server?

- A. Continuous Operations
- B. Continuous Deployment
- C. Continuous Integration
- D. Continuous Testing

ANSWER: B

186. Which tool is used for version control and maintaining code changes in DevOps?

- A. Selenium
- B. Slack
- C. Git
- D. Jenkins

ANSWER: C

187. How does continuous integration benefit the development process in DevOps?
- A. By avoiding the use of automation tools
  - B. By regularly updating the central repository and automating build and test processes
  - C. By delaying code integration until the end of the project
  - D. By only focusing on manual testing

ANSWER: B

188. What is a key benefit of building containerized applications according to IBM?
- A. Exclusively designed for on-premises servers
  - B. Reduced security measures
  - C. Optimized for scale and performance with continuous delivery and DevSecOps principles
  - D. Increased time to market

ANSWER: C

189. Which of the following is NOT a phase in the DevOps lifecycle?
- A. Code
  - B. Deploy
  - C. Compile
  - D. Monitor

ANSWER: C

190. What is a key benefit of using DevOps practices?
- A. Increased time for software delivery
  - B. More manual processes
  - C. Improved collaboration and communication between teams
  - D. Decreased need for security

ANSWER: C

191. In which phase of the DevOps lifecycle is the application monitored to ensure service uptime and optimal performance?
- A. Code
  - B. Plan
  - C. Deploy
  - D. Monitor

ANSWER: D

192. What does the DevOps lifecycle encompass?
- A. Only software testing and deployment
  - B. A combination of different phases of continuous software development, integration, testing, deployment, and monitoring
  - C. Only planning and monitoring
  - D. Only development and operations

ANSWER: B

193. What is DevOps primarily aimed at achieving?
- A. Reducing the number of applications developed
  - B. Slower application delivery
  - C. Increased collaboration between developers and operations teams to deliver applications faster
  - D. Eliminating the need for automation tools

ANSWER: C

194. What is the purpose of Continuous Integration in the DevOps lifecycle?
- A. To gather and evaluate user feedback
  - B. To monitor the performance of deployed applications
  - C. To integrate and automate different stages of the DevOps lifecycle
  - D. To deploy code to the production environment

ANSWER: C

195. How does DevOps improve collaboration between teams?

- A. By maintaining separate workflows for development and operations
- B. By focusing solely on development and ignoring operational concerns
- C. By reducing the frequency of communication between teams
- D. By integrating development and operations teams and sharing responsibilities

ANSWER: D

196. Which Agile framework focuses on frequent releases and responding to changing customer requirements?

- A. Lean Development
- B. Kanban
- C. Extreme Programming (XP)
- D. Scrum

ANSWER: C

197. What is a disadvantage of the Agile model?

- A. It reduces maintainability risks
- B. It allows for flexible response to changes
- C. It is difficult to predict time and effort for larger projects
- D. It provides detailed documentation

ANSWER: C

198. How does Kubernetes help in the continuous operations phase of DevOps?

- A. By automating the testing process
- B. By eliminating downtime during software updates
- C. By reducing code errors
- D. By integrating code changes

ANSWER: B

199. What does Continuous Monitoring involve in the DevOps lifecycle?

- A. Deploying applications to production servers
- B. Monitoring the deployed application for issues and collecting user feedback
- C. Building and packaging code
- D. Automating code integration

ANSWER: B

200. What is the purpose of the continuous operations phase in DevOps?

- A. To ensure high uptime and manage containerized applications
- B. To gather user feedback
- C. To monitor application performance
- D. To plan and code new features

ANSWER: A

201. Which AWS feature helps you scale from a single instance to thousands?

- A. AWS Elastic Beanstalk
- B. AWS CloudFormation
- C. AWS Auto Scaling
- D. AWS Identity and Access Management (IAM)

ANSWER: C

202. In the Waterfall model, what phase comes immediately after the Design phase?

- A. Testing
- B. Maintenance
- C. Verification
- D. Implementation

ANSWER: D

203. Which of the following is an advantage of the Waterfall model?
- A. Flexibility in handling changing requirements
  - B. Easy testing and analysis
  - C. Rapid iteration and feedback
  - D. Continuous integration and deployment

ANSWER: B

204. What is the main purpose of AWS CodePipeline?
- A. To manage containerized applications
  - B. To provide continuous integration and continuous delivery workflows
  - C. To build and test code
  - D. To run code without managing servers

ANSWER: B

205. Which AWS service records API calls for your account and delivers log files?
- A. AWS CodePipeline
  - B. AWS X-Ray
  - C. AWS CloudTrail
  - D. AWS Config

ANSWER: C

206. Which of the following tools is used for container orchestration and auto-scaling?
- A. Git
  - B. Kubernetes
  - C. Apache Ant
  - D. Rational ClearCase

ANSWER: B

207. What is the main purpose of Prometheus in DevOps?
- A. Monitoring and time-series data
  - B. Configuration management
  - C. Version control
  - D. Containerization

ANSWER: A

208. What is the primary function of AWS Lambda?
- A. To manage build processes
  - B. To handle code deployments
  - C. To provide a unified interface for development activities
  - D. To run code without provisioning or managing servers

ANSWER: D

209. What does AWS Systems Manager help with?
- A. Building and testing code
  - B. Collecting software inventory, applying patches, and configuring OS
  - C. Automating code deployments
  - D. Managing Git repositories

ANSWER: B

210. Which tool combines synthetic monitoring, real-user monitoring, and network monitoring for detecting errors?
- A. Gremlin
  - B. Catchpoint
  - C. Raygun
  - D. Splunk

ANSWER: B

211. What is the main purpose of AWS Elastic Beanstalk?
- A. Deploying and scaling web applications
  - B. Hosting private Git repositories
  - C. Managing infrastructure for web applications
  - D. Automating code builds

ANSWER: A

212. Which tool is used for containerization in DevOps?
- A. Jenkins
  - B. Git
  - C. Docker
  - D. Selenium

ANSWER: C



213. Which tool uses XML files for the build process and is inspired by the Unix make utility?

- A. Ant
- B. Maven
- C. Chef
- D. Docker

ANSWER: A

214. Which AWS service automates the build, test, and deploy phases of your release process?

- A. AWS CodeBuild
- B. AWS CodeStar
- C. AWS CodeDeploy
- D. AWS CodePipeline

ANSWER: D

215. What does AWS CodeBuild primarily provide?

- A. Monitoring and logging
- B. Continuous integration
- C. Configuration management
- D. Version control

ANSWER: B

216. Which tool is known for automating software deployments to services like Amazon EC2 and AWS Lambda?

- A. AWS CodeDeploy
- B. AWS X-Ray
- C. AWS CodePipeline
- D. AWS CodeBuild

ANSWER: A

217. What feature of AWS CodeDeploy helps maximize application availability during deployments?

- A. Centralized control
- B. Automatic scaling
- C. Incremental changes and health tracking
- D. Custom build environments

ANSWER: C

218. Which IBM Cloud service helps manage and automate the configuration of IBM Cloud resources?

- A. IBM Cloud Key Protect
- B. IBM Cloud Monitoring
- C. IBM Cloud Schematics
- D. IBM Cloud Code Engine

ANSWER: C

219. Which tool is integrated with AWS CodeStar for issue tracking and project management?

- A. Jenkins
- B. GitHub
- C. Selenium
- D. Atlassian JIRA Software

ANSWER: D

220. How does AWS CodeBuild handle scaling?

- A. It scales automatically based on build volume
- B. It requires manual scaling
- C. It uses a fixed number of build servers
- D. It scales through scheduled upgrades

ANSWER: A

221. Which AWS service integrates with AWS CodeBuild to manage code repositories?

- A. AWS CodeDeploy
- B. AWS CloudFormation
- C. AWS CodePipeline
- D. AWS CodeCommit

ANSWER: D

222. What is the primary advantage of AWS CodeCommit's encryption?

- A. It encrypts build artifacts only
- B. It encrypts files during upload only
- C. It encrypts source code repositories only
- D. It encrypts files in transit and at rest

ANSWER: D

223. How does AWS CodeDeploy minimize downtime during application deployment?
- A. By introducing changes incrementally and tracking application health
  - B. By deploying changes all at once
  - C. By deploying only to staging environments
  - D. By pausing deployments if an error occurs

ANSWER: A

224. What is the main purpose of AWS CodePipeline?
- A. To manage containerized applications
  - B. To run code without managing servers
  - C. To provide continuous integration and continuous delivery workflows
  - D. To build and test code

ANSWER: C

225. Which tool uses XML files for the build process and is inspired by the Unix make utility?
- A. Ant
  - B. Maven
  - C. Docker
  - D. Chef

ANSWER: A

226. How does AWS CodeDeploy minimize downtime during application deployment?
- A. By pausing deployments if an error occurs
  - B. By deploying changes all at once
  - C. By introducing changes incrementally and tracking application health
  - D. By deploying only to staging environments

ANSWER: C

227. What does Continuous Monitoring involve in the DevOps lifecycle?
- A. Monitoring the deployed application for issues and collecting user feedback
  - B. Automating code integration
  - C. Deploying applications to production servers
  - D. Building and packaging code

ANSWER: A

228. Which tool is known for automating software deployments to services like Amazon EC2 and AWS Lambda?
- A. AWS CodePipeline
  - B. AWS X-Ray
  - C. AWS CodeDeploy
  - D. AWS CodeBuild

ANSWER: C

229. Which of the following tools is used for container orchestration and auto-scaling?
- A. Apache Ant
  - B. Kubernetes
  - C. Rational ClearCase
  - D. Git

ANSWER: B

230. Which AWS feature helps you scale from a single instance to thousands?
- A. AWS Auto Scaling
  - B. AWS CloudFormation
  - C. AWS Identity and Access Management (IAM)
  - D. AWS Elastic Beanstalk

ANSWER: A

231. What is the main purpose of AWS CodeBuild?
- A. Configuration management
  - B. Continuous integration
  - C. Monitoring and logging
  - D. Version control

ANSWER: B

232. What is the maximum recommended size for a Git repository before you might receive an email to reduce its size?

- A. 2 GB
- B. 500 MB
- C. 1 GB
- D. 5 GB

ANSWER: C

233. What does the 'Deploy' stage in a Classic Delivery Pipeline usually do?

- A. It creates a backup of the application
- B. It tests the application
- C. It uploads the application to a production environment
- D. It compiles the code

ANSWER: C

234. In a pipeline, which stage typically comes after the Build stage?

- A. Review stage
- B. Prod stage
- C. Deploy stage
- D. Test stage

ANSWER: D

235. What type of environment property is used for multi-line values that can be base64 encoded?

- A. Text Area
- B. Properties File
- C. Text
- D. Secure

ANSWER: A

236. Which Tester type launches a shell command to run automated tests?

- A. Simple
- B. Custom Docker image
- C. Vulnerability Advisor
- D. Sauce Labs

ANSWER: A

237. How can you avoid route conflicts when deploying to multiple targets using Cloud Foundry?

- A. Use a different manifest file for each target
- B. Deploy all targets in parallel
- C. Specify the route by using cf push command arguments
- D. Use the same route for all targets

ANSWER: C

238. What is the purpose of DevOps Insights in IBM Cloud?

- A. To aggregate and analyze code, test, build, and deployment data
- B. To verify SSH key fingerprints
- C. To create personal access tokens
- D. To update your GitHub profile

ANSWER: A

239. In the context of DevOps Insights, what happens if your code does not meet the predefined policies?

- A. The code is automatically fixed
- B. The deployment is halted
- C. An email is sent to the developer
- D. The build process is accelerated

ANSWER: B

240. Which deprecated job type might still be loaded in the UI with an indicator?

- A. Custom Docker image job
- B. Sauce Labs Test job
- C. Kubernetes Deploy job
- D. IBM Globalization Pipeline Build job

ANSWER: D

241. What is required to run jobs in a Kubernetes cluster using the Deploy stage?

- A. API key
- B. Test script
- C. Docker image name
- D. Cluster name

ANSWER: D

242. What is the role of an API gateway in managing APIs?

- A. To manage and authenticate API traffic
- B. To create user interfaces
- C. To compile source code
- D. To store data logs

ANSWER: A

243. What is the main advantage of using JSON over XML in REST APIs?

- A. JSON is more complex than XML
- B. JSON is more readable and less verbose
- C. XML supports more data types
- D. XML is faster to parse

ANSWER: B

244. How does an API enhance security in data transfer?

- A. By eliminating the need for encryption
- B. By storing sensitive data in plaintext
- C. By abstracting functionality and including authorization credentials
- D. By increasing server load

ANSWER: C

245. Which of the following is a common use case for an API?

- A. Creating hardware drivers
- B. Developing internal software tools
- C. Allowing users to log in with existing social media profiles
- D. Accessing external databases directly

ANSWER: C

246. Which server type in API Connect is responsible for managing API analytics?

- A. Developer Portal server
- B. Analytics server
- C. Management server
- D. Gateway server

ANSWER: B

247. Which protocol is simpler and uses minimal bandwidth compared to SOAP?

- A. JSON-RPC
- B. REST
- C. XML-RPC
- D. HTTP

ANSWER: C

248. What is the purpose of the HTTP POST method in RESTful APIs?

- A. Retrieve data
- B. Create a new resource
- C. Update an existing resource
- D. Delete a resource

ANSWER: B

249. Which of the following principles is NOT part of REST design constraints?

- A. Statelessness
- B. Caching
- C. Uniform Interface
- D. Server-side Sessions

ANSWER: D

250. What type of API combines multiple data or service APIs into a single call?

- A. Open API
- B. Internal API
- C. Partner API
- D. Composite API

ANSWER: D

251. What is the primary role of the Kubelet service on a Kubernetes node?

- A. Providing API access
- B. Distributing workloads
- C. Storing configuration data
- D. Managing network rules and port forwarding

ANSWER: D

252. What is the primary role of the Kubelet service on a Kubernetes node?

- A. Providing API access
- B. Distributing workloads
- C. Storing configuration data
- D. Managing network rules and port forwarding

ANSWER: D

253. Which hybrid cloud scenario allows companies to handle peak loads by using public cloud resources temporarily?

- A. Backup and disaster recovery
- B. Burst scenario
- C. Safe harbor
- D. Application development with DevOps

ANSWER: B

254. Which AWS service handles API version management and monitoring?

- A. Amazon EC2
- B. AWS Lambda
- C. Amazon API Gateway
- D. Amazon S3

ANSWER: C

255. In a serverless architecture, what is a "cold start"?

- A. A problem with database integration.
- B. A delay in the function's execution due to container initialization.
- C. A situation where the container is running continuously.
- D. A feature of continuous integration pipelines.

ANSWER: B

256. In Kubernetes, which component is responsible for maintaining the desired state of the cluster by running various controllers?

- A. API Server
- B. Scheduler
- C. Controller Manager
- D. etcd

ANSWER: C

257. What problem does Kubernetes solve?

- A. Managing containerized applications across clusters
- B. Storing Docker images
- C. Deploying single containers on a local machine
- D. Writing code for serverless functions

ANSWER: A

258. Which component is used in Docker to create and manage containerized applications?

- A. Docker Hub
- B. Docker Swarm
- C. Docker Compose
- D. Docker Engine

ANSWER: D



259. Which of the following is NOT a characteristic of cloud-native applications?

- A. Container-based deployment
- B. Stateless services
- C. Large monolithic codebases
- D. Continuous Integration and Continuous Delivery (CI/CD)

ANSWER: C

260. In a microservices architecture, how do services typically communicate with each other?

- A. Message Queues
- B. Shared Database
- C. Direct method calls
- D. Lightweight protocols (e.g., REST, gRPC)

ANSWER: D

261. What does the DataPower Gateway support in terms of deployment?

- A. Only physical appliances
- B. Both virtual and physical appliances
- C. Only cloud-based environments
- D. Only virtual appliances

ANSWER: B

262. Why might an organization choose to 'Refactor' an application during the cloud migration process?

- A. To maintain the existing business model without any changes
- B. To switch to a completely new product or service
- C. To avoid any changes to the application's underlying technology
- D. To improve the application's architecture and performance for anticipated traffic spikes

ANSWER: D

263. What does IBM Garage™ focus on when working with clients?

- A. Reducing the number of cloud providers used
- B. Co-creating cloud-native applications using enterprise design thinking
- C. Exclusively migrating legacy applications to the cloud
- D. Only providing theoretical frameworks without practical implementation

ANSWER: B

264. What should be considered when assessing the overall risk and project duration of a migration?

- A. The specific applications to be migrated
- B. Only the cost of the cloud provider
- C. The complexity of the migration, potential risks, and timeline for completion
- D. The cost of maintaining on-premises hardware

ANSWER: C

265. What are some of the primary goals IBM aims to achieve through modernization efforts?

- A. Limit the use of modern development tools and methods
- B. Reduce operating costs, free up innovation capital, and enhance application security
- C. Focus only on migrating applications without optimizing them
- D. Increase technical debt and application complexity

ANSWER: B

266. What does the continuous development phase in DevOps involve?

- A. Deploying and operating the application in production environments
- B. Monitoring application performance and collecting user feedback
- C. Planning and coding the product, using tools like Git and Slack
- D. Coding, integrating, and testing the application

ANSWER: D

267. Which of the following is NOT typically considered a benefit of cloud migration?

- A. Improved scalability
- B. Cost savings
- C. Enhanced performance
- D. Increased maintenance costs

ANSWER: D

268. In which phase of migration planning should you conduct a cloud affinity assessment for each application?

- A. Legacy application migration
- B. Application identification and assessment
- C. Total cost of ownership (TCO) assessment
- D. Assess overall risk and project duration

ANSWER: B

269. What type of migration risk involves the potential for major changes to cause conflicts leading to downtime?

- A. Unexpected downtime
- B. Cultural issues or change management difficulties
- C. Unforeseen technical challenges
- D. Unanticipated costs

ANSWER: A

270. What are some potential challenges when migrating applications from bare metal hardware compared to virtualized environments?

- A. Virtualized environments require more complex migration strategies than bare metal.
- B. Bare metal environments often involve more complex dependencies and configurations, making migration more challenging.
- C. Bare metal environments are easier to migrate due to less dependency.
- D. Virtualized environments always require complete redesigns.

ANSWER: B

271. Why is it important for IBM to assess the total cost of ownership (TCO) in application migration?

- A. To compare costs of maintaining on-premises hardware with those of cloud services and migration expenses
- B. To avoid evaluating ongoing maintenance costs for legacy systems
- C. To exclude costs related to employee training and testing
- D. To only consider the cost of new software licenses

ANSWER: A

272. What is a key aspect of the "Learning" phase in the IBM Cloud DevOps lifecycle?

- A. Coding and building new features
- B. Deploying new features to production
- C. Gathering feedback from end users and improving future releases
- D. Monitoring system performance

ANSWER: C

273. How does continuous testing fit into the DevOps lifecycle according to IBM Cloud?

- A. It is a discrete phase between integration and deployment.
- B. It occurs continuously across various phases, including planning, development, and deployment.
- C. It is only performed after deployment.
- D. It is not considered a part of the DevOps lifecycle.

ANSWER: B

274. Which DevOps tool is used to simulate a test environment in a container for continuous testing?

- A. Git
- B. Jenkins
- C. Docker
- D. Slack

ANSWER: C

275. Which workflow in the IBM Cloud DevOps lifecycle involves ensuring features are running smoothly and addressing any issues?

- A. Planning
- B. Development
- C. Operations
- D. Integration

ANSWER: C

276. How does DevOps utilize cloud services to improve the development process?

- A. By enforcing fixed hardware and software allocations
- B. By allowing flexible resource allocation and scaling within budget
- C. By eliminating the need for version control
- D. By restricting communication between team members

ANSWER: B

277. Which phase in the DevOps lifecycle involves using tools like Ant, Maven, or Gradle?

- A. Continuous Integration
- B. Continuous Deployment
- C. Continuous Development
- D. Continuous Testing

ANSWER: C

278. Why is AWS considered beneficial for DevOps practices?

- A. It requires extensive setup and installation
- B. It offers limited scalability and programmability
- C. It provides fully managed services, automation, and scalability
- D. It lacks integration with third-party tools

ANSWER: C

279. What does the 'Programmable' feature of AWS allow you to do?

- A. Use AWS services only via graphical user interface
- B. Manually configure each AWS service
- C. Model and provision AWS resources using declarative templates and APIs
- D. Only use AWS services via the web interface

ANSWER: C

280. Which of the following is a disadvantage of the Waterfall model?

- A. Allows for easy adaptation to changing requirements
- B. Provides early visibility of project progress
- C. Difficulty in making changes during the testing phase
- D. Supports rapid development and deployment cycles

ANSWER: C

281. Which DevOps benefit involves managing infrastructure and development processes efficiently at scale?

- A. Speed
- B. Reliability
- C. Scale
- D. Security

ANSWER: C

282. What does the 'Security' benefit of DevOps ensure?

- A. Minimal control over compliance and security
- B. Automated compliance policies and fine-grained controls
- C. Reduced focus on security to accelerate development
- D. Faster release cycles at the expense of security

ANSWER: B

283. How does DevOps differ from Agile?

- A. Agile is a tool for version control, while DevOps is a testing framework
- B. DevOps integrates development and operations for a holistic approach, while Agile focuses on iterative development
- C. DevOps is solely focused on development, while Agile focuses on operations
- D. Agile emphasizes continuous integration, while DevOps focuses on manual processes

ANSWER: B

284. Which of the following is NOT a practice or framework under Agile methodologies?

- A. Kanban
- B. Scaled Agile Framework (SAFe)
- C. Waterfall Model
- D. Scrum

ANSWER: C

285. What is the purpose of Jenkins in a DevOps pipeline?

- A. Continuous Integration and Continuous Delivery
- B. Automated testing
- C. Version control
- D. Containerization

ANSWER: A

286. How does Puppet differ from Ansible in terms of architecture?

- A. Puppet is only for Unix systems, while Ansible is cross-platform
- B. Puppet does not have a GUI, while Ansible does
- C. Puppet is agent-based, while Ansible uses a client-server model
- D. Puppet uses a client-server model, while Ansible is agent-based

ANSWER: C

287. Which tool provides high cardinality analytics and detailed visualizations for debugging and post-incident reviews?

- A. Rational ClearCase
- B. Chef
- C. SignalFx
- D. SVN

ANSWER: C

288. What is the role of the YAML file in Kubernetes?

- A. Describes the desired state of a container cluster
- B. Automates configuration management
- C. Manages version control
- D. Defines the build process and dependencies

ANSWER: A

289. Which of the following tools is known for providing detailed insights into user experience, including app crashes and performance metrics?

- A. Catchpoint
- B. JUnit
- C. Splunk Cloud
- D. Raygun

ANSWER: D

290. How does Gremlin support chaos engineering?

- A. By simulating chaos and stress tests on systems
- B. By generating alerts and incident reports
- C. By providing real-user monitoring and error management
- D. By automating code deployments and build processes

ANSWER: A



291. What unique feature does AWS CodeBuild offer compared to traditional build services?

- A. It automates code deployments
- B. It provides a unified interface for managing software development activities
- C. It manages containerized applications
- D. It scales continuously and processes multiple builds concurrently

ANSWER: D

292. Which AWS service enables security and governance by providing configuration history and change notifications?

- A. AWS X-Ray
- B. AWS Config
- C. AWS OpsWorks
- D. AWS CodeCommit

ANSWER: B

293. How does AWS X-Ray help developers?

- A. By analyzing and debugging distributed applications
- B. By managing build and test processes
- C. By providing real-time API usage tracking
- D. By automatically scaling web applications

ANSWER: A

294. What is the primary function of AWS CodeCommit?

- A. To host secure and scalable private Git repositories
- B. To manage configuration with Chef
- C. To monitor cloud resources and applications
- D. To provide platform-as-a-service for web apps

ANSWER: A

295. What is a key benefit of AWS CodeBuild?

- A. Provides automatic scaling and concurrent builds
- B. Handles real-time monitoring and logging
- C. Eliminates the need for configuration management
- D. Manages source code versioning

ANSWER: A

296. How does AWS CodePipeline enhance the release process?

- A. By automating and integrating build, test, and deploy stages
- B. By providing a test automation framework
- C. By managing source code repositories
- D. By configuring infrastructure as code

ANSWER: A

297. Which AWS DevOps tool is fully managed and used for handling the complexity of updating applications?

- A. AWS CodePipeline
- B. AWS CodeDeploy
- C. AWS CodeBuild
- D. AWS CodeStar

ANSWER: B

298. Which IBM Cloud service provides centralized management of secrets used in applications and services?

- A. IBM Key Protect
- B. IBM Cloud App Configuration
- C. IBM Cloud Secrets Manager
- D. IBM Cloud Activity Tracker

ANSWER: C

299. What is a key challenge associated with DevOps that involves maintaining security practices?

- A. Managing legacy systems
- B. Increased tool diversity
- C. Security in CI/CD processes
- D. Proper mindset across the company

ANSWER: C



300. Which IBM Cloud service helps in deploying and operating Kubernetes clusters?

- A. IBM Cloud Monitoring
- B. IBM Cloud Satellite
- C. IBM Cloud Code Engine
- D. IBM Kubernetes Service

ANSWER: D

301. What type of cost model does AWS CodeBuild use?

- A. Pay-as-you-go based on storage used
- B. Pay-as-you-go based on the number of builds
- C. Subscription-based pricing for build servers
- D. Pay-as-you-go based on the number of minutes for compute resources

ANSWER: D

302. Which file specifies the build commands in AWS CodeBuild?

- A. buildspec.yml
- B. build.json
- C. build.yaml
- D. config.json

ANSWER: A

303. How does AWS CodeBuild ensure that build artifacts are securely managed?

- A. By requiring user-specific access controls only
- B. By encrypting artifacts during transmission only
- C. By storing artifacts in a secure, isolated environment
- D. By encrypting artifacts with customer-specific keys managed by AWS KMS

ANSWER: D

304. What is a key benefit of using AWS CodePipeline for software delivery?

- A. It manually tracks deployment status and errors
- B. It automates the build, test, and deploy phases of the release process
- C. It provides physical servers for hosting applications
- D. It requires manual setup of servers

ANSWER: B

305. How does AWS CodeDeploy ensure the reliability of deployments?

- A. By only deploying to new instances
- B. By deploying only in one region
- C. By allowing deployments to be stopped and rolled back if errors are detected
- D. By creating backup copies of the source code

ANSWER: C

306. What is the advantage of AWS CodePipeline's integration with third-party services?

- A. It eliminates the need for continuous integration
- B. It only works with AWS-native services
- C. It requires no integration with existing tools
- D. It allows for the use of custom plugins and services in the release process

ANSWER: D

307. How does IBM Cloud DevOps Insights help in the delivery process?

- A. By analyzing data from DevOps toolchain to advise on risks and improvements
- B. By automating build processes
- C. By generating code from starter kits
- D. By managing issue tracking

ANSWER: A

308. Which toolchain is specifically designed for canary testing in Kubernetes using Istio?

- A. Progressive rollout in Kubernetes using iter8
- B. Canary testing in Kubernetes using Istio
- C. Develop a Kubernetes app with Helm
- D. Develop a Code Engine app

ANSWER: B

309. What unique feature does the “Develop and test microservices on Kubernetes with Helm” toolchain provide?

- A. Continuous integration and deployment pipelines for microservices
- B. Integration with Google Analytics
- C. Image signing and signature check policy
- D. Automated monitoring and operations

ANSWER: A

310. Which toolchain is used to explore DevOps Insights with no setup required and contains data from reference toolchains and GitHub repos?

- A. Build your own toolchain
- B. DevOps Insights Quick Start Demo
- C. Garage Method tutorial with Cloud Foundry
- D. Continuous Delivery toolchain

ANSWER: B

311. Which step in creating a toolchain includes validating the Key Protect instance for securely storing API keys?

- A. Configuring Delivery Pipeline
- B. Reviewing toolchain settings
- C. Selecting tool integrations
- D. Creating the API key

ANSWER: D

312. What is the purpose of the toolchain diagram shown during toolchain creation?

- A. To illustrate the tool integrations and their lifecycle phases in the toolchain
- B. To display the costs associated with the toolchain
- C. To provide a list of available toolchains
- D. To show the user interface of each tool

ANSWER: A

313. In which scenario would you use the "Develop a Cloud Foundry app" toolchain template?

- A. When you are configuring continuous delivery for Kubernetes apps
- B. When you want to create a microservices app with image signing
- C. When you want to set up a toolchain for monitoring and alerting
- D. When you need to develop and deploy a Cloud Foundry app with preconfigured pipelines

ANSWER: D

314. What happens if you select a source code tool integration such as GitHub when creating a toolchain?

- A. The toolchain sends alerts to PagerDuty
- B. The toolchain is configured to use local storage
- C. The sample GitHub repository is cloned into your GitHub account
- D. The toolchain is set up with automated cloud backups

ANSWER: C

315. How can you control the parallel execution of stages in the Classic Delivery Pipeline?

- A. By using multiple pipeline instances
- B. By defining parallel branches in the pipeline configuration
- C. By configuring concurrent execution limits in the pipeline settings
- D. By setting up separate toolchains for each stage

ANSWER: B

316. What is the role of a 'build trigger' in the Classic Delivery Pipeline?
- A. To deploy artifacts to production
  - B. To manage user access to the pipeline
  - C. To start a pipeline run based on a specific event or schedule
  - D. To generate build reports

ANSWER: C

317. In the Classic Delivery Pipeline, how can you handle sensitive data such as passwords or API keys securely?
- A. By storing them in plaintext in the code repository
  - B. By embedding them directly in the pipeline configuration file
  - C. By creating public access keys
  - D. By using environment variables or secret management tools

ANSWER: D

318. What is the significance of 'pipeline variables' in managing builds in the Classic Delivery Pipeline?
- A. They allow dynamic configuration and parameterization of the pipeline
  - B. They store metadata about build artifacts
  - C. They manage user permissions and roles
  - D. They control the versioning of the code repository

ANSWER: A

319. How can you securely handle sensitive data such as API keys in pipeline jobs?
- A. By including them in the pipeline configuration file
  - B. By embedding them in the script
  - C. By storing them in plaintext within the job
  - D. By using service API keys with restricted access

ANSWER: D

320. Which command can be run with sudo in a pipeline job?
- A. '/usr/bin/grep'
  - B. '/usr/bin/ls'
  - C. '/usr/bin/rm'
  - D. '/usr/bin/apt-get'

ANSWER: D

321. If a job fails in a stage, what is the default behavior regarding subsequent jobs in that stage?
- A. The pipeline restarts the failed job
  - B. Subsequent jobs continue to run
  - C. The pipeline sends a notification
  - D. Subsequent jobs do not run

ANSWER: D

322. How can you access the configuration from a deprecated job type in the Classic Delivery Pipeline?
- A. Use the IBM Cloud Devtool or Delivery Pipeline API
  - B. Recreate the pipeline with a new job type
  - C. Contact IBM Cloud support
  - D. Use an alternative job type within the UI

ANSWER: A

323. When creating computed properties in a pipeline, how can you ensure that subsequent stages use these properties?
- A. Write computed properties to a build.properties file and use it in subsequent stages
  - B. Include the computed properties directly in the manifest file
  - C. Hardcode properties in the deploy script
  - D. Define properties in the environment properties tab of each stage

ANSWER: A

324. What is a key consideration when configuring a deploy job for a Cloud Foundry app with multiple services?
- A. Ensure that all services are listed in the manifest file
  - B. Deploy to a single region only
  - C. Configure environment variables only in the build job
  - D. Use the cf push command without any arguments

ANSWER: A

325. How does the integration of Git Repos and Issue Tracking with toolchains benefit a development pipeline?
- A. It provides automated build and test triggers based on issue tracking
  - B. It facilitates fine-grained access controls and code review
  - C. It allows for direct deployment from Git Repos
  - D. It replaces the need for a separate issue tracker

ANSWER: B

326. How can you verify the host key fingerprint for a headless connection to Git over SSH using a script?
- A. By using 'ssh-keyscan' and comparing the fingerprint with an expected value
  - B. By setting up a firewall rule to verify the connection
  - C. By manually checking the host key on the server
  - D. By using 'ssh-keygen' and updating the 'known\_hosts' file directly

ANSWER: A

327. What should you do if the host key fingerprint does not match the expected value?
- A. Recreate the personal access token
  - B. Proceed with the connection anyway
  - C. Terminate the connection and alert the administrator
  - D. Update the SSH key on the server

ANSWER: C

328. What is a policy gate in DevOps Insights used for?
- A. To authenticate with Git repos
  - B. To update the display name in the DevOps dashboard
  - C. To customize rules and standards for code quality
  - D. To store build artifacts

ANSWER: C

329. What is an example of an API offering data monetization?
- A. Google Maps API
  - B. AccuWeather API
  - C. Twitter API
  - D. PayPal API

ANSWER: B

330. How does a travel booking site utilize APIs for flight comparisons?
- A. By manually entering data from airlines
  - B. By directly accessing airline databases
  - C. By displaying static flight information
  - D. By aggregating data from multiple sources through APIs

ANSWER: D

331. Which aspect of API functionality allows an application to plot travel routes or track moving items?
- A. Google Maps API
  - B. PayPal API
  - C. Facebook Login API
  - D. Twitter API

ANSWER: A



332. What is the purpose of the 'cacheability' constraint in REST API design?

- A. To ensure resources are always fresh and updated
- B. To allow resources to be cached to improve performance and scalability
- C. To restrict the size of the resources
- D. To ensure that server applications do not store any client-side data

ANSWER: B

333. Which API type remains hidden from external users and is intended for internal use within a company?

- A. Partner API
- B. Open API
- C. Internal API
- D. Composite API

ANSWER: C

334. In REST API design, what does 'layered system architecture' refer to?

- A. A system where the client and server applications are directly connected
- B. A system where calls and responses pass through multiple intermediaries
- C. A system where the server stores state information for clients
- D. A system where executable code is sent on-demand

ANSWER: B

335. Which REST constraint ensures that a client and server can evolve independently without affecting each other?

- A. Statelessness
- B. Client-Server Separation
- C. Code on Demand
- D. Layered System

ANSWER: B

336. What does the "Cacheability" constraint in REST design imply?

- A. Resources cannot be cached
- B. All data must be stored in a database
- C. Only static data can be cached
- D. Resources can be cached to improve performance and scalability

ANSWER: D

337. In REST API design, what is a composite API used for?

- A. Handling authentication
- B. Encrypting data during transmission
- C. Generating dynamic content
- D. Combining multiple data or service APIs into one endpoint

ANSWER: D

338. What is the primary role of the OpenAPI Specification (OAS) in API design?

- A. To handle data encryption
- B. To define security protocols
- C. To describe an API's endpoints, operations, and parameters
- D. To manage API lifecycle

ANSWER: C

339. In a serverless architecture, what is the primary role of a cloud provider?

- A. Develop custom server-side applications
- B. Manage physical server hardware
- C. Create and manage container orchestration
- D. Dynamically allocate server resources and run code

ANSWER: D



340. What is the main benefit of using Functions-as-a-Service (FaaS) in serverless computing?

- A. Manual scaling of server instances
- B. Continuous server maintenance
- C. Complete control over hardware configurations
- D. Running custom server-side logic without managing the underlying infrastructure

ANSWER: D

341. How does Amazon API Gateway help the UK Driver and Vehicle Licensing Agency (DVLA) handle high transaction volumes?

- A. By enabling elastic scaling and rate limiting
- B. By providing fixed server capacities
- C. By allowing the use of on-premises hardware
- D. By reducing the need for serverless computing

ANSWER: A

342. Which of the following is the correct order of steps to create and test an AWS Lambda function?

- A. Create a role, write code, create function, test function
- B. Write code, create function, configure test event, invoke function
- C. Login to AWS, create function, configure test event, invoke function
- D. Open Lambda console, write code, create function, configure role

ANSWER: C

343. What is the first step in creating multiple connected AWS Lambda functions?

- A. Write the function code
- B. Create Function URLs
- C. Login into your AWS account and access the Lambda console
- D. Configure the test events

ANSWER: C

344. Which runtime is used for the Serverless and ServerlessParam Lambda functions?

- A. Ruby
- B. Java
- C. Node.js
- D. Python 3.9

ANSWER: D

345. Which role is used for the Serverless Lambda function?

- A. lambda\_basic\_execution
- B. ServerlessRole
- C. S3FullAccess
- D. AdministratorAccess

ANSWER: A

346. What should you do after creating the Lambda functions?

- A. Change the runtime to a different language
- B. Create a new AWS account
- C. Delete the functions immediately
- D. Configure the test events for each function

ANSWER: D

347. What is the purpose of creating a Function URL in the Lambda configuration?

- A. To change the execution role
- B. To delete the Lambda function
- C. To add environment variables
- D. To trigger the function through a web request

ANSWER: D

348. Which option allows you to manage multiple Lambda functions as a group?

- A. Execution timeout
- B. Tags
- C. Environment variables
- D. Memory allocation

ANSWER: B

349. What should you do after creating the IBM Cloud function to see the initial result?

- A. Click the Invoke button
- B. Click the Save button
- C. Change the runtime
- D. Enable Web Action

ANSWER: A

350. How do you modify the function's output message?

- A. By creating a new function
- B. By disabling the Web Action
- C. By changing the runtime environment
- D. By editing the function code and clicking Save

ANSWER: D

351. How can you invoke the IBM Cloud function as a REST API?

- A. By enabling it as a Web Action
- B. By modifying the runtime
- C. By adding an API Gateway
- D. By setting up a new server

ANSWER: A

352. What is the purpose of creating the Triggers in IBM Cloud Functions?

- A. To create a REST API
- B. To link multiple connected functions
- C. To test the function
- D. To deploy the function

ANSWER: B

353. What is a common reason for migrating an application?

- A. To reduce software licensing costs
- B. To optimize performance
- C. To eliminate all dependencies
- D. To create a new user interface

ANSWER: B

354. What might be a goal of application migration?

- A. To reduce the user base
- B. To enhance scalability and security
- C. To make the application slower
- D. To increase the complexity of the application

ANSWER: B

355. What is application migration?

- A. The process of developing a new software application
- B. The process of moving a software application from one computing environment to another
- C. The process of enhancing an existing application
- D. The process of testing an application for bugs

ANSWER: B

356. What is the purpose of "The 6 Rs of Cloud Migration"?

- A. To define cloud service types
- B. To assess application performance
- C. To list cloud service providers
- D. To organize strategies for cloud migration

ANSWER: D

357. Which of the following is NOT one of the 6 Rs of Cloud Migration?

- A. Retire
- B. Rehost
- C. Reengineer
- D. Repurchase

ANSWER: C

358. What is the first step in the cloud migration process?

- A. Perform a cost assessment
- B. Determine which workloads will be relocated
- C. Assign a team for migration
- D. Communicate goals to stakeholders

ANSWER: B

359. What should be prioritized before starting the migration?
- A. Determining the cloud provider's reliability
  - B. Establishing KPIs for the migration
  - C. Assigning roles to the stakeholders
  - D. Prioritizing which workloads to migrate first

ANSWER: D

360. In the context of migration, what does KPI stand for?
- A. Key Project Initiatives
  - B. Key Performance Indicator
  - C. Knowledge Performance Index
  - D. Key Process Improvement

ANSWER: B

361. What does IBM Cloud offer for cloud migration?
- A. Limited migration options
  - B. A full suite of cloud migration tools and services
  - C. Only virtual servers
  - D. Only data storage solutions

ANSWER: B

362. Which of the following Kubernetes components is responsible for ensuring that the desired number of container instances is running?
- A. Pods
  - B. Services
  - C. ReplicaSets
  - D. Deployments

ANSWER: C

363. In Docker, what is the primary purpose of Docker Hub?
- A. To monitor container performance
  - B. To provide a registry for storing and sharing Docker images
  - C. To run Docker containers
  - D. To define and manage Docker Compose files

ANSWER: B

364. Which feature of Kubernetes allows for the automatic scaling of applications based on load?
- A. Horizontal Pod Autoscaler
  - B. ConfigMaps
  - C. StatefulSets
  - D. Kubernetes Dashboard

ANSWER: A

365. What is the key difference between a stateless and a stateful application in the context of FaaS?
- A. Stateless applications require continuous network connections, while stateful applications do not.
  - B. Stateless applications do not maintain any state between function invocations, while stateful applications do.
  - C. Stateless applications run indefinitely, while stateful applications run for a short time.
  - D. Stateless applications use local storage, while stateful applications use cloud storage.

ANSWER: B

366. In a Kubernetes cluster, what is the main purpose of the Kubernetes Proxy service?
- A. Running containerized applications
  - B. Forwarding requests to the correct containers and performing basic load balancing
  - C. Managing container images
  - D. Storing configuration data

ANSWER: B

367. What does the 'develop once, run anywhere' approach refer to in the context of hybrid cloud application development?
- A. Developing applications that run only on private clouds
  - B. Ensuring applications can be deployed across both public and private cloud environments seamlessly
  - C. Developing applications that are optimized for a single environment
  - D. Creating applications that cannot be ported between different cloud environments

ANSWER: B

368. Which Kubernetes component ensures that the number of running instances of a pod matches the desired state specified by the user?

- A. API Server
- B. etcd
- C. Scheduler
- D. ReplicaSet

ANSWER: D

369. What key feature of a hybrid cloud infrastructure allows IT departments to act as cloud brokers and provide a unified service catalog?

- A. Unified technology stack across public and private clouds
- B. Container security policies
- C. Edge Computing integration
- D. Legacy system replacement

ANSWER: A

370. What is the primary advantage of using Kubernetes for managing containers in a microservices architecture?

- A. It allows for single-node deployments only
- B. It provides built-in security for applications
- C. It offers automatic container orchestration and scaling
- D. It replaces the need for a load balancer

ANSWER: C

371. In an event-driven serverless architecture, what triggers the execution of serverless functions?

- A. Scheduled tasks
- B. Events or HTTP requests
- C. Manual triggers
- D. Background services

ANSWER: B

372. Which architecture model focuses on breaking down an application into discrete components that can be developed, deployed, and scaled independently?

- A. Monolithic Architecture
- B. Microservices Architecture
- C. 3-Tier Architecture
- D. Serverless Architecture

ANSWER: B

373. What is a common challenge when transitioning from a monolithic architecture to a microservices architecture?

- A. Reduced scalability
- B. Increased complexity in managing independent services
- C. Simplified deployment
- D. Decreased need for API management

ANSWER: B

374. What is the key difference between 'Replatforming' and 'Rehosting'?

- A. Replatforming involves creating a new application, whereas Rehosting involves improving an existing one.
- B. Replatforming requires changing the application's underlying technology, while Rehosting does not.
- C. Replatforming and Rehosting are essentially the same thing.
- D. Replatforming is always less costly than Rehosting.

ANSWER: B

375. Which cloud migration strategy is best suited for applications that are too difficult to migrate?

- A. Refactor
- B. Repurchase
- C. Retain
- D. Retire

ANSWER: C



376. What does the 'Retire' strategy in cloud migration entail?
- A. Identifying and discontinuing applications that are no longer needed
  - B. Moving applications to a new cloud environment
  - C. Keeping applications on-premises
  - D. Redesigning applications for the cloud

ANSWER: A

377. What does the 'Total Cost of Ownership (TCO)' assessment in migration planning involve?
- A. Evaluating only the costs of cloud provider services
  - B. Comparing hardware costs with cloud provider costs and migration expenses
  - C. Determining the cost of maintaining legacy applications only
  - D. Calculating only the migration costs without considering ongoing expenses

ANSWER: B

378. Which migration strategy involves redesigning an application to improve its performance and reliability?
- A. Repurchase
  - B. Refactor
  - C. Rehost
  - D. Replatform

ANSWER: B

379. What might be a significant challenge when migrating legacy applications to the cloud?
- A. Improved performance in modern environments
  - B. Simplicity in migration
  - C. Lower maintenance costs
  - D. Outdated software, which can be expensive and raise security concerns

ANSWER: D

380. In IBM's strategy, what is the role of AI-driven insights and visualizations?
- A. To reduce the need for cloud services
  - B. To manage all aspects of IT operations permanently
  - C. To develop a custom solution and ROI-driven roadmap
  - D. To replace existing applications with new ones

ANSWER: C

381. How does IBM's approach to application deployment and management benefit organizations?
- A. By increasing manual processes for control
  - B. By providing no support for security and compliance
  - C. By reducing costs while increasing operational efficiency and visibility
  - D. By focusing only on on-premises environments

ANSWER: C

382. After installing the Migration Toolkit, which command will give you a list of help commands for analysis?
- A. `'java -jar binaryAppScanner.jar --help'`
  - B. `'java -jar binaryAppScannerInstaller.jar --analyze'`
  - C. `'java -jar binaryAppScannerInstaller.jar --help'`
  - D. `'java -jar binaryAppScanner.jar binaryInputPath --analyze'`

ANSWER: C

383. When running the `'java -jar binaryAppScanner.jar binaryInputPath --analyze'` command, what happens if you don't specify a different directory for extraction?
- A. The files will extract to a default directory
  - B. The extraction will fail
  - C. The files will not extract
  - D. The files will extract to a random directory

ANSWER: A



384. Which tool is primarily used to manage application migration from WebSphere Application Server traditional V8.5.5 to Liberty?

- A. Command-line interface
- B. HTTPS download tool
- C. Migration Toolkit for Application Binaries
- D. WebSphere Liberty V22.0.0.5 packages

ANSWER: C

385. What is the first command you run to add all new or modified files into staging before committing?

- A. 'git push origin main'
- B. 'git add .'
- C. 'git commit -m "initial commit"'
- D. 'git pull'

ANSWER: B

386. Which tool is integrated into the IBM Cloud DevOps toolchain to manage code repositories?

- A. Docker
- B. Kubernetes
- C. GitHub
- D. Jenkins

ANSWER: C

387. What is the correct sequence of actions to push changes to the main branch in GitHub?

- A. 'git add .', 'git push origin main', 'git commit -m "initial commit"'
- B. 'git push origin main', 'git add .', 'git commit -m "initial commit"'
- C. 'git add .', 'git commit -m "initial commit"', 'git push origin main'
- D. 'git commit -m "initial commit"', 'git push origin main', 'git add .'

ANSWER: C

388. In the IBM Cloud toolchain, what does the "Delivery Pipeline" tool enable?

- A. Creating GitHub repositories
- B. Continuous integration and continuous delivery (CI/CD)
- C. Managing API services
- D. Deploying on Kubernetes

ANSWER: B

389. What do you need to do if you see an error about needing a continuous delivery service in IBM Cloud?

- A. Add the "Continuous Delivery" service
- B. Restart the pipeline
- C. Create a new toolchain
- D. Reconfigure the GitHub integration

ANSWER: A

390. What should you do to trigger the "Test Stage" in your pipeline?

- A. Open a new GitHub repository
- B. Open or update a pull request
- C. Push a commit directly to the main branch
- D. Delete a branch

ANSWER: B

391. When should the "Deploy" stage be triggered in the toolchain?

- A. When a pull request is opened
- B. When a commit is pushed to the main/master branch
- C. When a new branch is created
- D. When a GitHub repository is deleted

ANSWER: B

392. Which deployment option is commonly used in the "Deploy" stage in IBM Cloud?

- A. Docker Swarm
- B. Terraform
- C. Cloud Foundry
- D. Jenkins

ANSWER: C

393. What is the first step in creating an AWS Lambda function?

- A. Login into your AWS account and access the Lambda console
- B. Write the function code
- C. Create a Function URL
- D. Configure the test event

ANSWER: A

394. Which runtime is selected when creating the lambdaBlog function?

- A. Ruby
- B. Node.js
- C. Java
- D. Python 3.9

ANSWER: D

395. What role should you choose when creating the AWS Lambda function?

- A. Create a new role
- B. Choose a custom role
- C. Choose an existing role: lambda\_basic\_execution
- D. Choose the default AWS role

ANSWER: C

396. What can you configure in the Lambda function after it is created?

- A. Memory and environment variables
- B. Web server settings
- C. Database connections
- D. Network firewalls

ANSWER: A

397. Which option allows you to trigger the Lambda function with a test event?

- A. Write custom Python code
- B. Click "Create Function"
- C. Choose Test in the Lambda console
- D. Modify the function URL

ANSWER: C

398. What should you do after modifying the JSON code for the test event?

- A. Delete the Lambda function
- B. Click "Invoke"
- C. Click "Test" to invoke the function
- D. Modify the environment variables

ANSWER: C

399. After successfully executing the Lambda function, what should you do next?

- A. Configure additional roles
- B. Restart the AWS Console
- C. Copy the Function URL and test it in a browser
- D. Modify the runtime to a different language

ANSWER: C

400. What should you do after finishing your work with the Lambda function?

- A. Change the runtime environment
- B. Keep the function for future use
- C. Delete the Lambda function
- D. Download the function logs

ANSWER: C

401. Where do you configure the execution timeout and memory allocation for the Lambda function?

- A. In the AWS CLI
- B. In the Lambda function code editor
- C. In the IAM console
- D. In the Lambda console under Configuration

ANSWER: D

402. What is a key benefit of building containerized applications according to IBM?

- A. Exclusively designed for on-premises servers
- B. Reduced security measures
- C. Increased time to market
- D. Optimized for scale and performance with continuous delivery and DevSecOps principles

ANSWER: D

403. In which phase of the DevOps lifecycle is the application monitored to ensure service uptime and optimal performance?

- A. Deploy
- B. Plan
- C. Code
- D. Monitor

ANSWER: D

404. Which tool is used for version control and maintaining code changes in DevOps?

- A. Selenium
- B. Git
- C. Slack
- D. Jenkins

ANSWER: B

405. How does continuous integration benefit the development process in DevOps?

- A. By avoiding the use of automation tools
- B. By delaying code integration until the end of the project
- C. By regularly updating the central repository and automating build and test processes
- D. By only focusing on manual testing

ANSWER: C

406. In which phase does the application get deployed to the production server?

- A. Continuous Integration
- B. Continuous Testing
- C. Continuous Operations
- D. Continuous Deployment

ANSWER: D

407. How does Kubernetes help in the continuous operations phase of DevOps?

- A. By integrating code changes
- B. By eliminating downtime during software updates
- C. By automating the testing process
- D. By reducing code errors

ANSWER: B

408. What is the purpose of the continuous operations phase in DevOps?

- A. To ensure high uptime and manage containerized applications
- B. To monitor application performance
- C. To gather user feedback
- D. To plan and code new features

ANSWER: A

409. What is the purpose of Continuous Integration in the DevOps lifecycle?

- A. To gather and evaluate user feedback
- B. To integrate and automate different stages of the DevOps lifecycle
- C. To deploy code to the production environment
- D. To monitor the performance of deployed applications

ANSWER: B

410. Which AWS feature helps you scale from a single instance to thousands?

- A. AWS Identity and Access Management (IAM)
- B. AWS Elastic Beanstalk
- C. AWS CloudFormation
- D. AWS Auto Scaling

ANSWER: D

411. What does Continuous Monitoring involve in the DevOps lifecycle?

- A. Deploying applications to production servers
- B. Automating code integration
- C. Monitoring the deployed application for issues and collecting user feedback
- D. Building and packaging code

ANSWER: C

412. Which of the following is an advantage of the Waterfall model?

- A. Flexibility in handling changing requirements
- B. Continuous integration and deployment
- C. Easy testing and analysis
- D. Rapid iteration and feedback

ANSWER: C

413. How does DevOps improve collaboration between teams?

- A. By focusing solely on development and ignoring operational concerns
- B. By integrating development and operations teams and sharing responsibilities
- C. By maintaining separate workflows for development and operations
- D. By reducing the frequency of communication between teams

ANSWER: B

414. Which Agile framework focuses on frequent releases and responding to changing customer requirements?

- A. Kanban
- B. Scrum
- C. Lean Development
- D. Extreme Programming (XP)

ANSWER: D

415. Which tool is used for containerization in DevOps?

- A. Selenium
- B. Git
- C. Jenkins
- D. Docker

ANSWER: D

416. Which of the following tools is used for container orchestration and auto-scaling?

- A. Kubernetes
- B. Apache Ant
- C. Rational ClearCase
- D. Git

ANSWER: A

417. Which tool uses XML files for the build process and is inspired by the Unix make utility?

- A. Chef
- B. Maven
- C. Docker
- D. Ant

ANSWER: D

418. What is the main purpose of Prometheus in DevOps?

- A. Version control
- B. Configuration management
- C. Monitoring and time-series data
- D. Containerization

ANSWER: C

419. What is the main purpose of AWS CodePipeline?

- A. To run code without managing servers
- B. To provide continuous integration and continuous delivery workflows
- C. To build and test code
- D. To manage containerized applications

ANSWER: B

420. What directory is created after running the extraction process in the migration toolkit installation?

- A. wlp
- B. liberty
- C. wamt
- D. binaryAppScanner

ANSWER: C

421. What is the purpose of the Migration Toolkit for Application Binaries?

- A. To unzip files
- B. To analyze applications for migration
- C. To download WebSphere packages
- D. To run command-line scripts

ANSWER: B

422. Which command would you use to display the default report for migration from WebSphere Application Server traditional V8.5.5 to Liberty?

- A. 'java -jar binaryAppScannerInstaller.jar --analyze'
- B. 'java -jar binaryAppScanner.jar binaryInputPath --analyze'
- C. 'java -jar binaryAppScannerInstaller.jar --help'
- D. 'java -jar binaryAppScanner.jar --analyze'

ANSWER: B

423. What is a common challenge when transitioning from a monolithic architecture to a microservices architecture?

- A. Increased complexity in managing independent services
- B. Reduced scalability
- C. Simplified deployment
- D. Decreased need for API management

ANSWER: A

424. In Docker, what is the primary purpose of Docker Hub?

- A. To run Docker containers
- B. To provide a registry for storing and sharing Docker images
- C. To define and manage Docker Compose files
- D. To monitor container performance

ANSWER: B

425. What key feature of a hybrid cloud infrastructure allows IT departments to act as cloud brokers and provide a unified service catalog?

- A. Legacy system replacement
- B. Container security policies
- C. Unified technology stack across public and private clouds
- D. Edge Computing integration

ANSWER: C

426. Which command is used to install the migration analysis tool?

- A. 'java -jar binaryAppScanner.jar'
- B. 'java -jar binaryAppScannerInstaller.jar --help'
- C. 'java -jar binaryAppScannerInstaller.jar'
- D. 'java -jar binaryInputPath --analyze'

ANSWER: C



427. Which Kubernetes component ensures that the number of running instances of a pod matches the desired state specified by the user?

- A. Scheduler
- B. API Server
- C. ReplicaSet
- D. etcd

ANSWER: C

428. What does the 'develop once, run anywhere' approach refer to in the context of hybrid cloud application development?

- A. Developing applications that are optimized for a single environment
- B. Ensuring applications can be deployed across both public and private cloud environments seamlessly
- C. Developing applications that run only on private clouds
- D. Creating applications that cannot be ported between different cloud environments

ANSWER: B

429. What is the primary advantage of using Kubernetes for managing containers in a microservices architecture?

- A. It provides built-in security for applications
- B. It offers automatic container orchestration and scaling
- C. It allows for single-node deployments only
- D. It replaces the need for a load balancer

ANSWER: B

430. In a Kubernetes cluster, what is the main purpose of the Kubernetes Proxy service?

- A. Running containerized applications
- B. Forwarding requests to the correct containers and performing basic load balancing
- C. Managing container images
- D. Storing configuration data

ANSWER: B

431. Which feature of Kubernetes allows for the automatic scaling of applications based on load?

- A. ConfigMaps
- B. Horizontal Pod Autoscaler
- C. Kubernetes Dashboard
- D. StatefulSets

ANSWER: B

432. What is the first step in the migration analysis procedure?

- A. Unzip the folder
- B. Download WebSphere Liberty V22.0.0.5 packages
- C. Install the Migration Toolkit for Application Binaries
- D. Run the migration analysis tool

ANSWER: B

433. What is the key difference between a stateless and a stateful application in the context of FaaS?

- A. Stateless applications do not maintain any state between function invocations, while stateful applications do.
- B. Stateless applications run indefinitely, while stateful applications run for a short time.
- C. Stateless applications require continuous network connections, while stateful applications do not.
- D. Stateless applications use local storage, while stateful applications use cloud storage.

ANSWER: A

434. What does AWS CodeBuild primarily provide?

- A. Configuration management
- B. Continuous integration
- C. Monitoring and logging
- D. Version control

ANSWER: B

435. Which tool is known for automating software deployments to services like Amazon EC2 and AWS Lambda?

- A. AWS CodePipeline
- B. AWS CodeBuild
- C. AWS CodeDeploy
- D. AWS X-Ray

ANSWER: C

436. Which toolchain uses IBM Cloud Kubernetes Service and Razee for application development and deployment?

- A. Develop a Kubernetes app with Helm
- B. Develop a Kubernetes app with image signing
- C. Develop a Kubernetes app with Razee
- D. Develop and test microservices on Kubernetes with Helm

ANSWER: C

437. What feature of AWS CodeDeploy helps maximize application availability during deployments?

- A. Automatic scaling
- B. Centralized control
- C. Incremental changes and health tracking
- D. Custom build environments

ANSWER: C

438. How does AWS CodeBuild handle scaling?

- A. It requires manual scaling
- B. It scales automatically based on build volume
- C. It uses a fixed number of build servers
- D. It scales through scheduled upgrades

ANSWER: B

439. Which AWS service can be integrated into AWS CodePipeline for continuous integration?

- A. AWS CodeDeploy
- B. AWS CodeCommit
- C. AWS CodeBuild
- D. AWS CloudFormation

ANSWER: C

440. What does the IBM Cloud Continuous Delivery service provide?

- A. Cloud storage
- B. Delivery Pipeline, Git Repos, and Eclipse Orion Web IDE
- C. Code generation technology
- D. Data analytics

ANSWER: B

441. Which toolchain template is preconfigured with Docker image signing and signature check policy?

- A. Develop a Kubernetes app with Razee
- B. Develop a Kubernetes app with Helm
- C. Develop a Kubernetes app with image signing
- D. Develop and test microservices on Kubernetes with Helm

ANSWER: C

442. Which tool is integrated with AWS CodeStar for issue tracking and project management?

- A. Atlassian JIRA Software
- B. GitHub
- C. Jenkins
- D. Selenium

ANSWER: A

443. Which of the following can AWS CodePipeline integrate with for managing source code?

- A. Only AWS CodeCommit
- B. Only GitHub
- C. GitHub or AWS CodeCommit
- D. Only AWS CloudFormation

ANSWER: C

444. How does AWS CodeDeploy minimize downtime during application deployment?

- A. By deploying changes all at once
- B. By introducing changes incrementally and tracking application health
- C. By pausing deployments if an error occurs
- D. By deploying only to staging environments

ANSWER: B

445. What must be configured in the Tool Integrations section when creating a toolchain with Delivery Pipeline?

- A. A cloud storage instance
- B. A continuous integration server
- C. An IBM Cloud API Key
- D. A virtual machine

ANSWER: C

446. Which command is used to install the migration analysis tool?

- A. 'java -jar binaryAppScanner.jar'
- B. 'java -jar binaryAppScannerInstaller.jar --help'
- C. 'java -jar binaryAppScannerInstaller.jar'
- D. 'java -jar binaryInputPath --analyze'

ANSWER: C

447. What is the primary advantage of AWS CodeCommit's encryption?

- A. It encrypts files during upload only
- B. It encrypts files in transit and at rest
- C. It encrypts build artifacts only
- D. It encrypts source code repositories only

ANSWER: B

448. What is the purpose of the 'cacheability' constraint in REST API design?

- A. To ensure resources are always fresh and updated
- B. To allow resources to be cached to improve performance and scalability
- C. To ensure that server applications do not store any client-side data
- D. To restrict the size of the resources

ANSWER: B

449. What does the "Cacheability" constraint in REST design imply?

- A. Resources can be cached to improve performance and scalability
- B. All data must be stored in a database
- C. Resources cannot be cached
- D. Only static data can be cached

ANSWER: A

450. In REST API design, what does 'layered system architecture' refer to?

- A. A system where the client and server applications are directly connected
- B. A system where calls and responses pass through multiple intermediaries
- C. A system where the server stores state information for clients
- D. A system where executable code is sent on-demand

ANSWER: B

451. Which REST constraint ensures that a client and server can evolve independently without affecting each other?

- A. Layered System
- B. Client-Server Separation
- C. Statelessness
- D. Code on Demand

ANSWER: B

452. Which API type remains hidden from external users and is intended for internal use within a company?

- A. Composite API
- B. Partner API
- C. Internal API
- D. Open API

ANSWER: C

453. In REST API design, what is a composite API used for?

- A. Combining multiple data or service APIs into one endpoint
- B. Generating dynamic content
- C. Encrypting data during transmission
- D. Handling authentication

ANSWER: A

454. What is the primary role of the OpenAPI Specification (OAS) in API design?

- A. To define security protocols
- B. To describe an API's endpoints, operations, and parameters
- C. To manage API lifecycle
- D. To handle data encryption

ANSWER: B

455. What is the main benefit of using Functions-as-a-Service (FaaS) in serverless computing?

- A. Continuous server maintenance
- B. Complete control over hardware configurations
- C. Running custom server-side logic without managing the underlying infrastructure
- D. Manual scaling of server instances

ANSWER: C

456. How does Amazon API Gateway help the UK Driver and Vehicle Licensing Agency (DVLA) handle high transaction volumes?

- A. By providing fixed server capacities
- B. By allowing the use of on-premises hardware
- C. By enabling elastic scaling and rate limiting
- D. By reducing the need for serverless computing

ANSWER: C

457. What unique feature does the “Develop and test microservices on Kubernetes with Helm” toolchain provide?

- A. Image signing and signature check policy
- B. Continuous integration and deployment pipelines for microservices
- C. Automated monitoring and operations
- D. Integration with Google Analytics

ANSWER: B

458. Which toolchain is used to explore DevOps Insights with no setup required and contains data from reference toolchains and GitHub repos?

- A. DevOps Insights Quick Start Demo
- B. Garage Method tutorial with Cloud Foundry
- C. Build your own toolchain
- D. Continuous Delivery toolchain

ANSWER: A



459. What is the purpose of the toolchain diagram shown during toolchain creation?

- A. To display the costs associated with the toolchain
- B. To illustrate the tool integrations and their lifecycle phases in the toolchain
- C. To provide a list of available toolchains
- D. To show the user interface of each tool

ANSWER: B

460. In which scenario would you use the "Develop a Cloud Foundry app" toolchain template?

- A. When you want to create a microservices app with image signing
- B. When you need to develop and deploy a Cloud Foundry app with preconfigured pipelines
- C. When you are configuring continuous delivery for Kubernetes apps
- D. When you want to set up a toolchain for monitoring and alerting

ANSWER: B

461. What is the role of a 'build trigger' in the Classic Delivery Pipeline?

- A. To start a pipeline run based on a specific event or schedule
- B. To generate build reports
- C. To deploy artifacts to production
- D. To manage user access to the pipeline

ANSWER: A

462. If a job fails in a stage, what is the default behavior regarding subsequent jobs in that stage?

- A. Subsequent jobs continue to run
- B. The pipeline restarts the failed job
- C. Subsequent jobs do not run
- D. The pipeline sends a notification

ANSWER: C

463. How can you securely handle sensitive data such as API keys in pipeline jobs?

- A. By embedding them in the script
- B. By using service API keys with restricted access
- C. By storing them in plaintext within the job
- D. By including them in the pipeline configuration file

ANSWER: B

464. How can you verify the host key fingerprint for a headless connection to Git over SSH using a script?

- A. By using 'ssh-keyscan' and comparing the fingerprint with an expected value
- B. By using 'ssh-keygen' and updating the 'known\_hosts' file directly
- C. By manually checking the host key on the server
- D. By setting up a firewall rule to verify the connection

ANSWER: A

465. In which scenario would you use the "Deploy a Kubernetes app" toolchain template?

- A. When you want to develop a microservices app with image signing
- B. When you need to deploy applications to Kubernetes with preconfigured pipelines
- C. When you are configuring continuous delivery for Cloud Foundry apps
- D. When you want to set up a toolchain for monitoring and alerting

ANSWER: B

466. What should you do if the host key fingerprint does not match the expected value?

- A. Proceed with the connection anyway
- B. Terminate the connection and alert the administrator
- C. Recreate the personal access token
- D. Update the SSH key on the server

ANSWER: B



467. Which step in creating a toolchain includes selecting integrations for continuous delivery?

- A. Reviewing toolchain settings
- B. Creating the API key
- C. Selecting tool integrations
- D. Configuring Delivery Pipeline

ANSWER: C

468. How can you access the configuration from a deprecated job type in the Classic Delivery Pipeline?

- A. Use the IBM Cloud Devtool or Delivery Pipeline API
- B. Contact IBM Cloud support
- C. Recreate the pipeline with a new job type
- D. Use an alternative job type within the UI

ANSWER: A

469. What happens if you remove a tool integration from a toolchain?

- A. The entire toolchain is deleted
- B. The toolchain continues to run, but without that tool's functionality
- C. The pipeline stops immediately
- D. The tool integration is only temporarily removed

ANSWER: B

470. How does the integration of Git Repos and Issue Tracking with toolchains benefit a development pipeline?

- A. It allows for direct deployment from Git Repos
- B. It provides automated build and test triggers based on issue tracking
- C. It facilitates fine-grained access controls and code review
- D. It replaces the need for a separate issue tracker

ANSWER: C

471. What should you do if you need to modify a toolchain configuration?

- A. Delete the toolchain and create a new one
- B. Edit the toolchain configuration from the dashboard
- C. Contact support to make changes
- D. Modify the configuration file directly on the server

ANSWER: B

472. What is the purpose of the "Create a GitHub repository" step in the toolchain creation process?

- A. To host all the pipeline jobs
- B. To manage access control for the toolchain
- C. To provide a centralized location for source code management
- D. To automate the deployment process

ANSWER: C

473. Which file specifies the build commands in AWS CodeBuild?

- A. config.json
- B. buildspec.yml
- C. build.yaml
- D. build.json

ANSWER: B

474. How does AWS CodeBuild ensure that build artifacts are securely managed?

- A. By encrypting artifacts during transmission only
- B. By encrypting artifacts with customer-specific keys managed by AWS KMS
- C. By requiring user-specific access controls only
- D. By storing artifacts in a secure, isolated environment

ANSWER: B

475. How does AWS CodeDeploy ensure the reliability of deployments?

- A. By deploying only in one region
- B. By allowing deployments to be stopped and rolled back if errors are detected
- C. By only deploying to new instances
- D. By creating backup copies of the source code

ANSWER:

476. What is the advantage of AWS CodePipeline's integration with third-party services?

- A. It allows for the use of custom plugins and services in the release process
- B. It eliminates the need for continuous integration
- C. It requires no integration with existing tools
- D. It only works with AWS-native services

ANSWER: A

477. How does IBM Cloud DevOps Insights help in the delivery process?

- A. By managing issue tracking
- B. By generating code from starter kits
- C. By analyzing data from DevOps toolchain to advise on risks and improvements
- D. By automating build processes

ANSWER: C

478. Which toolchain is specifically designed for canary testing in Kubernetes using Istio?

- A. Develop a Kubernetes app with Helm
- B. Progressive rollout in Kubernetes using iter8
- C. Develop a Code Engine app
- D. Canary testing in Kubernetes using Istio

ANSWER: D

479. What is an example of an API offering data monetization?

- A. PayPal API
- B. AccuWeather API
- C. Google Maps API
- D. Twitter API

ANSWER: B

480. How does a travel booking site utilize APIs for flight comparisons?

- A. By directly accessing airline databases
- B. By aggregating data from multiple sources through APIs
- C. By displaying static flight information
- D. By manually entering data from airlines

ANSWER: B

481. Which aspect of API functionality allows an application to plot travel routes or track moving items?

- A. Facebook Login API
- B. Google Maps API
- C. PayPal API
- D. Twitter API

ANSWER: B

482. Which of the following is a disadvantage of the Waterfall model?

- A. Difficulty in making changes during the testing phase
- B. Allows for easy adaptation to changing requirements
- C. Supports rapid development and deployment cycles
- D. Provides early visibility of project progress

ANSWER: A

483. Which DevOps benefit involves managing infrastructure and development processes efficiently at scale?

- A. Reliability
- B. Scale
- C. Security
- D. Speed

ANSWER: B

484. What does the 'Security' benefit of DevOps ensure?

- A. Automated compliance policies and fine-grained controls
- B. Minimal control over compliance and security
- C. Faster release cycles at the expense of security
- D. Reduced focus on security to accelerate development

ANSWER: A

485. How does DevOps differ from Agile?

- A. Agile emphasizes continuous integration, while DevOps focuses on manual processes
- B. DevOps integrates development and operations for a holistic approach, while Agile focuses on iterative development
- C. DevOps is solely focused on development, while Agile focuses on operations
- D. Agile is a tool for version control, while DevOps is a testing framework

ANSWER: B

486. Which of the following is NOT a practice or framework under Agile methodologies?

- A. Scrum
- B. Kanban
- C. Waterfall Model
- D. Scaled Agile Framework (SAFe)

ANSWER: C

487. What is the purpose of Jenkins in a DevOps pipeline?

- A. Continuous Integration and Continuous Delivery
- B. Version control
- C. Containerization
- D. Automated testing

ANSWER: A

488. How does Puppet differ from Ansible in terms of architecture?

- A. Puppet uses a client-server model, while Ansible is agent-based
- B. Puppet is only for Unix systems, while Ansible is cross-platform
- C. Puppet is agent-based, while Ansible uses a client-server model
- D. Puppet does not have a GUI, while Ansible does

ANSWER: C

489. Which tool provides high cardinality analytics and detailed visualizations for debugging and post-incident reviews?

- A. Chef
- B. SignalFx
- C. SVN
- D. Rational ClearCase

ANSWER: B

490. What is the role of the YAML file in Kubernetes?

- A. Describes the desired state of a container cluster
- B. Automates configuration management
- C. Defines the build process and dependencies
- D. Manages version control

ANSWER: A

491. Which of the following tools is known for providing detailed insights into user experience, including app crashes and performance metrics?

- A. Raygun
- B. Splunk Cloud
- C. Catchpoint
- D. JUnit

ANSWER: A

492. How does Gremlin support chaos engineering?

- A. By generating alerts and incident reports
- B. By providing real-user monitoring and error management
- C. By simulating chaos and stress tests on systems
- D. By automating code deployments and build processes

ANSWER: C

493. What unique feature does AWS CodeBuild offer compared to traditional build services?

- A. It scales continuously and processes multiple builds concurrently
- B. It manages containerized applications
- C. It automates code deployments
- D. It provides a unified interface for managing software development activities

ANSWER: A

494. Which AWS service enables security and governance by providing configuration history and change notifications?

- A. AWS OpsWorks
- B. AWS Config
- C. AWS X-Ray
- D. AWS CodeCommit

ANSWER: B

495. How does AWS X-Ray help developers?

- A. By analyzing and debugging distributed applications
- B. By managing build and test processes
- C. By automatically scaling web applications
- D. By providing real-time API usage tracking

ANSWER: A

496. What is the primary function of AWS CodeCommit?

- A. To host secure and scalable private Git repositories
- B. To manage configuration with Chef
- C. To monitor cloud resources and applications
- D. To provide platform-as-a-service for web apps

ANSWER: A

497. What is a key benefit of AWS CodeBuild?

- A. Eliminates the need for configuration management
- B. Provides automatic scaling and concurrent builds
- C. Handles real-time monitoring and logging
- D. Manages source code versioning

ANSWER: B

498. How does AWS CodePipeline enhance the release process?

- A. By providing a test automation framework
- B. By managing source code repositories
- C. By automating and integrating build, test, and deploy stages
- D. By configuring infrastructure as code

ANSWER: C

499. Which IBM Cloud service provides centralized management of secrets used in applications and services?

- A. IBM Cloud Activity Tracker
- B. IBM Key Protect
- C. IBM Cloud Secrets Manager
- D. IBM Cloud App Configuration

ANSWER: C



500. What is a key challenge associated with DevOps that involves maintaining security practices?

- A. Increased tool diversity
- B. Security in CI/CD processes
- C. Managing legacy systems
- D. Proper mindset across the company

ANSWER: B

501. What does IBM Garage™ focus on when working with clients?

- A. Reducing the number of cloud providers used
- B. Co-creating cloud-native applications using enterprise design thinking
- C. Only providing theoretical frameworks without practical implementation
- D. Exclusively migrating legacy applications to the cloud

ANSWER: B

502. What is a key aspect of the "Learning" phase in the IBM Cloud DevOps lifecycle?

- A. Monitoring system performance
- B. Deploying new features to production
- C. Coding and building new features
- D. Gathering feedback from end users and improving future releases

ANSWER: D

503. How does DevOps utilize cloud services to improve the development process?

- A. By enforcing fixed hardware and software allocations
- B. By allowing flexible resource allocation and scaling within budget
- C. By eliminating the need for version control
- D. By restricting communication between team members

ANSWER: B

504. Why is it important for IBM to assess the total cost of ownership (TCO) in application migration?

- A. To only consider the cost of new software licenses
- B. To compare costs of maintaining on-premises hardware with those of cloud services and migration expenses
- C. To avoid evaluating ongoing maintenance costs for legacy systems
- D. To exclude costs related to employee training and testing

ANSWER: B

505. What are some of the primary goals IBM aims to achieve through modernization efforts?

- A. Limit the use of modern development tools and methods
- B. Reduce operating costs, free up innovation capital, and enhance application security
- C. Increase technical debt and application complexity
- D. Focus only on migrating applications without optimizing them

ANSWER: B

506. Which workflow in the IBM Cloud DevOps lifecycle involves ensuring features are running smoothly and addressing any issues?

- A. Integration
- B. Development
- C. Planning
- D. Operations

ANSWER: D

507. Which phase in the DevOps lifecycle involves using tools like Ant, Maven, or Gradle?

- A. Continuous Development
- B. Continuous Integration
- C. Continuous Testing
- D. Continuous Deployment

ANSWER: B



508. Why is AWS considered beneficial for DevOps practices?

- A. It requires extensive setup and installation
- B. It offers limited scalability and programmability
- C. It provides fully managed services, automation, and scalability
- D. It lacks integration with third-party tools

ANSWER: C

509. What does the 'Programmable' feature of AWS allow you to do?

- A. Model and provision AWS resources using declarative templates and APIs
- B. Manually configure each AWS service
- C. Only use AWS services via graphical user interface
- D. Use AWS services only via the web interface

ANSWER: A

510. What is the primary function of AWS CodeCommit?

- A. To host secure and scalable private Git repositories
- B. To provide platform-as-a-service for web apps
- C. To monitor cloud resources and applications
- D. To manage configuration with Chef

ANSWER: A

511. What does the continuous development phase in DevOps involve?

- A. Planning and coding the product, using tools like Git and Slack
- B. Deploying and operating the application in production environments
- C. Monitoring application performance and collecting user feedback
- D. Coding, integrating, and testing the application

ANSWER: D

512. What does the DataPower Gateway support in terms of deployment?

- A. Both virtual and physical appliances
- B. Only physical appliances
- C. Only virtual appliances
- D. Only cloud-based environments

ANSWER: A

513. Why might an organization choose to 'Refactor' an application during the cloud migration process?

- A. To maintain the existing business model without any changes
- B. To improve the application's architecture and performance for anticipated traffic spikes
- C. To avoid any changes to the application's underlying technology
- D. To switch to a completely new product or service

ANSWER: B

514. In Kubernetes, which component is responsible for maintaining the desired state of the cluster by running various controllers?

- A. Scheduler
- B. API Server
- C. Controller Manager
- D. etcd

ANSWER: C

515. Which hybrid cloud scenario allows companies to handle peak loads by using public cloud resources temporarily?

- A. Safe harbor
- B. Backup and disaster recovery
- C. Burst scenario
- D. Application development with DevOps

ANSWER: C

516. Which server type in API Connect is responsible for managing API analytics?

- A. Management server
- B. Analytics server
- C. Gateway server
- D. Developer Portal server

ANSWER: B

517. What are some potential challenges when migrating applications from bare metal hardware compared to virtualized environments?

- A. Bare metal environments are easier to migrate due to less dependency.
- B. Virtualized environments require more complex migration strategies than bare metal.
- C. Bare metal environments often involve more complex dependencies and configurations, making migration more challenging.
- D. Virtualized environments always require complete redesigns.

ANSWER: C

518. How do services typically communicate with each other in a microservices architecture?

- A. Shared Database
- B. Direct method calls
- C. Lightweight protocols (e.g., REST, gRPC)
- D. Message Queues

ANSWER: C

519. What is the primary role of the Kubelet service on a Kubernetes node?

- A. Managing network rules and port forwarding
- B. Distributing workloads
- C. Storing configuration data
- D. Providing API access

ANSWER: A

520. What is the maximum recommended size for a Git repository before you might receive an email to reduce its size?

- A. 500 MB
- B. 1 GB
- C. 2 GB
- D. 5 GB

ANSWER: B

521. How does an API enhance security in data transfer?

- A. By storing sensitive data in plaintext
- B. By abstracting functionality and including authorization credentials
- C. By increasing server load
- D. By eliminating the need for encryption

ANSWER: B

522. Which principle of REST API design ensures that client and server applications are completely independent of each other?

- A. Uniform interface
- B. Statelessness
- C. Client-server decoupling
- D. Cacheability

ANSWER: C

523. What type of API combines multiple data or service APIs into a single call?

- A. Open API
- B. Composite API
- C. Internal API
- D. Partner API

ANSWER: B

524. Which protocol is simpler and uses minimal bandwidth compared to SOAP?

- A. JSON-RPC
- B. XML-RPC
- C. REST
- D. HTTP

ANSWER: B

525. What is the purpose of DevOps Insights in IBM Cloud?

- A. To create personal access tokens
- B. To verify SSH key fingerprints
- C. To aggregate and analyze code, test, build, and deployment data
- D. To update your GitHub profile

ANSWER: C

526. Which of the following is a common use case for an API?

- A. Creating hardware drivers
- B. Accessing external databases directly
- C. Allowing users to log in with existing social media profiles
- D. Developing internal software tools

ANSWER: C

527. Which of the following principles is NOT part of REST design constraints?

- A. Uniform Interface
- B. Statelessness
- C. Caching
- D. Server-side Sessions

ANSWER: D

528. What is the purpose of the HTTP POST method in RESTful APIs?

- A. Retrieve data
- B. Create a new resource
- C. Update an existing resource
- D. Delete a resource

ANSWER: B

529. Which tool combines synthetic monitoring, real-user monitoring, and network monitoring for detecting errors?

- A. Catchpoint
- B. Splunk
- C. Raygun
- D. Gremlin

ANSWER: A

530. What does AWS Systems Manager help with?

- A. Automating code deployments
- B. Collecting software inventory, applying patches, and configuring OS
- C. Managing Git repositories
- D. Building and testing code

ANSWER: B

531. Which AWS service records API calls for your account and delivers log files?

- A. AWS X-Ray
- B. AWS Config
- C. AWS CloudTrail
- D. AWS CodePipeline

ANSWER: C

532. What is the main purpose of AWS Elastic Beanstalk?

- A. Hosting private Git repositories
- B. Managing infrastructure for web applications
- C. Deploying and scaling web applications
- D. Automating code builds

ANSWER: C

533. When creating a toolchain from an app, what is the first step to set up continuous delivery?

- A. Configure the Delivery Pipeline
- B. Review the toolchain diagram
- C. Select the source repository provider
- D. Click Deploy my app

ANSWER: D

534. In the Classic Delivery Pipeline, what is typically the output of a build stage?

- A. Deployment logs
- B. Source code
- C. Build artifacts
- D. Test results

ANSWER: C

535. Which file is used to define the configuration for the Classic Delivery Pipeline?

- A. 'pipeline.yml'
- B. 'config.xml'
- C. 'Dockerfile'
- D. 'Jenkinsfile'

ANSWER: A

536. What does the 'Deploy' stage in a Classic Delivery Pipeline usually do?

- A. It compiles the code
- B. It tests the application
- C. It uploads the application to a production environment
- D. It creates a backup of the application

ANSWER: C

537. What type of tool integration allows for notifications about deployment status to be sent to a Slack channel?

- A. Delivery Pipeline
- B. Sauce Labs
- C. PagerDuty
- D. Slack

ANSWER: D

538. Which Tester type launches a shell command to run automated tests?

- A. Vulnerability Advisor
- B. Sauce Labs
- C. Simple
- D. Custom Docker image

ANSWER: C

539. How can you avoid route conflicts when deploying to multiple targets using Cloud Foundry?

- A. Use a different manifest file for each target
- B. Specify the route by using cf push command arguments
- C. Deploy all targets in parallel
- D. Use the same route for all targets

ANSWER: B

540. What type of environment property is used for multi-line values that can be base64 encoded?

- A. Text
- B. Text Area
- C. Secure
- D. Properties File

ANSWER: B

541. DevOps is an extension of \_\_\_\_\_

- A. QA
- B. Waterfall
- C. Agile
- D. None of the above

ANSWER: C

542. Which of the following is NOT one of the 6 Rs of Cloud Migration?

- A. Rehost
- B. Retire
- C. Repurchase
- D. Reengineer

ANSWER: D

543. Which of the following is NOT a responsibility of the cloud provider in a serverless architecture?

- A. Load balancing
- B. Resource scaling
- C. Security of the infrastructure
- D. Application development

ANSWER: D



Directorate General of Training