

Q1) Your team has currently created a docker image using the docker build command. They need to publish this to an Azure container registry. The IT admin has already created the container registry in Azure. Which of the following are steps that need to be followed to push the image onto the Azure container registry? Choose 3 answers from the options given below

- ☐ Duplicate the image
- ☒ Push the image to the registry

Explanation:-1. Out of the steps given in the Microsoft documentation to push an image to the Azure container registry the following steps have been given

First, log into the registry

- 2. Next, create an alias for the image
- 3. And then finally push the image to the registry

- ☒ Create an alias for the image

Explanation:-1. Out of the steps given in the Microsoft documentation to push an image to the Azure container registry the following steps have been given

First, log into the registry

- 2. Next, create an alias for the image
- 3. And then finally push the image to the registry

- ☐ Create a container

- ☒ Log into Azure container registry

Explanation:-1. Out of the steps given in the Microsoft documentation to push an image to the Azure container registry the following steps have been given

First, log into the registry

- 2. Next, create an alias for the image
- 3. And then finally push the image to the registry

Q2) A team has an Azure Kubernetes cluster defined. The cluster is Role Based Access Control enabled. The team needs to use Azure Container instances as a hosted environment to run the containers in Azure Kubernetes. Which of the following actions must you perform to accomplish this?

- ☒ Run the az role assignment create command

Explanation:-There is a blog article detailing the steps. Either ensure that you have a service principal or RBAC to ensure Azure container instances can create the instances in Azure Kubernetes.

Then create a YAML file for the deployment of the connector for Azure container instances

Then issue the kubectl command to execute the YAML file

- ☒ Run the kubectl command

Explanation:-There is a blog article detailing the steps. Either ensure that you have a service principal or RBAC to ensure Azure container instances can create the instances in Azure Kubernetes.

Then create a YAML file for the deployment of the connector for Azure container instances

Then issue the kubectl command to execute the YAML file

- ☐ Run helm init
- ☐ Run az aks install-connector
- ☒ Create a YAML file

Explanation:-There is a blog article detailing the steps. Either ensure that you have a service principal or RBAC to ensure Azure container instances can create the instances in Azure Kubernetes.

Then create a YAML file for the deployment of the connector for Azure container instances

Then issue the kubectl command to execute the YAML file

Q3)

A company is planning on deploying an application to Azure.

The web app will be deployed using the Azure Web App service. Azure DevOps services will be used to manage the CI/CD process for the application.

The company wants to implement blue-green deployments for the web application.

Which of the following is the ideal service to use for blue-green deployments?

- ☐ Azure Application Gateway
- ☐ Azure Load Balancer
- ☒ Azure Traffic Manager

Explanation:-The Azure Traffic Manager is the ideal service to use for Blue green deployments. A blog article is also present on the same.

- ☐ Azure Virtual Gateway

Q4) A company is planning on deploying an application to Azure. The web app will be deployed using the Azure Web App service. Azure DevOps services will be used to manage the CI/CD process for the application. The company wants to implement blue green deployments for the web application.

Which feature of the service would you use to implement Blue green deployments?

- ☐ Session Persistence
- ☐ Routing Rules
- ☒ Routing Methods

Explanation:-Since we are going to be implementing Azure Traffic Manager for routing traffic , we will use the routing methods , specifically the weighted routing methods.

- ☐ Session Affinity

Q5) Which of the following are principles of Continuous Planning?

- ☐ Harness collaboration. Act as a quality gate.
- ☒ Value simplicity. Perform iterative and incremental development.

Explanation:-Value simplicity and iterative and incremental development are two of the principles of Continuous Planning.

- ☐ Ensure that dev efforts are reusable as much as possible. Automate everything.

Q6)

Objective & Key Results (OKRs) provide 5 key benefits, 3 of which are identified in the following list.

Which benefit helps both contributors and managers link their day-to-day activities to the organization's company-wide vision?

- ☐ Commitment
- ☒ Alignment

Explanation:-Alignment helps contributors and managers link their day-to-day activities to the organization's company-wide vision.

- ☐ Focus

Q7) Why are the projects developed with the Agile development methodology more successful than those developed with the Waterfall methodology?

- ☐ Because estimation efforts in Waterfall projects are typically more accurate than those in Agile projects.
- ☐ Because the scope of Waterfall projects remains flexible, while the scope of Agile projects is typically fixed and more realistic.
- ☒ Because small batch releases, which are characteristic of Agile projects, increase the opportunities to gain knowledge.

Explanation:-Projects developed with the Agile development methodology are more successful because small batch releases allow teams to gain more knowledge.

Q8)

Two goals of Continuous Integration are to reduce integration issues and enable parallel development.

Which additional goal can facilitate reduction of integration issues and enablement of parallel development?

- ☐ Establishing boundaries
- ☒ Automating everything

Explanation:-Automating everything facilitates the goals of reducing integration issues and enabling parallel development.

- ☐ Reducing complexity

Q9) How can you ensure that pull requests for a given area of the repository are not merged unless certain users or teams have approved?

- ☐ Add a table mapping directory paths to required users in SECURITY.md.
- ☒ Use a CODEOWNERS file and enable required reviews.

Explanation:-A CODEOWNERS file enables you to assign users or teams as required reviewers using the same syntax as .gitignore files.

- ☐ Clearly explain the pull request policy in CONTRIBUTING.md.

Q10)

You have been requested to review a pull request. As you read through it, you notice several minor coding errors and typos.

How should you handle the review?

- ☐ Reject the pull request. We can't risk any bugs accidentally being merged into an important branch.
- ☐ Leave single comments for each issue you come across, but do not change the code. For typos, include the correct spelling of the word as a reference. Approve the pull request if you trust the author to implement your suggestions.
- ☒ Start a review and fix obvious typos inline. Add comments in places that require further discussion or offer educational value. Complete the review with changes requested.

Explanation:-Contributors always appreciate when reviewers show an interest in getting their code merged.

Q11) Which of the following statements about merges is false?

- ☐ Files added on the compare branch can be merged into the base branch if they don't yet exist there.
- ☐ Edits to lines of code on the compare branch can be merged if those same lines haven't changed on the base branch since the compare branch was last pulled.
- ☒ When a merge completes successfully, it ensures that your changes didn't break the build.

Explanation:-This statement is incorrect. It's possible that the combination of your successfully merged changes, when combined with recent base branch changes, could produce a codebase that doesn't build. It's a best practice to pull and test immediately before merging.

Q12) Why are merge conflicts bad?

- ☐ Merge conflicts are embarrassing for the offending developer because everyone will think they were careless.
- ☒ This is a trick question. Merge conflicts aren't bad; they're an inevitable part of distributed version control.

Explanation:-As projects scale, the probability of multiple people changing the same files grows. Merge conflicts are raised to avoid code being unintentionally overwritten.

- ☐ The base branch becomes unstable until the conflicts are resolved. As a result, associated builds probably won't succeed.

Q13) What is the best way to avoid most complex merge conflicts?

- ☐ Open a pull request as soon as you create your branch. This transparency will help everyone else understand your proposed changes so they don't merge any competing code before you do.
- ☐ Only pull updates for the base branch onto your branch immediately before creating a pull request.
- ☒ Regularly pull updates your branch.

Explanation:-You may need to resolve conflicts each time, but they should be smaller and more straightforward.

Q14) Which of the following is a key aspect to maintaining quality while increasing speed to market?

- ☐ Fewer deployment cycles
- ☐ Additional testing cycles
- ☒ Shorter (and less complex) deployment cycles

Explanation:-Shorter and less complex deployment cycles maintain quality while increasing speed to market.

Q15) What are the primary benefits that DevOps provides?

- ☐ Processes to facilitate code deployment and minimize coding errors.
- ☒ The ability to deliver more features to market faster and to increase agility when faced with change.

Explanation:-These are primary benefits that DevOps provides.

- ☐ A framework for creating multidisciplinary teams and a means of measuring coders' effectiveness.

Q16) Why is culture considered an essential foundation for DevOps?

- ☒ Because DevOps needs a growth and continuous learning mindset to succeed, which requires a strong cultural foundation supported by leadership.

Explanation:-This answer states why culture is considered an essential foundation for DevOps.

- ☐ Because the emergence of social media has enhanced communication flow, which was previously understood to be the sole essential foundation for DevOps.
- ☐ Because studies have shown, it's impossible to improve software delivery performance in the absence of a bureaucratic organizational culture.

Q17) Which of the following services would you use to identify who deleted a virtual machine?

- ☐ Network Watcher
- ☒ Activity Log

Explanation:-Azure Activity Log records all events that have been performed on your resources on the Azure platform, including deletion of resources.

- ☐ Service Health
- ☐ Application Insights

Q18) Which of the following cannot be used to automate infrastructure deployment?

- ☒ Application Insights

Explanation:-Application Insights helps you monitor and analyze your application, it does not offer automation.

- ☐ Azure Resource Manager templates
- ☐ Azure CLI
- ☐ Azure PowerShell

Q19) Which of the following is not a common strategy for configuring virtual machines?

- ☐ Post-deployment scripting
- ☒ Auto-boot ISO images

Explanation:-Mounting ISO images with custom OS installations is not a common strategy for configuring VM.

- ☐ Custom images

Q20) Correct or Incorrect: Azure Automation could be used to automate the start/stop of virtual machines during your off-hours.

- ☐ Incorrect
- ☒ Correct

Q21) Which of the following would be an example of a stress test?

- ☒ Running an increasing number of API calls against your service.

Explanation:-This would test the load of the system and is an example of a stress test.

- ☐ Testing every public method in your code for accuracy.
- ☐ Scanning for SQL injection vulnerabilities.
- ☐ Submitting an API call for each of the published APIs that your service exposes to validate an appropriate response.

Q22) If you had a new feature that you wanted to gain insight into whether or not it improves the user experience, which acceptance testing strategy would be the most appropriate?

- ☐ Blue/Green deployment
- ☐ Canary release
- ☒ A/B test

Explanation:-This would allow you to test one experience with some users, and different experience with others. You could then analyze the results to determine the impact of the new user experience.

Q23) What data does Azure Monitor collect?

- ☐ Backups of database transaction logs
- ☐ Azure billing details
- ☒ Data from a variety of sources, such as the application event log, the operating system (Windows and Linux), Azure resources, and custom data sources

Q24) What two fundamental types of data does Azure Monitor collect?

- ☐ Email notifications and errors
- ☐ Username and password
- ☒ Metrics and logs

Explanation:-Azure Monitor collects two types of data: metrics and logs. Metrics are numerical values that describe some aspect of a system at a particular time. Logs contain different kinds of data, such as event information, organized into records.

Q25) You want to make sure that admins know as soon as a web app becomes overloaded. Which feature of Application Insights should you use?

- ☐ Usage Analysis
- ☐ Live metrics streams
- ☒ Alerts

Explanation:-You can create an alert that triggers when a condition is satisfied - for example, when the web app is overloaded. When the alert triggers, you can configure it to send an email, for example, to inform admins.

Q26)

You have a Linux-based web app that runs in the Azure App Service.

You want to display basic performance data in an Application Insights dashboard.

Which method should you use to instrument your app?

- ☐ Runtime instrumentation
- ☐ Automatic client-side telemetry
- ☒ Build-time instrumentation

Explanation:-Because your app is based on Linux, you need to use build-time instrumentation. Runtime instrumentation and automatic client-side telemetry are available only for Windows apps.

Q27) Which statement describing the product definition is false?

- ☒ Product management is made to serve external customers.

Explanation:-This isn't a true statement regarding product definition.

- ☐ A product delivers capabilities that customers value.
- ☐ A product can be a repeatable service or platform.

Q28) What is the main difference between a product and a project?

- ☐ A product has a date when it needs to be delivered.
- ☐ A product has a clear definition of what needs to be delivered.
- ☒ Only a product evolves over time.

Explanation:-Unlike projects, products evolve over time.

Q29) What is the best way to report a bug to a GitHub project?

- ☐ Send an email to a project owner.
- ☐ I don't bother reporting software bugs because there's no transparency and they never get fixed anyway.
- ☒ Search for the bug in the project's existing issues and create a new one if it hasn't been reported yet.

Explanation:-A project's issues are visible to anyone who has access to the project, so you may find a resolution is already planned or available. Otherwise, you can create and track the issue yourself.

Q30)

Suppose you have created a bug fix on a new branch and want it to become part of the next production build generated from the master branch.

What should you do next?

- ☐ On second thought, maybe I won't share this fix. I'll just put it in my own private version of the source code.
- ☒ Create a pull request to merge your new branch into the master branch.

Explanation:-Pull requests are the correct way to communicate that commits are ready for review and ultimate inclusion on the master branch.

- ☐ Copy your branch changes and commit them directly to the master branch.

Q31)

It is recommended that you create commits on a branch separate from master, and there are plenty of good reasons why.

What is not a good reason?

- ☐ The master branch is often treated differently by a project, and committing to it can create side effects, such as builds and deployments.
- ☐ The master branch is intended for the highest-quality code that has passed rigorous review for inclusion.
- ☒ GitHub doesn't allow you to commit directly to the master branch.

Explanation:-You can commit to the master branch unless it has been specifically locked by a branch owner. However, it is recommended that you only merge in commits via pull request.

Q32) Which of the following is not an important consideration for migrating a source repository to GitHub?

- ☐ Do you want to keep all of the version control history?
- ☐ Is there project data that lives outside of the history you need to preserve, such as issues, discussions, or pull requests?
- ☒ Does GitHub support the programming language your project uses?

Explanation:-GitHub is agnostic when it comes to the purpose of source files it tracks. While there may be special treatment for popular file types and programming languages, you can still manage source files for any kind of project using the same core features.

Q33) Which of the following is not a valid way to migrate a project to GitHub?

- ☐ Use the GitHub Importer to import your project.
- ☐ Use the git client or other git-friendly tool to upload your project.
- ☒ Email a password protected zip of your project to GitHub support along with instructions for the repository's creation. Be sure to include the zip password in the same email.

Q34) What kind of files are best stored in GitHub?

- ☒ Text files, like source code.

Explanation:-GitHub is ideal for the version control of text files.

- ☐ Binary project files, like spreadsheets and presentations.
- ☐ Large binary files, like videos.

Q35) Why is a .gitignore file important to your repository?

- ☐ It's just a token file required by GitHub to make sure you're following the migration instructions closely. If you ignore it, your repository migration will fail.
- ☐ It defines which users are not allowed to participate in your repository discussions and pull requests.
- ☒ It helps you enforce policy around which files are not to be tracked by version control.

Explanation:-It specifically defines which files and directories should be excluded from version control. This is useful for keeping sensitive data, build output, and other files out of your repository.

Q36) Which of the following is not a valid way to upload new project files to GitHub?

- ☐ Use the browser interface at github.com.
- ☐ Use the git client or other Git-friendly tool.
- ☒ Email a password protected zip of your project to GitHub support along with instructions for the repository's creation. Be sure to include the zip password in the same email.

Q37) A company is planning on using Azure Pipelines to deploy their ASP.Net and Node.js applications to a set of web servers. These web servers are nothing but virtual machines in Azure which have IIS installed. The company has the following requirements:

- Minimize the effort in deploying the application by giving the ability to deploy to a set of servers at once
- Provide an option for a gradual deployment to the servers

Which of the following would you use to fulfil the requirement?

“Provide an option for a gradual deployment to the servers”

- ☐ Define an Artifact
- ☐ Make use of gates
- ☐ Use the Azure Traffic Manager
- ☒ Modify the deployment group job

Explanation:-You can perform deployments in parallel by configuring the deployment group job as shown in the Microsoft documentation below

Q38) What is not a good reason to create a pull request?

- ☐ You would like to receive feedback on prospective changes before merging your feature branch into master.
- ☐ You want to merge your bug fix branch into master, but do not have permission.
- ☒ Your branch cannot be merged into master due to upstream changes made since you created it. Creating a pull request will let the other contributor know they need to pull their changes out so you can put yours in.

Explanation:-This is not how pull requests work. Also, the etiquette is for you to be sure your branch can be cleanly merged into the base before creating a pull request.

Q39) Why is a full stack team needed to support a product?

- ☐ To develop specialized skillsets.
- ☒ To be able to support the product end to end.

Explanation:-This is why a full stack team is needed to support the product.

- So that multiple development teams can support a product.

Q40) When a downtime or other incident occurs, should you immediately terminate the people involved?

- Yes, the person or people who made the mistake should always take responsibility for their actions and pay the consequences
- ✔ No, except under certain rare and extraordinary circumstances

Explanation:-Feedback loops like blameless postmortems are crucial to continuous improvement. If an organization learns from an incident instead of firing the people involved (the people who may understand best what happened), it can work directly on the reliability of its services, systems and products.

Q41) Which of these things is not a characteristic of toil (in the SRE context)?

- The work is largely manual in nature and not automated
- The work provides no lasting value
- ✔ The work is tracked in a ticket system

Explanation:-How the work is tracked is not a characteristic of toil. While toil is often tracked this way, ticket systems could be used to track other, more productive kinds of work.

- The work is repetitive

Q42) What is the Azure Instance Metadata Service?

- The service used for service principal objects
- A service that contains detailed data for provisioned Azure resources
- ✔ A REST API endpoint that's accessible from an IaaS VM

Explanation:-Azure Instance Metadata Service is a REST API endpoint. It's accessible to all IaaS VMs that are created via Azure Resource Manager. It can be accessed only from within the VM.

- The framework that's used to authenticate to an IaaS (infrastructure as a service) VM

Q43) Why can't a custom application that's hosted on-premises use managed identities?

- Managed identities are supported only in Azure AD.
- ✔ Managed identities can be used only with Azure resources.

Explanation:-Managed identities can be used only in Azure resources or through Azure AD integration.

- Custom applications don't support managed identities.
- Managed identity is a feature of Azure virtual machines.

Q44)

Cloud security is a shared responsibility between you and your cloud provider.

Which category of cloud services requires the greatest security effort on your part?

- Software as a service (SaaS)
- Platform as a service (PaaS)
- ✔ Infrastructure as a service (IaaS)

Explanation:-At this level, the cloud provider provides physical security to compute resources. However, it's your responsibility to patch and secure your operating systems and software, as well as configure your network to be secure.

Q45) Which of these options helps you most easily disable an account when an employee leaves your company?

- Monitor sign-on attempts
- ✔ Use single sign-on (SSO)

Explanation:-SSO centralizes user identity, so you can disable an inactive account in a single step.

- Enforce multi-factor authentication (MFA)

Q46) Which of these approaches is the strongest way to protect sensitive customer data?

- Encrypt data as it sits in your database
- Encrypt data as it travels over the network
- ✔ Encrypt data both as it sits in your database and as it travels over the network

Explanation:-Encrypting your data at all times, both as it sits in your database and as it travels over the network, minimizes the opportunity for an attacker to access your data in plain text.

Q47)

There has been an attack on your public-facing website, and the application's resources have been overwhelmed and exhausted, and are now unavailable to users.

What service should you use to prevent this type of attack?

- Application Gateway
- Network Security Group
- Azure Firewall
- ✔ DDoS protection

Explanation:-DDoS protection is the correct answer, because it will help prevent DDoS attacks.

Q48)

You want to store certificates in Azure to centrally manage them for your services.

Which Azure service should you use?

- ☐ Azure AD
- ☒ Azure Key Vault

Explanation:-Azure Key Vault is the correct answer, because it is a centralized cloud service for storing application secrets, referred to as a secret store.

- ☐ AIP
- ☐ Azure ATP

Q49) In which log would you find information about the multi-factor authentication method that is being used?

- ☐ Risky sign-ins log
- ☒ Sign-in log files

Explanation:-The sign-in log file contains information about multi-factor authentication.

- ☐ Audit log files

Q50) In which log would you find information about identity protection?

- ☐ Risky sign-in log
- ☐ Sign-in log files
- ☒ Audit log

Explanation:-You can use the services column to obtain information about identity protection.

Q51) What are the two types of queries you can write in Azure Monitor?

- ☒ Table-based and search-based

Explanation:-You can run both table-based and search-based queries in Azure Monitor.

- ☐ Table-based and Kusto
- ☐ Kusto and search-based

Q52) What's an SRE's relationship to toil?

- ☒ SREs work to eliminate toil wherever and whenever it is appropriate
- ☐ SREs attempt to manage toil the best they can.
- ☐ SREs work to eliminate toil as their first priority.

Q53) What is a suggested breakdown of work for an SRE?

- ☒ 50% reactive ops work/50% project work
- ☐ 10% reactive ops work/90% project work

Explanation:-This is the usual balance SREs strive for (50% is seen as an upper bound on operational load--smaller would be better).

- ☐ 80% reactive ops work/20% project work

Q54) What's the composition of an alert rule?

- ☒ Resource, condition, actions, alert details

Explanation:-These elements make up an alert rule.

- ☐ Metrics, logs, application, operating system
- ☐ Resource, condition, log, alert type

Q55) Which Azure service allows you to create, assign, and, manage policies to enforce different rules and effects over your resources and stay compliant with your corporate standards and service-level agreements (SLAs)?

- ☐ Role-based Access Control
- ☐ Azure Security Center
- ☐ Azure Blueprints
- ☒ Azure Policy

Explanation:-Azure Policy is a service in Azure that you use to create, assign, and, manage policies. These policies enforce different rules and effects over your resources, so those resources stay compliant with your corporate standards and service-level agreements (SLAs).

Q56) Which of the following services provides up-to-date status information about the health of Azure services?

- ☐ Compliance Manager
- ☐ Azure Monitor
- ☐ Service Trust Portal
- ☒ Azure Service Health

Explanation:-Azure Service Health is the correct answer, because it provides you with a global view of the health of Azure services. With Azure Status, a component of Azure Service Health, you can get up-to-the-minute information on service availability.

Q57) Which of the following is NOT a state of a smart group alert?

- ☐ Closed
- ☐ Acknowledged
- ☐ New
- ☒ Failed

Explanation:-Failed is not a smart group alert state.

Q58) What types of Web apps can save logs to Azure Blob storage?

- ☐ ASP.NET Core apps on Linux.
- ☐ Node.js apps on Linux.
- ☒ Node.js apps on Windows.

Explanation:-Any app that runs on Windows can save logs to Blob storage.

Q59) Why is file system logging automatically turned off after 12 hours?

- ☐ To enable Web apps to reinstantiate on different server instances, with different file system storage.
- ☐ So that storage space can be reused.
- ☒ To optimize app performance.

Explanation:-Excessive logging can potentially cause app performance to degrade.
