

AZ-104

1.

You are configuring project metrics for dashboards in Azure DevOps.

You need to configure a chart widget that measures the elapsed time to complete work items once they become active.

Which of the following is the widget you should use?

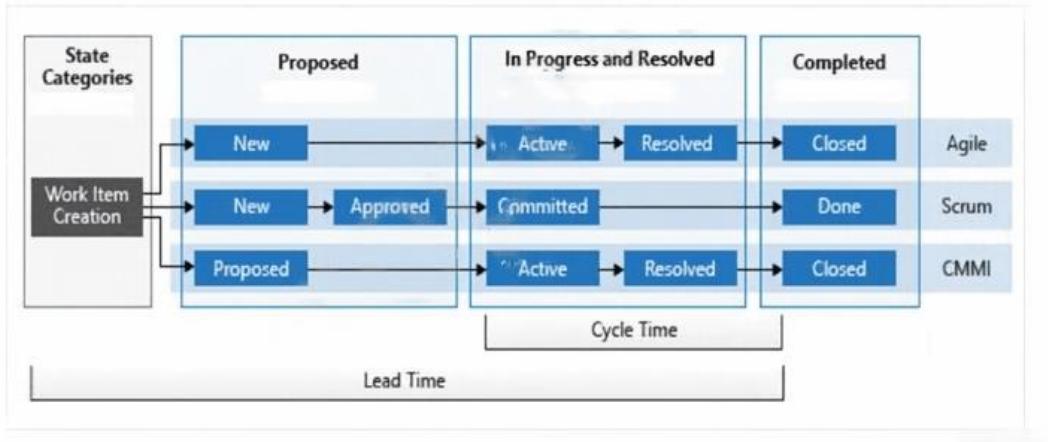
- A. Cumulative Flow Diagram
- B. Burnup
- C. Cycle time
- D. Burndown

Cycle time measures the time it takes for your team to complete work items once they begin actively working on them.

Reference:

<https://docs.microsoft.com/en-us/azure/devops/report/dashboards/cycle-time-and-lead-time?view=vsts>

The following diagram illustrates how lead time differs from cycle time. Lead time is calculated from work item creation to entering a completed state. Cycle time is calculated from first entering an In Progress or Resolved state category to entering a Completed state category. To understand how workflow states map to state categories, see [How workflow states and state categories are used in Backlogs and Boards](#).



2.

You need to consider the underlined segment to establish whether it is accurate.

The Burnup widget measures the elapsed time from creation of work items to their completion.

Select “No adjustment required” if the underlined segment is accurate. If the underlined segment is inaccurate, select the accurate option.

- A. No adjustment required.
- B. Lead time
- C. Test results trend
- D. Burndown

3.

You are making use of Azure DevOps manage build pipelines, and also deploy pipelines.

The development team is quite large, and is regularly added to.

You have been informed that the management of users and licenses must be automated when it can be.

Which of the following is a task that can't be automated?

- A. Group membership changes
- B. License assignment
- C. Assigning entitlements
- D. License procurement

4.

You have been tasked with strengthening the security of your team's development process.

You need to suggest a security tool type for the Continuous Integration (CI) phase of the development process.

Which of the following is the option you would suggest?

- A. Penetration testing

- B. Static code analysis
- C. Threat modeling
- D. Dynamic code analysis

 Note

Azure Pipelines is one among a collection of Azure DevOps Services, all built on the same secure infrastructure in Azure. To understand the main concepts around security for all of Azure DevOps Services, see [Azure DevOps Data Protection Overview](#) and [Azure DevOps Security and Identity](#).

Traditionally, organizations implemented security through draconian lock-downs. Code, pipelines, and production environments had severe restrictions on access and use. In small organizations with a few users and projects, this stance was relatively easy to manage. However, that's not the case in larger organizations. Where many users have contributor access to code, one must "assume breach". Assuming breach means behaving as if an adversary has contributor access to some (if not all) of the repositories.

5.

Your company is currently making use of Team Foundation Server 2013 (TFS 2013), but intend to migrate to Azure DevOps.

You have been tasked with supplying a migration approach that allows for the preservation of Team Foundation Version Control changesets dates, as well as the changes dates of work items revisions. The approach should also allow for the migration of all TFS artifacts, while keeping migration effort to a minimum.

You have suggested upgrading TFS to the most recent RTW release.

Which of the following should also be suggested?

- A. Installing the TFS kava SDK
- B. Using the TFS Database Import Service to perform the upgrade.
- C. Upgrading PowerShell Core to the latest version.
- D. Using the TFS Integration Platform to perform the upgrade.

In Phase 3 of your migration project, you will work on upgrading your Team Foundation Server to one of the supported versions for the Database Import Service in Azure Devops Services.

6.

DRAG DROP -

You have an on-premises Bitbucket Server with a firewall configured to block inbound Internet traffic. The server is used for Git-based source control.

You intend to manage the build and release processes using Azure DevOps. This plan requires you to integrate Azure DevOps and Bitbucket.

Which of the following will allow for this integration? Answer by dragging the correct options from the list to the answer area.

Select and Place:

Options	Answer	Options	Answer
---------	--------	---------	--------

A self-hosted agent
A Microsoft-hosted agent
An External Git service connection
Service hooks

A self-hosted agent
A Microsoft-hosted agent
An External Git service connection
Service hooks

Feature	Azure Pipelines	TFS 2017.2 and higher	TFS 2017 RTM	TFS 2015.4	TFS 2015 RTM
Branch	Yes	Yes	Yes	Yes	Yes
Clean	Yes	Yes	Yes	Yes	Yes
Tag or label sources	Project; Classic only	Team project	Team project	Team project	No
Report build status	Yes	Yes	Yes	No	No
Checkout submodules	Yes	Yes	Yes	Yes	Yes

7.

You are currently developing a project for a client that will be managing work items via Azure DevOps. You want to make sure that the work item process you use for the client allows for requirements, change requests, risks, and reviews to be tracked.

Which of the following is the option you would choose?

- A. Basic
- B. Agile
- C. Scrum
- D. CMMI

Choose CMMI when your team follows more formal project methods that require a framework for process improvement and an auditable record of decisions. With this process, you can track requirements, change requests, risks, and reviews.

Incorrect Answers:

- A. Choose Basic when your team wants the simplest model that uses Issues, Tasks, and Epics to track work.
- B. This process works great if you want to track user stories and (optionally) bugs on the Kanban board, or track bugs and tasks on the taskboard.
- C. This process works great if you want to track product backlog items (PBIs) and bugs on the Kanban board, or break PBIs and bugs down into tasks on the taskboard.

Reference:

<https://docs.microsoft.com/en-us/azure/devops/boards/work-items/guidance/choose-process?view=azure-devops>

8.

Note: The question is included in a number of questions that depicts the identical set-up. However, every question has a distinctive result. Establish if the solution satisfies the requirements.

You run the Register-AzureRmAutomationDscNode command in your company's environment.

You need to make sure that your company's test servers remain correctly configured, regardless of configuration drift.

Solution: You set the -ConfigurationMode parameter to ApplyOnly.

Does the solution meet the goal?

- A. Yes
- B. No

Register-AzureRmAutomationDscNode

Module: AzureRM.Automation

Registers an Azure virtual machine as a DSC node for an Automation account.

ⓘ Important

Because Az PowerShell modules now have all the capabilities of AzureRM PowerShell modules and more, we'll retire AzureRM PowerShell modules on 29 February 2024.

To avoid service interruptions, [update your scripts](#) that use AzureRM PowerShell modules to use Az PowerShell modules by 29 February 2024. To automatically update your scripts, follow the [quickstart guide](#).

9.

Note: The question is included in a number of questions that depicts the identical set-up. However, every question has a distinctive result. Establish if the solution satisfies the requirements.

You run the Register-AzureRmAutomationDscNode command in your company's environment.

You need to make sure that your company's test servers remain correctly configured, regardless of configuration drift.

Solution: You set the -ConfigurationMode parameter to ApplyAndMonitor.

Does the solution meet the goal?

- A. Yes
- B. No **Most Voted**

10.

Note: The question is included in a number of questions that depicts the identical set-up. However, every question has a distinctive result. Establish if the solution satisfies the requirements.

You run the Register-AzureRmAutomationDscNode command in your company's environment.

You need to make sure that your company's test servers remain correctly configured, regardless of configuration drift.

Solution: You set the -ConfigurationMode parameter to ApplyAndAutocorrect.

Does the solution meet the goal?

- A. Yes
- B. No

11.

You need to consider the underlined segment to establish whether it is accurate.

To compile an Internet Information Services (IIS) web application that runs docker, you should use a Default build agent pool.

Select "No adjustment required" if the underlined segment is accurate. If the underlined segment is inaccurate, select the accurate option.

- A. No adjustment required.
- B. Hosted Windows Container **Most Voted**
- C. Hosted
- D. Hosted macOS

Hosted pool (Azure Pipelines only): The Hosted pool is the built-in pool that is a collection of Microsoft-hosted agents.

Reference:

<https://docs.microsoft.com/en-us/azure/devops/pipelines/agents/v2-osx>

To build and deploy Xcode apps or Xamarin.iOS projects, you'll need at least one macOS agent. This agent can also build and deploy Java and Android apps.

Before you begin:

- If your pipelines are in [Azure Pipelines](#) and a Microsoft-hosted agent meets your needs, you can skip setting up a self-hosted macOS agent.
- Otherwise, you've come to the right place to set up an agent on macOS. Continue to the next section.

Learn about agents

If you already know what an agent is and how it works, feel free to jump right in to the following sections. But if you'd like some more background about what they do and how they work, see [Azure Pipelines agents](#).

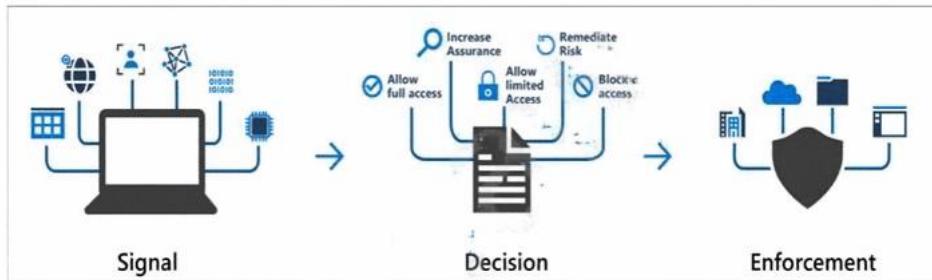
12.

Your company has an Azure DevOps environment that can only be accessed by Azure Active Directory users. You are instructed to make sure that the Azure DevOps environment can only be accessed from devices connected to the company's on-premises network.

Which of the following actions should you take?

- A. Assign the devices to a security group.
- B. Create a GPO.
- C. Configure Security in Project Settings from Azure DevOps.
- D. Configure conditional access in Azure Active Directory. **Most Voted**

Conditional Access is the tool used by Azure Active Directory to bring signals together, to make decisions, and enforce organizational policies. Conditional Access is at the heart of the new identity driven control plane.



Conditional Access policies at their simplest are if-then statements, if a user wants to access a resource, then they must complete an action. Example: A payroll manager wants to access the payroll application and is required to perform multi-factor authentication to access it.

Administrators are faced with two primary goals:

13.

You are making use of Azure DevOps to configure Azure Pipelines for project, named PROJ-01. You are preparing to use a version control system that allows for source code to be stored on a managed Windows server located on the company network.

Which of the following is the version control system you should use?

- A. Github Enterprise **Most Voted**
- B. Bitbucket cloud
- C. Github Professional
- D. Git in Azure Repos

GitHub Enterprise is the on-premises version of GitHub.com. GitHub Enterprise includes the same great set of features as GitHub.com but packaged for running on your organization's local network. All repository data is stored on machines that you control, and access is integrated with your organization's authentication

system (LDAP, SAML, or CAS).

Reference:

<https://www.azuredevopslabs.com/labs/azuredevops/yaml/>

Pipelines as Code with YAML



14.

You need to consider the underlined segment to establish whether it is accurate.

When moving to Azure DevOps, JIRA must be replaced with the build pipelines Azure DevOps service.

Select **No adjustment required** if the underlined segment is accurate. If the underlined segment is inaccurate, select the accurate option.

- A. No adjustment required.
- B. repos
- C. release pipelines
- D. boards

15.

You scan a Node.js application using WhiteSource Bolt.

The scan finds numerous libraries with invalid licenses, but are only used during development.

You have to make sure that only production dependencies are scanned by WhiteSource Bolt.

Which of the following is a command you should run?

- A. npm edit
- B. npm publish
- C. npm install
- D. npm update

16.

You are currently defining a release strategy for an app, named APP-01.

The strategy should allow you to keep the time it takes to deploy new releases of the app to a minimum. The strategy should also allow you to roll back in the shortest time required.

Which of the following is the release strategy you should use?

- A. Red/Black deployment
- B. Rolling deployment
- C. **Big Bang** deployment
- D. Canary deployment

17.

Your company hosts a web application in Azure, and makes use of Azure Pipelines for managing the build and release of the application.

When stakeholders report that system performance has been adversely affected by the most recent releases, you configure alerts in Azure Monitor.

You are informed that new releases must satisfy specified performance baseline conditions in the staging environment before they can be deployed to production.

You need to make sure that releases not satisfying the performance baseline are prevented from being deployed.

Which of the following actions should you take?

- A. You should make use of a branch control check.
- B. You should make use of an alert trigger.

- C. You should make use of a gate. **Most Voted**
- D. You should make use of an approval check.

18.

You need to consider the underlined segment to establish whether it is accurate.

To deploy an application to a number of Azure virtual machines, you should create a universal group.

Select **No adjustment required** if the underlined segment is accurate. If the underlined segment is inaccurate, select the accurate option.

- A. No adjustment required.
- B. security
- C. deployment
- D. Resource

[Azure Pipelines](#) | [Azure DevOps Server 2020](#) | [Azure DevOps Server 2019](#) | [TFS 2018](#)

A deployment group is a logical set of deployment target machines that have agents installed on each one. Deployment groups represent the physical environments; for example, "Dev", "Test", or "Production" environment. In effect, a deployment group is just another grouping of agents, much like an agent pool.

Deployment groups are only available with Classic pipelines and are different from deployment jobs. A deployment job is a collection of deployment-related steps defined in a YAML file to accomplish a specific task.

With deployment groups you can:

- Specify the security context and runtime targets for the agents. As you create a deployment group, you add users and give them appropriate permissions to administer, manage, view, and use the group.

19.

DRAG DROP -

You are preparing to deploy an Azure resource group via Terraform.

To achieve your goal, you have to install the necessary frameworks.

Which of the following are the frameworks you should use? Answer by dragging the correct options from the list to the answer area.

Select and Place:

Options

Answer

Options

Answer

Yeoman

Yeoman

Vault

Vault

Terratest

Terratest

Tiller

Tiller

Yeoman

Terratest

20.

You intend to make use of Azure Artifacts to share packages that you wrote, tested, validated, and deployed.

You want to use a solitary feed to release several builds of each package. You have to make sure that the release of packages that are in development is restricted.

Which of the following actions should you take?

- A. You should make use of static code analysis.
- B. You should make use of views. **Most Voted**
- C. You should make use of dynamic code analysis.
- D. You should make use of upstream sources.

21.

You need to consider the underlined segment to establish whether it is accurate.

To find when common open source libraries are added to the code base, you should add Jenkins to the build pipeline.

Select No adjustment required if the underlined segment is accurate. If the underlined segment is inaccurate, select the accurate option.

- A. No adjustment required.
- B. SourceGear Vault
- C. WhiteSource **Most Voted**
- D. OWASP ZAP

22.

Your company has an Azure DevOps project, which includes a build pipeline that makes use of roughly fifty open source libraries.

You have been tasked with making sure that you are able to scan project for common security weaknesses in the open source libraries.

Which of the following actions should you take?

- A. You should create a build task and use the WhiteSource Bolt service. **Most Voted**
- B. You should create a deployment task and use the WhiteSource Bolt service.
- C. You should create a build task and use the Chef service.
- D. You should create a deployment task and use the Chef service.

23.

You need to consider the underlined segment to establish whether it is accurate.

Black Duck can be used to make sure that all the open source libraries conform to your company's licensing criteria.

Select No adjustment required if the underlined segment is accurate. If the underlined segment is inaccurate, select the accurate option.

- A. No adjustment required.
- B. Maven
- C. Bamboo
- D. CMAKE

24.

You have created an Azure DevOps project for a new application that will be deployed to a number of Windows Server 2016 Azure virtual machines.

You are preparing a deployment solution that allows for the virtual machines to maintain a uniform configuration, and also keep administrative effort with regards to configuring the virtual machines to a minimum.

Which of the following should be part of your solution? (Choose two.)

- A. Azure Resource Manager templates **Most Voted**
- B. The PowerShell Desired State Configuration (DSC) extension for Windows **Most Voted**
- C. Azure pipeline deployment groups
- D. The Custom Script Extension for Windows
- E. Azure pipeline stage templates

25.

Your company has an application that contains a number of Azure App Service web apps and Azure functions.

You would like to view recommendations with regards to the security of the web apps and functions. You plan to navigate to Compute and Apps to achieve your goal.

Which of the following should you access to make use of Compute and Apps?

- A. Azure Log Analytics
- B. Azure Event Hubs
- C. Azure Advisor
- D. Azure Security Center **Most Voted**

26.

You need to consider the underlined segment to establish whether it is accurate.

Your company has a multi-tier application that has its front end hosted in Azure App Service.

To pinpoint the average load times of the application pages, you should make use of Azure Event Hubs.

Select No adjustment required if the underlined segment is accurate. If the underlined segment is inaccurate, select the accurate option.

- A. No adjustment required.
- B. Azure Application Insights **Most Voted**
- C. Azure Log Analytics
- D. Azure Advisor

27.

Your company makes use of Azure SQL Database Intelligent Insights and Azure Application Insights for monitoring purposes.

You have been tasked with analyzing the monitoring using ad-hoc queries. You need to utilize the correct query language.

Solution: You use the Contextual Query Language (CQL).

Does the solution meet the goal?

- A. Yes
- B. No **Most Voted**

28.

Your company makes use of Azure SQL Database Intelligent Insights and Azure Application Insights for monitoring purposes.

You have been tasked with analyzing the monitoring using ad-hoc queries. You need to utilize the correct query language.

Solution: You use the Transact-SQL.

Does the solution meet the goal?

- A. Yes
- B. No

29.

Your company makes use of Azure SQL Database Intelligent Insights and Azure Application Insights for monitoring purposes.

You have been tasked with analyzing the monitoring using ad-hoc queries. You need to utilize the correct query language.

Solution: You use Azure Log Analytics.

Does the solution meet the goal?

- A. Yes **Most Voted**
- B. No **Most Voted**

30.

DRAG DROP -

You have recently created a web application for your company.

You have been tasked with making sure that a summary of the exceptions that transpire in the application is automatically sent to Microsoft Teams on a daily basis.

Which of the following Azure services should you use? Answer by dragging the correct options from the list to the answer area.

Select and Place:

Options

- Azure DevOps Project
- Azure Logic Apps
- Azure Pipelines
- Azure Application Insights

Answer

Options

- Azure DevOps Project
- Azure Logic Apps
- Azure Pipelines
- Azure Application Insights

Answer

- Azure Logic Apps
- Azure Application Insights

31.

You are in the process of building a mobile app aimed at Android and iOS devices.

All work items and release cycles are managed via Azure DevOps.

You want to make sure that crash reports for issue analysis is collected, and that beta releases are distributed to your testers. Also, you want to ensure that user feedback on the functionality of new apps is received. Which of the following must be part of your solution?

- A. The Microsoft Test & Feedback extension. **Most Voted**
- B. OWASP ZAP
- C. TFS Integration Platform
- D. Code Style

32.

DRAG DROP -

You need to recommend project metrics for dashboards in Azure DevOps.

Which chart widgets should you recommend for each metric? To answer, drag the appropriate chart widgets to the correct metrics. Each chart widget may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

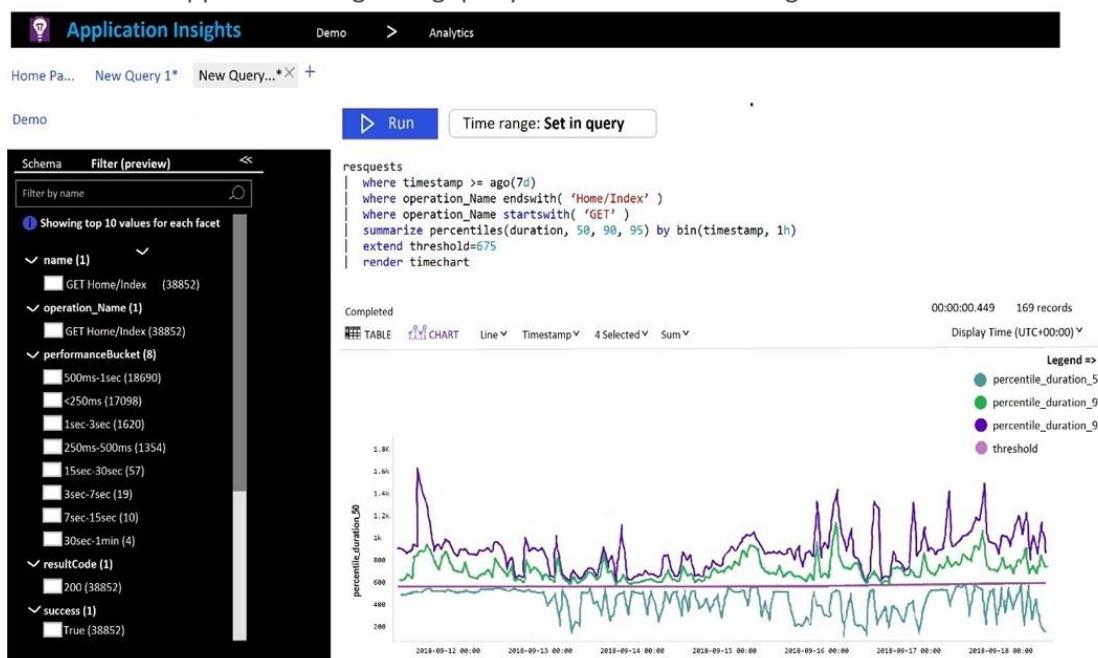
Chart Widgets	Answer Area	Chart Widgets	Answer Area
Burndown	The elapsed time from the creation of work items to their completion:	Burndown	The elapsed time from the creation of work items to their completion: <input type="text"/>
Cycle Time		Cycle Time	<input type="text"/> Lead Time
Lead Time	The elapsed time to complete work items once they are active:	Lead Time	The elapsed time to complete work items once they are active: <input type="text"/> Cycle Time
Velocity	The remaining work:	Velocity	The remaining work: <input type="text"/> Burndown

33.

HOTSPOT -

You plan to create alerts that will be triggered based on the page load performance of a home page.

You have the Application Insights log query shown in the following exhibit.



Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

To create an alert based on the page load experience of most users, the alerting level must be based on [answer choice].

percentile_duration_50
percentile_duration_90
percentile_duration_95
threshold

item Type
resultCode
source
success

To only create an alert when authentication error occurs on the server, the query must be filtered on [answer choice].

Percentile_duration_95 – resultCode

34.

You manage an Azure web app that supports an e-commerce website.

You need to increase the logging level when the web app exceeds normal usage patterns. The solution must minimize administrative overhead.

Which two resources should you include in the solution? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. an Azure Automation runbook
- B. an Azure Monitor alert that has a dynamic threshold
- C. an Azure Monitor alert that has a static threshold
- D. the Azure Monitor autoscale settings
- E. an Azure Monitor alert that uses an action group that has an email action

35.

HOTSPOT -

You have an Azure Kubernetes Service (AKS) pod.

You need to configure a probe to perform the following actions:

- ⇒ Confirm that the pod is responding to service requests.
- ⇒ Check the status of the pod four times a minute.
- ⇒ Initiate a shutdown if the pod is unresponsive.

How should you complete the YAML configuration file? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
apiVersion: v1
kind: Pod
metadata:
  labels:
    test: readiness-and-liveness
    name: readiness-http
spec:
  containers:
  - name: container1
    image: k8s.gcr.io/readiness-and-liveness
    args:
    - /server
    

|                 |
|-----------------|
| livenessProbe:  |
| readinessProbe: |
| ShutdownProbe:  |
| startupProbe:   |


    httpGet:
      path: /checknow
      port: 8123
      httpHeaders:
      - name: Custom-Header
        value: CheckNow
    

|                         |
|-------------------------|
| initialDelaySeconds: 15 |
| periodSeconds: 15       |
| timeoutSeconds: 15      |


```

Liveness - Period seconds 15

36.

You have a Microsoft ASP.NET Core web app in Azure that is accessed worldwide.

You need to run a URL ping test once every five minutes and create an alert when the web app is unavailable from specific Azure regions. The solution must minimize development time.

What should you do?

- A. Create an Azure Monitor Availability metric and alert.
- B. Create an Azure Application Insights availability test and alert.
- C. Write an Azure function and deploy the function to the specific regions.
- D. Create an Azure Service Health alert for the specific regions.

37.

You have a multi-tier application. The front end of the application is hosted in Azure App Service.

You need to identify the average load times of the application pages.

What should you use?

- A. Azure Application Insights **Most Voted**
- B. the activity log of the App Service
- C. the diagnostics logs of the App Service
- D. Azure Advisor

38.

SIMULATION -

You need to create an instance of Azure Application Insights named az400-9940427-main and configure the instance to receive telemetry data from an Azure web app named az400-9940427-main.

To complete this task, sign in to the Microsoft Azure portal.

>>>>

I think the solution should be: 1 Open the App Service for the app 2. Go to Application Insights Under setting 3. Click on the Application Insight instance that you already created 4. Click on Apply

39.

Your company uses ServiceNow for incident management.

You develop an application that runs on Azure.

The company needs to generate a ticket in ServiceNow when the application fails to authenticate.

Which Azure Log Analytics solution should you use?

- A. Application Insights Connector
- B. Automation & Control
- C. IT Service Management Connector (ITSM) **Most Voted**
- D. Insight & Analytics

40.

HOTSPOT -

Your company is building a new web application.

You plan to collect feedback from pilot users on the features being delivered.

All the pilot users have a corporate computer that has Google Chrome and the Microsoft Test & Feedback extension installed. The pilot users will test the application by using Chrome.

You need to identify which access levels are required to ensure that developers can request and gather feedback from the pilot users. The solution must use the principle of least privilege.

Which access levels in Azure DevOps should you identify? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Answer Area

Developers:

Basic
Stakeholder

Developers:

Basic
Stakeholder

Pilot users:

Basic
Stakeholder

Pilot users:

Basic
Stakeholder

41.

You use Azure SQL Database Intelligent Insights and Azure Application Insights for monitoring.

You need to write ad-hoc queries against the monitoring data.

Which query language should you use?

- A. Kusto Query Language (KQL) **Most Voted**
- B. PL/pgSQL
- C. PL/SQL
- D. Transact-SQL

42.

Your company creates a web application.

You need to recommend a solution that automatically sends to Microsoft Teams a daily summary of the exceptions that occur in the application.

Which two Azure services should you recommend? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Azure Logic Apps **Most Voted**
- B. Azure Pipelines
- C. Microsoft Visual Studio App Center
- D. Azure DevOps Project
- E. Azure Application Insights **Most Voted**

43.

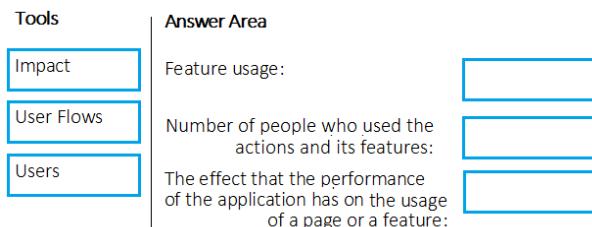
DRAG DROP -

Your company wants to use Azure Application Insights to understand how user behaviors affect an application.

Which Application Insights tool should you use to analyze each behavior? To answer, drag the appropriate tools to the correct behaviors. Each tool may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:



Feature usage -> Users .User action by day -> User Flows .The effect ... -> Impact

44.

Your company is building a mobile app that targets Android and iOS devices.

Your team uses Azure DevOps to manage all work items and release cycles.

You need to recommend a solution to perform the following tasks:

- Collect crash reports for issue analysis.
- Distribute beta releases to your testers.
- Get user feedback on the functionality of new apps.

What should you include in the recommendation?

- A. the Microsoft Test & Feedback extension
- B. Microsoft Visual Studio App Center integration **Most Voted**
- C. Azure Application Insights widgets
- D. Jenkins integration

45.

You have an Azure DevOps project named Project1 and an Azure subscription named Sub1. Sub1 contains an Azure virtual machine scale set named VMSS1.

VMSS1 hosts a web application named WebApp1. WebApp1 uses stateful sessions.

The WebApp1 installation is managed by using the Custom Script extension. The script resides in an Azure Storage account named sa1.

You plan to make a minor change to a UI element of WebApp1 and to gather user feedback about the change.

You need to implement limited user testing for the new version of WebApp1 on VMSS1.

Which three actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Modify the load balancer settings of VMSS1.
- B. Redeploy VMSS1.
- C. Upload a custom script file to sa1. **Most Voted**
- D. Modify the Custom Script extension settings of VMSS1. **Most Voted**
- E. Update the configuration of a virtual machine in VMSS1. **Most Voted**

46.

SIMULATION -

You need to create a notification if the peak average response time of an Azure web app named az400-9940427-main is more than five seconds when evaluated during a five-minute period. The notification must trigger the `https://contoso.com/notify` webhook.

To complete this task, sign in to the Microsoft Azure portal.

>>>>>

Open Microsoft Azure Portal

2. Log into your Azure account and go to App Service and look under Monitoring then you will see Alert.
3. Select Add an alert rule
4. Configure the alert rule as per below and click Ok.

Source: Alert on Metrics -

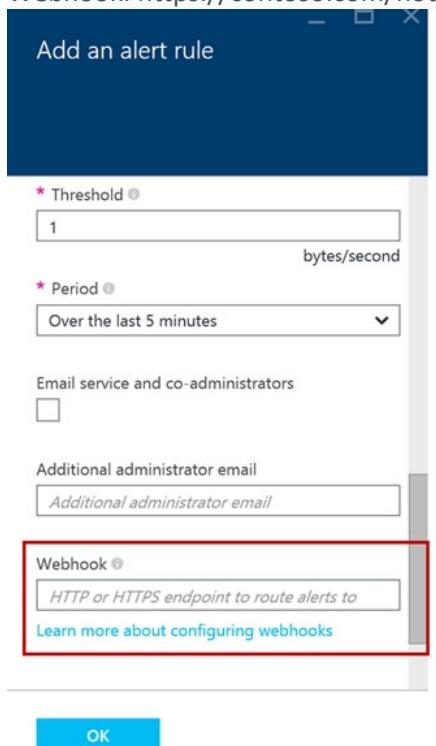
Resource Group: az400-9940427-main

Resource: az400-9940427-main -

Threshold: 5 -

Period: Over the last 5 minutes -

Webhook: `https://contoso.com/notify`



Reference:

<https://azure.microsoft.com/es-es/blog/webhooks-for-azure-alerts/>

47.

SIMULATION -

You need to create and configure an Azure Storage account named az400lod11566895stor in a resource group named RG1lod11566895 to store the boot diagnostics for a virtual machine named VM1.

To complete this task, sign in to the Microsoft Azure portal.

>>>

Step 1: To create a general-purpose v2 storage account in the Azure portal, follow these steps:

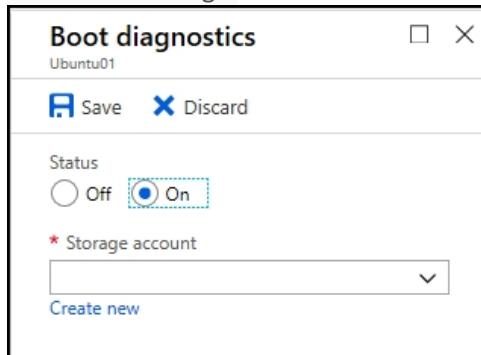
1. On the Azure portal menu, select All services. In the list of resources, type Storage Accounts. As you begin typing, the list filters based on your input. Select Storage Accounts.
2. On the Storage Accounts window that appears, choose Add.
3. Select the subscription in which to create the storage account.

4. Under the Resource group field, select RG1lod11566895
5. Next, enter a name for your storage account named: az400lod11566895stor
6. Select Create.

Step 2: Enable boot diagnostics on existing virtual machine

To enable Boot diagnostics on an existing virtual machine, follow these steps:

1. Sign in to the Azure portal, and then select the virtual machine VM1.
2. In the Support + troubleshooting section, select Boot diagnostics, then select the Settings tab.
3. In Boot diagnostics settings, change the status to On, and from the Storage account drop-down list, select the storage account az400lod11566895stor.
4. Save the change.



You must restart the virtual machine for the change to take effect. -----

Outdated answer. It's pretty similar but when you go to Boot Diagnostics, you have 3 options: Disable, Enable with managed storage account, Enable with custom storage account. You need to pick custom storage and there is an option to create a new storage account right there in the same RG as VM so you don't need to create it before. Unless the VM and SA will have to be in different RG but I don't think so. Regarding SA config, choose V2 and provide name. Restart VM. That's it.

48.

SIMULATION -

You have a web app that connects to an Azure SQL Database named db1.

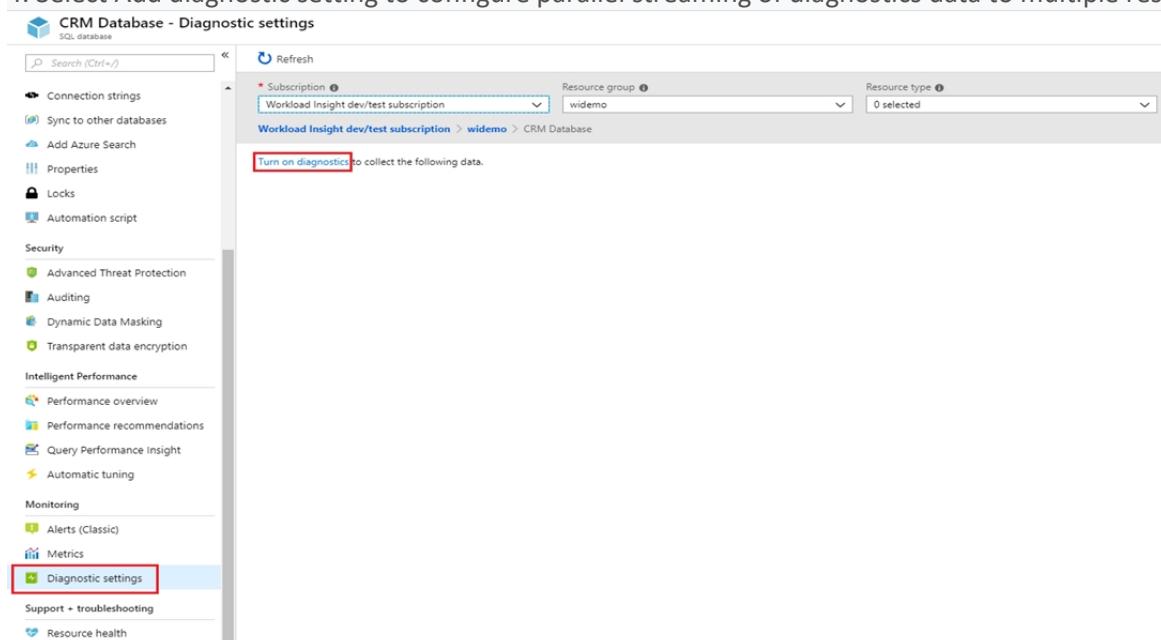
You need to configure db1 to send Query Store runtime statistics to Azure Log Analytics.

To complete this task, sign in to the Microsoft Azure portal.

>>>>>

To enable streaming of diagnostic telemetry for a single or a pooled database, follow these steps:

1. Go to Azure SQL database resource.
2. Select Diagnostics settings.
3. Select Turn on diagnostics if no previous settings exist, or select Edit setting to edit a previous setting. You can create up to three parallel connections to stream diagnostic telemetry.
4. Select Add diagnostic setting to configure parallel streaming of diagnostics data to multiple resources.



5. Enter a setting name for your own reference.

6. Select a destination resource for the streaming diagnostics data: Archive to storage account, Stream to an event hub, or Send to Log Analytics.

7. For the standard, event-based monitoring experience, select the following check boxes for database diagnostics log telemetry: QueryStoreRuntimeStatistics

Diagnostics settings

X

Save Discard Delete

* Name

service



Archive to a storage account

Stream to an event hub

Send to Log Analytics

Subscription

Workload Insight dev/test subscription

Log Analytics Workspace

sqlanalytics356 (westcentralus)

LOG

SQLInsights

AutomaticTuning

QueryStoreRuntimeStatistics

QueryStoreWaitStatistics

Errors

DatabaseWaitStatistics

Timeouts

Blocks

Deadlocks

METRIC

Basic

8. For an advanced, one-minute-based monitoring experience, select the check box for Basic metrics.

9. Select Save.

49.

DRAG DROP -

You have several Azure virtual machines that run Windows Server 2019.

You need to identify the distinct event IDs of each virtual machine as shown in the following table.

Name	Event ID
VM1	[704, 701, 1501, 1500, 1085]
VM2	[326, 105, 302, 301, 300, 102]
...	...

How should you complete the Azure Monitor query? To answer, drag the appropriate values to the correct locations. Each value may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Values	Answer Area
count()	Event
makelist(EventID)	where TimeGenerated > ago(12h)
makeset(EventID)	order by TimeGenerated desc
mv-expand	summarize
project	makelist(EventID) by Computer
render	
summarize	

50.

HOTSPOT -

You have an Azure web app named Webapp1.

You need to use an Azure Monitor query to create a report that details the top 10 pages of Webapp1 that failed.

How should you complete the query? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

The screenshot shows a query builder interface with two main sections: a left pane for selecting data sources and a right pane for building the query logic.

Left Pane (Available Options):

- exceptions
- pageViews
- requests
- traces

Right Pane (Query Logic):

```

| where
  duration == 0
  itemType == "availabilityResult"
  resultCode == "200"
  success == false
| summarize failedCount=sum(itemCount) by name, resultCode
| top 10 by failedCount desc
| render bchart
  
```

The 'requests' option is highlighted in green in the left pane, and the 'success == false' condition is highlighted in green in the 'where' clause of the query logic.

51.

You are monitoring the health and performance of an Azure web app by using Azure Application Insights.

You need to ensure that an alert is sent when the web app has a sudden rise in performance issues and failures.

What should you use?

- A. custom events
- B. Application Insights Profiler
- C. usage analysis
- D. Smart Detection **Most Voted**
- E. Continuous export

52.

HOTSPOT -

You have a project in Azure DevOps named Contoso App that contains pipelines in Azure Pipelines for GitHub repositories.

You need to ensure that developers receive Microsoft Teams notifications when there are failures in a pipeline of Contoso App.

What should you run in Teams? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Azure pipelines

feedback
signin
subscribe
subscriptions

https://dev.azure.com/contoso/contoso-app/
https://dev.azure.com/contoso/contoso-app/_build
https://dev.azure.com/contoso/contoso-app/_packaging
https://dev.azure.com/contoso/contoso-app/_work-items

53.

You have a private GitHub repository.

You need to display the commit status of the repository on Azure Boards.

What should you do first?

- A. Configure multi-factor authentication (MFA) for your GitHub account.
- B. Add the Azure Pipelines app to the GitHub repository.
- C. Add the Azure Boards app to the repository.
- D. Create a GitHub action in GitHub.

54.

You are integrating Azure Pipelines and Microsoft Teams.

You install the Azure Pipelines app in Microsoft Teams.

You have an Azure DevOps organization named Contoso that contains a project name Project1.

You subscribe to Project1 in Microsoft Teams.

You need to ensure that you only receive events about failed builds in Microsoft Teams.

What should you do first?

- A. From Microsoft Teams, run @azure pipelines subscribe <https://dev.azure.com/Contoso/Project1>.
- B. From Azure Pipelines, add a Publish Build Artifacts task to Project1.
- C. From Microsoft Teams, run @azure pipelines subscriptions. **Most Voted**
- D. From Azure Pipelines, enable continuous integration for Project1.

55.

You have an Azure DevOps organization named Contoso.

You need to receive Microsoft Teams notifications when work items are updated.

What should you do?

- A. From Azure DevOps, configure a service hook subscription
- B. From Microsoft Teams, configure a connector **Most Voted**
- C. From the Microsoft Teams admin center, configure external access
- D. From Microsoft Teams, add a channel
- E. From Azure DevOps, install an extension

56.

You create an alert rule in Azure Monitor as shown in the following exhibit.

Create rule
Rules management

*** RESOURCE**
ASP-9bb7
Select

HIERARCHY
Contoso > CoreApp1

*** CONDITION**
 Whenever the Activity Log has an event with Category='Administrative', SignName='All Administrative operations', Status='failed'
Add

Azure Alerts are currently limited to either 2 metric, 1 log, or 1 activity log signal per alert rule. To alert on more signals, please create additional alert rules.

ACTIONS GROUPS (optional)
Action group name
Application Insights Smart Detection
Contain actions
2 Email Azure Resource Manager Role(s)
Add Create

Action rules (preview) allows you to define actions at scale as well as suppress actions. Learn more about this functionality by clicking on this banner.

Which action will trigger an alert?

- A. a failed attempt to delete the ASP-9bb7 resource
- B. a change to a role assignment for the ASP-9bb7 resource
- C. a successful attempt to delete the ASP-9bb7 resource
- D. a failed attempt to scale up the ASP-9bb7 resource

57.

You have a web app hosted on Azure App Service. The web app stores data in an Azure SQL database.

You need to generate an alert when there are 10,000 simultaneous connections to the database. The solution must minimize development effort.

Which option should you select in the Diagnostics settings of the database?

- A. Send to Log Analytics
- B. Stream to an event hub
- C. Archive to a storage account

58.

HOTSPOT -

You use Azure DevOps to manage the build and deployment of an app named App1.

You have a release pipeline that deploys a virtual machine named VM1.

You plan to monitor the release pipeline by using Azure Monitor.

You need to create an alert to monitor the performance of VM1. The alert must be triggered when the average CPU usage exceeds 70 percent for five minutes.

The alert must calculate the average once every minute.

How should you configure the alert rule? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Answer Area

Aggregation granularity (Period):	1 minute 5 minutes	Aggregation granularity (Period):	1 minute 5 minutes
Threshold value:	Static Dynamic	Threshold value:	Static Dynamic
Operator:	Greater than Greater than or equal to Less than or equal to Less than	Operator:	Greater than Greater than or equal to Less than or equal to Less than

59.

You have an Azure subscription that contains multiple Azure services.

You need to send an SMS alert when scheduled maintenance is planned for the Azure services.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Enable Azure Security Center.
- B. Create and configure an Azure Monitor alert rule.
- C. Create an Azure Service Health alert.
- D. Create and configure an action group.

60.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure DevOps organization named Contoso and an Azure subscription. The subscription contains an Azure virtual machine scale set named VMSS1 that is configured for autoscaling.

You have a project in Azure DevOps named Project1. Project1 is used to build a web app named App1 and deploy App1 to VMSS1.

You need to ensure that an email alert is generated whenever VMSS1 scales in or out.

Solution: From Azure Monitor, configure the autoscale settings.

Does this meet the goal?

- A. Yes
- B. No

61.

You configure Azure Application Insights and the shared service plan tier for a web app.

You enable Smart Detection.

You confirm that standard metrics are visible in the logs, but when you test a failure, you do not receive a Smart Detection notification.

What prevents the Smart Detection notification from being sent?

- A. You must enable the Snapshot Debugger for the web app.
- B. Smart Detection uses the first 24 hours to establish the normal behavior of the web app.
- C. The web app is configured to use the shared service plan tier.
- D. You must restart the web app before Smart Detection is enabled.

62.

DRAG DROP -

You are planning projects for three customers. Each customer's preferred process for work items is shown in the following table.

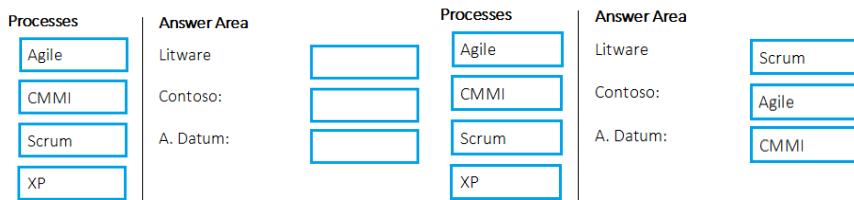
Customer name	Preferred process
Litware, Inc.	Track product backlog items (PBIs) and bugs on the Kanban board. Break the PBIs down into tasks on the task board.
Contoso, Ltd.	Track user stories and bugs on the Kanban board. Track the bugs and tasks on the task board.
A. Datum Corporation	Track requirements, change requests, risks, and reviews.

The customers all plan to use Azure DevOps for work item management.

Which work item process should you use for each customer? To answer, drag the appropriate work item processes to the correct customers. Each work item process may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:



63.

You configure an Azure Application Insights availability test.

You need to notify the customer services department at your company by email when availability is degraded.

You create an Azure logic app that will handle the email and follow up actions.

Which type of trigger should you use to invoke the logic app?

- A. an HTTPWebhook trigger
- B. an HTTP trigger
- C. a Request trigger **Most Voted**
- D. an ApiConnection trigger

64.

You have an Azure DevOps organization named Contoso and an Azure subscription.

You use Azure DevOps to build a containerized app named App1 and deploy App1 to an Azure container instance named ACI1.

You need to restart ACI1 when App1 stops responding.

What should you do?

- A. Add a liveness probe to the YAML configuration of App1. **Most Voted**
- B. Add a readiness probe to the YAML configuration of App1.
- C. Use Connection Monitor in Azure Network Watcher.
- D. Use IP flow verify in Azure Network Watcher.

65.

You have a multi-tier application that has an Azure Web Apps front end and an Azure SQL Database back end.

You need to recommend a solution to capture and store telemetry data. The solution must meet the following requirements:

- ⇒ Support using ad-hoc queries to identify baselines.
- ⇒ Trigger alerts when metrics in the baseline are exceeded.
- ⇒ Store application and database metrics in a central location.

What should you include in the recommendation?

- A. Azure Event Hubs
- B. Azure SQL Database Intelligent Insights
- C. Azure Application Insights
- D. Azure Log Analytics

66.

You have an Azure DevOps organization named Contoso and an Azure subscription. The subscription contains an Azure virtual machine scale set named VMSS1 that is configured for autoscaling.

You use Azure DevOps to build a web app named App1 and deploy App1 to VMSS1. App1 is used heavily and has usage patterns that vary on a weekly basis.

You need to recommend a solution to detect an abnormal rise in the rate of failed requests to App1. The solution

must minimize administrative effort.

What should you include in the recommendation?

- A. the Smart Detection feature in Azure Application Insights **Most Voted**
- B. the Failures feature in Azure Application Insights
- C. an Azure Service Health alert
- D. an Azure Monitor alert that uses an Azure Log Analytics query

67.

SIMULATION -

You need to ensure that Microsoft Visual Studio 2017 can remotely attach to an Azure Function named fa-11566895.

To complete this task, sign in to the Microsoft Azure portal.

>>>>

1. Navigate in the Azure portal to your function app fa-11566895 and click on Configuration in left panel 2. Go to the "General settings" 3. Under "Debugging" set Remote Debugging to On and set Remote Visual Studio version to 2017.

68.

You have an Azure subscription that contains resources in several resource groups.

You need to design a monitoring strategy that will provide a consolidated view. The solution must support the following requirements:

- ⇒ Support role-based access control (RBAC) by using Azure Active Directory (Azure AD) identities.
- ⇒ Include visuals from Azure Monitor that are generated by using the Kusto query language.
- ⇒ Support documentation written in markdown.
- ⇒ Use the latest data available for each visual.

What should you use to create the consolidated view?

- A. Azure Monitor
- B. Microsoft Power BI
- C. Azure Data Explorer
- D. Azure dashboards **Most Voted**

69.

You are automating the testing process for your company.

You need to automate UI testing of a web application.

Which framework should you use?

- A. JaCoco
- B. Selenium
- C. Xamarin.UITest
- D. Microsoft.CodeAnalysis

70.

You are building an ASP.NET Core application.

You plan to create an application utilization baseline by capturing telemetry data.

You need to add code to the application to capture the telemetry data. The solution must minimize the costs of storing the telemetry data.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point

- A. Add the <InitialSamplingPercentage>99</InitialSamplingPercentage> parameter to the ApplicationInsights.config file.
- B. From the code of the application, enable adaptive sampling.
- C. From the code of the application, add Azure Application Insights telemetry. **Most Voted**
- D. Add the <MaxTelemetryItemsPerSecond>5</MaxTelemetryItemsPerSecond> parameter to the ApplicationInsights.config file.
- E. From the code of the application, disable adaptive sampling. **Most Voted**

71.

You have an Azure DevOps organization named Contoso and an Azure subscription. The subscription contains an Azure virtual machine scale set named VMSS1 and an Azure Standard Load Balancer named LB1. LB1 distributes

incoming requests across VMSS1 instances.

You use Azure DevOps to build a web app named App1 and deploy App1 to VMSS1. App1 is accessible via HTTPS only and configured to require mutual authentication by using a client certificate.

You need to recommend a solution for implementing a health check of App1. The solution must meet the following requirements:

- ⇒ Identify whether individual instances of VMSS1 are eligible for an upgrade operation.
- ⇒ Minimize administrative effort.

What should you include in the recommendation?

- A. an Azure Load Balancer health probe
- B. Azure Monitor autoscale
- C. the Custom Script Extension
- D. the Application Health extension **Most Voted**

72.

HOTSPOT -

You have an application named App1 that has a custom domain of app.contoso.com.

You create a test in Azure Application Insights as shown in the following exhibit.

Create test

^ Basic Information

* Test name

availability



Learn more about configuring tests against applications hosted behind a firewall

Test type

URL ping test



* URL

https://app.contoso.com



Parse dependent requests



Enable retries for availability test failures.



Test frequency

5 minutes



▼ Test locations

4 location(s) configured

^ Success criteria

Test Timeout

30 seconds



HTTP response

Status code must equal

200

Content match

Content must contain

Copyright Contoso

▼ Alerts

Enabled

Create

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

The test will execute [answer choice].

every 30 seconds at a random location
every 30 seconds per location
every five minutes at a random location
every five minutes per location

The test will pass if [answer choice] within 30 seconds.

App1 responds to an ICMP ping
the HTML of App1 and the HTML from URLs in <a> tags load
all the HTML, JavaScripts, and images of App1 load

Box1: every five minutes per location I tested this in my lab and confirmed that each location will be tested every minute. Box2: All the HTML, JavaScripts, and images of App1 load If you selected Parse dependent requests, then all the images, style files, scripts, and other dependent resources must have been received within this period. <https://docs.microsoft.com/en-us/azure/azure-monitor/app/monitor-web-app-availability>

73.

You have a build pipeline in Azure Pipelines that occasionally fails.

You discover that a test measuring the response time of an API endpoint causes the failures.

You need to prevent the build pipeline from failing due to the test.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Set Flaky test detection to Off.
- B. Clear Flaky tests included in test pass percentage.
- C. Enable Test Impact Analysis (TIA).
- D. Manually mark the test as flaky.
- E. Enable test slicing.

74.

Your company hosts a web application in Azure. The company uses Azure Pipelines for the build and release management of the application.

Stakeholders report that the past few releases have negatively affected system performance.

You configure alerts in Azure Monitor.

You need to ensure that new releases are only deployed to production if the releases meet defined performance baseline criteria in the staging environment first.

What should you use to prevent the deployment of releases that fall to meet the performance baseline?

- A. an Azure Scheduler job
- B. a trigger
- C. a gate
- D. an Azure function

75.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You manage a project in Azure DevOps.

You need to prevent the configuration of the project from changing over time.

Solution: Perform a Subscription Health scan when packages are created.

Does this meet the goal?

- A. Yes
- B. No

76.

Your company uses the following resources:

Windows Server 2019 container images hosted in an Azure Container Registry.

Azure virtual machines that run the latest version of Ubuntu

An Azure Log Analytics workspace

Azure Active Directory (Azure AD)

An Azure key vault

For which two resources can you receive vulnerability assessments in Azure Security Center? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. the Azure Log Analytics workspace
- B. the Azure key vault
- C. the Azure virtual machines that run the latest version of Ubuntu **Most Voted**
- D. Azure Active Directory (Azure AD)
- E. The Windows Server 2019 container images hosted in the Azure Container Registry. **Most Voted**

77.

You use Azure Pipelines to manage build pipelines, GitHub to store source code, and Dependabot to manage dependencies.

You have an app named App1.

Dependabot detects a dependency in App1 that requires an update.

What should you do first to apply the update?

- A. Create a pull request.
- B. Approve the pull request.
- C. Create a branch.
- D. Perform a commit.

78.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You manage a project in Azure DevOps.

You need to prevent the configuration of the project from changing over time.

Solution: Add a code coverage step to the build pipelines.

Does this meet the goal?

- A. Yes
- B. No

79.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You manage a project in Azure DevOps.

You need to prevent the configuration of the project from changing over time.

Solution: Implement Continuous Integration for the project.

Does this meet the goal?

- A. Yes
- B. No

80.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You manage a project in Azure DevOps.

You need to prevent the configuration of the project from changing over time.

Solution: Implement Continuous Assurance for the project.

Does this meet the goal?

- A. Yes
- B. No

81.

You are designing a configuration management solution to support five apps hosted on Azure App Service. Each app is available in the following three environments: development, test, and production.

You need to recommend a configuration management solution that meets the following requirements:

- ⇒ Supports feature flags
- ⇒ Tracks configuration changes from the past 30 days
- ⇒ Stores hierarchically structured configuration values
- ⇒ Controls access to the configurations by using role-based access control (RBAC) permissions
- ⇒ Stores shared values as key/value pairs that can be used by all the apps

Which Azure service should you recommend as the configuration management solution?

- A. Azure Cosmos DB
- B. Azure App Service
- C. Azure App Configuration
- D. Azure Key Vault

82.

You have a containerized solution that runs in Azure Container Instances. The solution contains a frontend container named App1 and a backend container named DB1. DB1 loads a large amount of data during startup.

You need to verify that DB1 can handle incoming requests before users can submit requests to App1.

What should you configure?

- A. a liveness probe
- B. a performance log
- C. a readiness probe
- D. an Azure Load Balancer health probe

83.

You are designing a strategy to monitor the baseline metrics of Azure virtual machines that run Windows Server.

You need to collect detailed data about the processes running in the guest operating system.

Which two agents should you deploy? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. the Telegraf agent
- B. the Azure Log Analytics agent
- C. the Azure Network Watcher Agent for Windows
- D. the Dependency agent

84.

DRAG DROP -

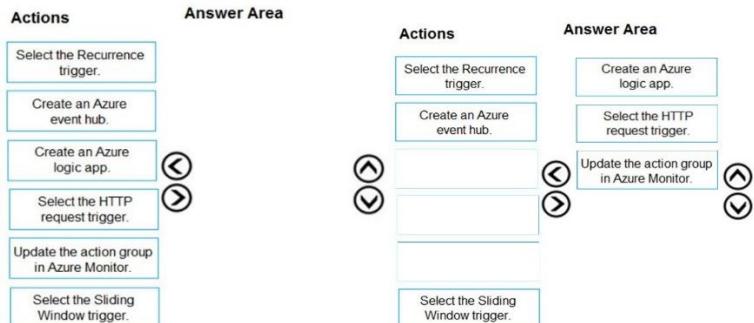
You use Azure Pipelines to automate Continuous Integration/Continuous Deployment (CI/CD) for an Azure web app named WebApp1.

You configure an Azure Monitor alert that is triggered when WebApp1 generates an error.

You need to configure the alert to forward details of the error to a third-party system. The solution must minimize administrative effort.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:



85.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure DevOps organization named Contoso and an Azure subscription. The subscription contains an Azure virtual machine scale set named VMSS1 that is configured for autoscaling.

You have a project in Azure DevOps named Project1. Project1 is used to build a web app named App1 and deploy App1 to VMSS1.

You need to ensure that an email alert is generated whenever VMSS1 scales in or out.

Solution: From Azure DevOps, configure the Notifications settings for Project1.

Does this meet the goal?

- A. Yes
- B. No

86.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure DevOps organization named Contoso and an Azure subscription. The subscription contains an Azure virtual machine scale set named VMSS1 that is configured for autoscaling.

You have a project in Azure DevOps named Project1. Project1 is used to build a web app named App1 and deploy App1 to VMSS1.

You need to ensure that an email alert is generated whenever VMSS1 scales in or out.

Solution: From Azure DevOps, configure the Service hooks settings for Project1.

Does this meet the goal?

- A. Yes
- B. No

87.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure DevOps organization named Contoso and an Azure subscription. The subscription contains an Azure virtual machine scale set named VMSS1 that is configured for autoscaling.

You have a project in Azure DevOps named Project1. Project1 is used to build a web app named App1 and deploy App1 to VMSS1.

You need to ensure that an email alert is generated whenever VMSS1 scales in or out.

Solution: From Azure Monitor, create an action group.

Does this meet the goal?

- A. Yes
- B. No

88.

HOTSPOT -

You have an Azure subscription that contains the resources shown in the following table.

Name	Type
DF1	Azure Data Factory
SQL1	Azure SQL Database
KV1	Azure Key Vault

You plan to create a linked service in DF1. The linked service will connect to SQL1 by using Microsoft SQL Server authentication. The password for the SQL

Server login will be stored -
in KV1.

You need to configure DF1 to retrieve the password when the data factory connects to SQL1. The solution must use the principle of least privilege.

How should you configure DF1? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Permission type:

- Key
- Secret
- Certificate

Access method:

- Access policy
- Service endpoint policy
- Role-based access control (RBAC)

Hot Area

89.

You have several Azure Active Directory (Azure AD) accounts.

You need to ensure that users use multi-factor authentication (MFA) to access Azure apps from untrusted networks.

What should you configure in Azure AD?

- A. access reviews
- B. managed identities
- C. entitlement management
- D. conditional access

90.

You plan to provision a self-hosted Linux agent.

Which authentication mechanism should you use to register the self-hosted agent?

- A. personal access token (PAT)
- B. SSH key
- C. Alternate credentials
- D. certificate

91.

You are building a Microsoft ASP.NET application that requires authentication.

You need to authenticate users by using Azure Active Directory (Azure AD).

What should you do first?

- A. Assign an enterprise application to users and groups
- B. Create an app registration in Azure AD
- C. Configure the application to use a SAML endpoint
- D. Create a new OAuth token from the application
- E. Create a membership database in an Azure SQL database

92.

You have an Azure DevOps organization named Contoso.

You need to recommend an authentication mechanism that meets the following requirements:

- ⇒ Supports authentication from Git
 - ⇒ Minimizes the need to provide credentials during authentication
- What should you recommend?

- A. personal access tokens (PATs) in Azure DevOps
- B. Alternate credentials in Azure DevOps
- C. user accounts in Azure Active Directory (Azure AD)
- D. managed identities in Azure Active Directory (Azure AD)

93.

You have an application that consists of several Azure App Service web apps and Azure functions.

You need to assess the security of the web apps and the functions.

Which Azure feature can you use to provide a recommendation for the security of the application?

- A. Security & Compliance in Azure Log Analytics
- B. Resource health in Azure Service Health
- C. Smart Detection in Azure Application Insights
- D. Compute & apps in Azure Security Center

94.

Your company has a project in Azure DevOps for a new web application.

The company identifies security as one of the highest priorities.

You need to recommend a solution to minimize the likelihood that infrastructure credentials will be leaked.

What should you recommend?

- A. Add a Run Inline Azure PowerShell task to the pipeline.
- B. Add a PowerShell task to the pipeline and run Set-AzureKeyVaultSecret.
- C. Add an Azure Key Vault task to the pipeline.
- D. Add Azure Key Vault references to Azure Resource Manager templates. **Most Voted**

95.

SIMULATION -

You need to ensure that an Azure web app named az400-9940427-main can retrieve secrets from an Azure key vault named az400-9940427-kv1 by using a system managed identity.

The solution must use the principle of least privilege.

To complete this task, sign in to the Microsoft Azure portal. *See explanation below.*

1. In Azure portal navigate to the az400-9940427-main app.
2. Scroll down to the Settings group in the left navigation.
3. Select Managed identity.
4. Within the System assigned tab, switch Status to On. Click Save.
- 1) Enable identity for resource
- 2) Go to KV
- 3) Access policies
- 4) Add
- 5) click Select principal -> Find your resource identity
- 6) Choose proper permissions, for getting secrets it's only GET in secret permissions
- 7) Add
- 8) Save

96.

You create a Microsoft ASP.NET Core application.

You plan to use Azure Key Vault to provide secrets to the application as configuration data.

You need to create a Key Vault access policy to assign secret permissions to the application. The solution must use the principle of least privilege.

Which secret permissions should you use?

- A. List only
- B. Get only **Most Voted**
- C. Get and List

97. DRAG DROP -

Your company has a project in Azure DevOps.

You plan to create a release pipeline that will deploy resources by using Azure Resource Manager templates.

The templates will reference secrets stored in Azure

Key Vault.

You need to recommend a solution for accessing the secrets stored in the key vault during deployments. The solution must use the principle of least privilege.

What should you include in the recommendation? To answer, drag the appropriate configurations to the correct targets. Each configuration may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Configurations	Answer Area
A Key Vault access policy	Enable key vaults for template deployment by using: _____
A Key Vault advanced access policy	Restrict access to the secrets in Key Vault by using: _____
RBAC	_____

The Access Policy blade has changed: Enable Access to: Check box: Azure Virtual Machines for deployment
Check box: Azure Resource Manager for template deployment Check box: Azure Disk Encryption for volume encryption
1) Key Vault Access Policy 2) RBAC

98.

DRAG DROP -

You need to configure access to Azure DevOps agent pools to meet the following requirements:

- Use a project agent pool when authoring build or release pipelines.
- View the agent pool and agents of the organization.
- Use the principle of least privilege.

Which role memberships are required for the Azure DevOps organization and the project? To answer, drag the appropriate role memberships to the correct targets. Each role membership may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Roles	Answer Area
Administrator	Organization: _____
Reader	Project: _____
Service Account	_____
User	_____

Organization -> Reader Project -> User

<https://docs.microsoft.com/en-us/azure/devops/organizations/security/about-security-roles?view=azure-devops> <https://docs.microsoft.com/en-us/azure/devops/pipelines/agents/pools-queues?view=azure-devops&tabs=yaml%2Cbrowser#security>

99.

You have a branch policy in a project in Azure DevOps. The policy requires that code always builds successfully. You need to ensure that a specific user can always merge changes to the master branch, even if the code fails to compile. The solution must use the principle of least privilege.

What should you do?

- A. Add the user to the Build Administrators group.
- B. Add the user to the Project Administrators group.
- C. From the Security settings of the repository, modify the access control for the user.
- D. From the Security settings of the branch, modify the access control for the user.

100.

You have an Azure Resource Manager template that deploys a multi-tier application.

You need to prevent the user who performs the deployment from viewing the account credentials and connection strings used by the application.

What should you use?

- A. Azure Key Vault
- B. a Web.config file
- C. an Appsettings.json file
- D. an Azure Storage table
- E. an Azure Resource Manager parameter file

101.

SIMULATION -

Your company plans to implement a new compliance strategy that will require all Azure web apps to be backed up every five hours.

You need to back up an Azure web app named az400-11566895-main every five hours to an Azure Storage account in your resource group.

To complete this task, sign in to the Microsoft Azure portal. >>>>>>>>>>

Correct Answer: See explanation below.

With the storage account ready, you can configure backups in the web app or App Service.

1. Open the App Service az400-11566895-main, which you want to protect, in the Azure Portal and browse to Settings > Backups. Click Configure and a Backup Configuration blade should appear.

2. Select the storage account.

3. Click + to create a private container. You could name this container after the web app or App Service.

4. Select the container.

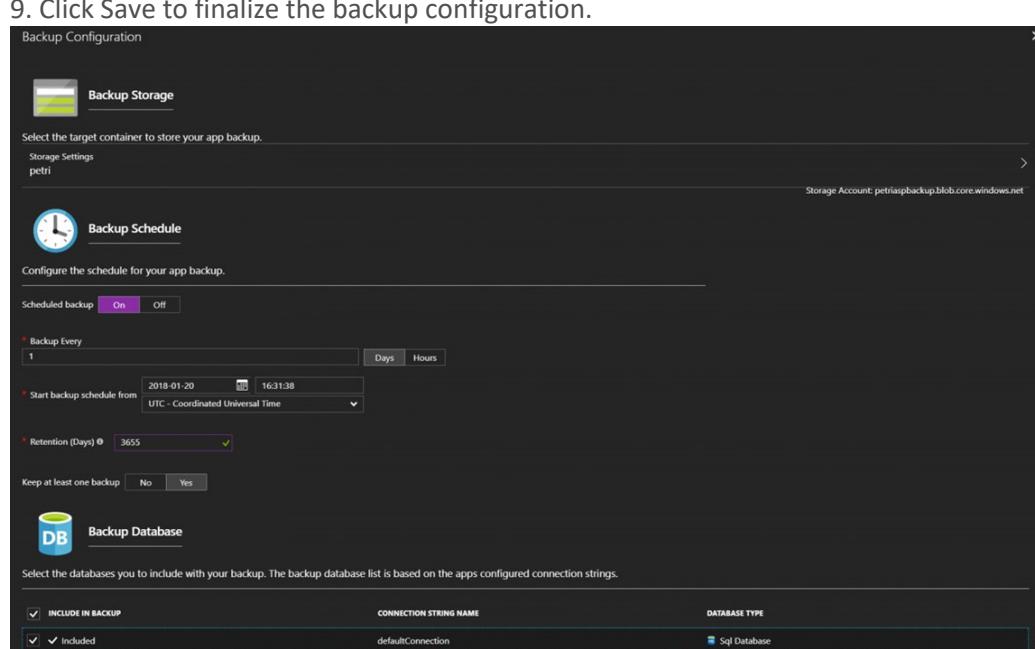
5. If you want to schedule backups, then set Scheduled Backup to On and configure a schedule: every five hours

6. Select your retention. Note that 0 means never delete backups.

7. Decide if at least one backup should always be retained.

8. Choose if any connected databases should be included in the web app backup.

9. Click Save to finalize the backup configuration.



Reference:

<https://petri.com/backing-azure-app-service>

102.

SIMULATION -

You need to configure a virtual machine named VM1 to securely access stored secrets in an Azure Key Vault named az400-11566895-kv.

To complete this task, sign in to the Microsoft Azure portal.>>>>

I have already answered this in a similar question a page or two back. But again in a nutshell: 1) Enable Identity for VM 2) Go to KV 3) Go to Access Policies 4) Click Add new, select your resource, check proper permissions 5) Add 6) Save

You can use a system-assigned managed identity for a Windows virtual machine (VM) to access Azure Key Vault.

1. Sign in to Azure portal
2. Locate virtual machine VM1.
3. Select Identity
4. Enable the system-assigned identity for VM1 by setting the Status to On.

A system assigned managed identity enables Azure resources to authenticate to cloud services (e.g. Azure Key Vault) without storing credentials in code. Once enabled, all necessary permissions can be granted via Azure role-based-access-control. The lifecycle of this type of managed identity is tied to the lifecycle of this resource. Additionally, each resource (e.g. Virtual Machine) can only have one system assigned managed identity. [Learn more about Managed identities.](#)

Note: Enabling a system-assigned managed identity is a one-click experience. You can either enable it during the creation of a VM or in the properties of an existing VM.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/tutorial-windows-vm-access-nonaad>

103.

DRAG DROP -

Your company has an Azure subscription named Subscription1. Subscription1 is associated to an Azure Active Directory tenant named contoso.com.

You need to provision an Azure Kubernetes Services (AKS) cluster in Subscription1 and set the permissions for the cluster by using RBAC roles that reference the identities in contoso.com.

Which three objects should you create in sequence? To answer, move the appropriate objects from the list of objects to the answer area and arrange them in the correct order.

Select and Place:

Answer Area

Objects

a system-assigned managed identity

a cluster

an application registration in contoso.com

an RBAC binding

a cluster

a system-assigned managed identity

an RBAC binding

104.

HOTSPOT -

You manage build and release pipelines by using Azure DevOps. Your entire managed environment resides in Azure.

You need to configure a service endpoint for accessing Azure Key Vault secrets. The solution must meet the following requirements:

Ensure that the secrets are retrieved by Azure DevOps.

Avoid persisting credentials and tokens in Azure DevOps.

How should you configure the service endpoint? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Service connection type:

- Azure Resource Manager
- Generic service
- Team Foundation Server / Azure Pipelines service connection

Authentication/authorization method for the connection:

- Azure Active Directory OAuth 2.0
- Grant authorization
- Managed Service Identity Authentication

1ARM (New Service connection -> Azure Resource Manager -> Service Principal (manual)) 2. Managed Identity

105.

You are deploying a server application that will run on a Server Core installation of Windows Server 2019.

You create an Azure key vault and a secret.

You need to use the key vault to secure API secrets for third-party integrations.

Which three actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Configure RBAC for the key vault.
- B. Modify the application to access the key vault. **Most Voted**
- C. Configure a Key Vault access policy. **Most Voted**
- D. Deploy an Azure Desired State Configuration (DSC) extension.
- E. Deploy a virtual machine that uses a system-assigned managed identity. **Most Voted**

106.

HOTSPOT -

Your company is creating a suite of three mobile applications.

You need to control access to the application builds. The solution must be managed at the organization level.

What should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Groups to control the build access:

Active Directory groups
Azure Active Directory groups
Microsoft Visual Studio App Center distribution groups

Group type:

Private
Public
Shared

107.

You have an Azure DevOps organization named Contoso that contains a project named Project1.

You provision an Azure key vault named Keyvault1.

You need to reference Keyvault1 secrets in a build pipeline of Project1.

What should you do first?

- A. Add a secure file to Project1.
- B. Create an XAML build service.
- C. Create a variable group in Project1. **Most Voted**
- D. Configure the security policy of Contoso.

108.

Your company uses Azure DevOps.

Only users who have accounts in Azure Active Directory can access the Azure DevOps environment.

You need to ensure that only devices that are connected to the on-premises network can access the Azure DevOps environment.

What should you do?

- A. Assign the Stakeholder access level to all users.
- B. In Azure Active Directory, configure risky sign-ins.
- C. In Azure DevOps, configure Security in Project Settings.
- D. In Azure Active Directory, configure conditional access.

109.

You have the following Azure policy.

```
if: {
  allof: [
    {
      "field": "type",
      "equals": "Microsoft.Storage/storageAccounts"
    },
    {
      "field": "Microsoft.Storage/storageAccounts/supportsHttpsTrafficOnly",
      "notEquals": "true"
    }
  ]
},
then: {
  effect: "deny"
}
```

You assign the policy to the Tenant root group.

What is the effect of the policy?

- A. prevents all HTTP traffic to existing Azure Storage accounts
- B. ensures that all traffic to new Azure Storage accounts is encrypted **Most Voted**
- C. prevents HTTPS traffic to new Azure Storage accounts when the accounts are accessed over the Internet
- D. ensures that all data for new Azure Storage accounts is encrypted at rest

110.

You have an Azure DevOps organization named Contoso, an Azure DevOps project named Project1, an Azure subscription named Sub1, and an Azure key vault named vault1.

You need to ensure that you can reference the values of the secrets stored in vault1 in all the pipelines of Project1. The solution must prevent the values from being stored in the pipelines.

What should you do?

- A. Create a variable group in Project1.
- B. Add a secure file to Project1.
- C. Modify the security settings of the pipelines.
- D. Configure the security policy of Contoso.

111.

DRAG DROP -

You use GitHub Enterprise Server as a source code repository.

You create an Azure DevOps organization named Contoso.

In the Contoso organization, you create a project named Project1.

You need to link GitHub commits, pull requests, and issues to the work items of Project1. The solution must use OAuth-based authentication.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions

Answer Area

From Developer settings in GitHub Enterprise Server, register a new OAuth app.

From Developer settings in GitHub Enterprise Server, register a new OAuth app.

From Project Settings in Azure DevOps, create a service hook subscription.

From Organization settings in Azure DevOps, add an OAuth configuration.

From Organization settings in Azure DevOps, connect to Azure Active Directory (Azure AD).

From Project Settings in Azure DevOps, add a GitHub connection.

From Project Settings in Azure DevOps, add a GitHub connection.



From Organization settings in Azure DevOps, add an OAuth configuration.



From Developer settings in GitHub Enterprise Server, generate a private key.

Step 1: From Developer settings in GitHub Enterprise Server, register a new OAuth app.

If you plan to use OAuth to connect Azure DevOps Services or Azure DevOps Server with your GitHub Enterprise Server, you first need to register the application as an OAuth App

Step 2: Organization settings in Azure DevOps, add an OAuth configuration

Register your OAuth configuration in Azure DevOps Services.

Note:

1. Sign into the web portal for Azure DevOps Services.
2. Add the GitHub Enterprise OAuth configuration to your organization.
3. Open Organization settings > OAuth configurations, and choose Add OAuth configuration.
4. Fill in the form that appears, and then choose Create.

Step 3: From Project Settings in Azure DevOps, add a GitHub connection.

Connect Azure DevOps Services to GitHub Enterprise Server

Choose the Azure DevOps logo to open Projects, and then choose the Azure Boards project you want to configure to connect to your GitHub Enterprise repositories.

Choose (1) Project Settings, choose (2) GitHub connections and then (3) Click here to connect to your GitHub Enterprise organization.

Reference:

<https://docs.microsoft.com/en-us/azure/devops/boards/github/connect-to-github>

112.

DRAG DROP -

You are configuring an Azure DevOps deployment pipeline. The deployed application will authenticate to a web service by using a secret stored in an Azure key vault.

You need to use the secret in the deployment pipeline.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions	Answer Area
Create a service principal in Azure Active Directory (Azure AD).	Create a service principal in Azure Active Directory (Azure AD).
Add an app registration in Azure Active Directory (Azure AD).	Configure an access policy in the key vault.
Configure an access policy in the key vault.	Add an Azure Resource Manager service connection to the pipeline.
Generate a self-signed certificate.	() ↕ () ↘
Add an Azure Resource Manager service connection to the pipeline.	
Export a certificate from the key vault.	

<https://azuredavolabs.com/labs/vstsextend/azurekeyvault/>

113.

DRAG DROP -

You have a private project in Azure DevOps and two users named User1 and User2.

You need to add User1 and User2 to groups to meet the following requirements:

- ⇒ User1 must be able to create a code wiki.
- ⇒ User2 must be able to edit wiki pages.
- ⇒ The solution must use the principle of least privilege.

To which group should you add each user? To answer, drag the appropriate groups to the correct users. Each group may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Groups	Answer Area
Build Administrators	User1: Project Administrators
Contributors	User2: Contributors
Project Administrators	
Project Valid Users	
Stakeholders	

114.

You use WhiteSource Bolt to scan a Node.js application.

The WhiteSource Bolt scan identifies numerous libraries that have invalid licenses. The libraries are used only during development and are not part of a production deployment.

You need to ensure that WhiteSource Bolt only scans production dependencies.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Run npm install and specify the --production flag.
- B. Modify the WhiteSource Bolt policy and set the action for the licenses used by the development tools to Reassign.
- C. Modify the devDependencies section of the project's Package.json file.
- D. Configure WhiteSource Bolt to scan the node_modules directory only.

115.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You plan to update the Azure DevOps strategy of your company.

You need to identify the following issues as they occur during the company's development process:

- Licensing violations
- Prohibited libraries

Solution: You implement continuous integration.

Does this meet the goal?

- A. Yes
- B. No

116.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You plan to update the Azure DevOps strategy of your company.

You need to identify the following issues as they occur during the company's development process:

- Licensing violations
- Prohibited libraries

Solution: You implement pre-deployment gates.

Does this meet the goal?

- A. Yes
- B. No

117.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You plan to update the Azure DevOps strategy of your company.

You need to identify the following issues as they occur during the company's development process:

- Licensing violations
- Prohibited libraries

Solution: You implement automated security testing.

Does this meet the goal?

- A. Yes
- B. No

118.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You plan to update the Azure DevOps strategy of your company.

You need to identify the following issues as they occur during the company's development process:

Licensing violations

Prohibited libraries

Solution: You implement continuous deployment.

Does this meet the goal?

- A. Yes
- B. No

119.

SIMULATION -

You manage a website that uses an Azure SQL Database named db1 in a resource group named RG1lod11566895.

You need to modify the SQL database to protect against SQL injection.

To complete this task, sign in to the Microsoft Azure portal. >>>>>

Set up Advanced Threat Protection in the Azure portal

1. Sign into the Azure portal.

2. Navigate to the configuration page of the server you want to protect. In the security settings, select Advanced Data Security.

3. On the Advanced Data Security configuration page:

The screenshot shows the Azure portal interface for managing a SQL server. The left sidebar lists various management options like Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Settings, Security, and Advanced Data Security. The 'Advanced Data Security' option is highlighted with a red box. The main content area shows the 'Advanced Data Security' configuration page. At the top, there is a 'Save', 'Discard', and 'Feedback' button. Below that, there is a 'ADVANCED DATA SECURITY' section with an 'ON' switch. The 'VULNERABILITY ASSESSMENT SETTINGS' section includes fields for Subscription and SQL DB Content, and a 'Storage account' section. Under 'Periodic recurring scans', there is another 'ON' switch. The 'Send scan reports to' field is empty. There is also a checkbox for 'Also send email notification to admins and subscription owners'. The 'ADVANCED THREAT PROTECTION SETTINGS' section is highlighted with a red box. It contains a 'Send alerts to' dropdown set to 'Email addresses' with a checkmark, and a checked checkbox for 'Also send email notification to admins and subscription owners'. Below this, there is a 'Advanced Threat Protection types' section with an 'All' option. The entire 'ADVANCED THREAT PROTECTION SETTINGS' section is enclosed in a red box.

4. Enable Advanced Data Security on the server.

Note: Advanced Threat Protection for Azure SQL Database detects anomalous activities indicating unusual and potentially harmful attempts to access or exploit databases. Advanced Threat Protection can identify Potential SQL injection, Access from unusual location or data center, Access from unfamiliar principal or potentially harmful application, and Brute force SQL credentials

Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-account-create>

<https://docs.microsoft.com/en-us/azure/azure-sql/database/threat-detection-configure>

>>>From the Azure portal, open your server or managed instance. Under the Security heading, select Security Center. Select Enable Azure Defender for SQL. <https://docs.microsoft.com/en-us/azure/azure-sql/database/azure-defender-for-sql#enable-azure-defender-for-azure-sql-database-at-the-resource-level>

120.

HOTSPOT -

Your company has an Azure subscription.

The company requires that all resource groups in the subscription have a tag named organization set to a value of Contoso.

You need to implement a policy to meet the tagging requirement.

How should you complete the policy? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
{  
  "policyRule": {  
    "if": {  
      "allOf": [  
        {  
          "field": "type",  
          "equals": "  
            MicrosoftResources/deployments"  
          "  
            MicrosoftResources/subscriptions"  
          "  
            MicrosoftResources/subscriptions/resourceGroups"  
        },  
        {  
          "not": {  
            "field": "tags['organization']",  
            "equals": "Contoso"  
          }  
        }  
      ]  
    },  
    "then": {  
      "effect": "Deny",  
      "details": [  
        {  
          "field": "tags['organization']",  
          "value": "Contoso"  
        }  
      ]  
    }  
  }  
}
```

121.

You need to configure GitHub to use Azure Active Directory (Azure AD) for authentication.

What should you do first?

- A. Create a conditional access policy in Azure AD.
- B. Register GitHub in Azure AD.
- C. Create an Azure Active Directory B2C (Azure AD B2C) tenant.
- D. Modify the Security settings of the GitHub organization.

122.

You have an Azure DevOps project named Project1 and an Azure subscription named Sub1.

You need to prevent releases from being deployed unless the releases comply with the Azure Policy rules assigned to Sub1.

What should you do in the release pipeline of Project1?

- A. Add a deployment gate.
- B. Modify the Deployment queue settings.
- C. Configure a deployment trigger.
- D. Create a pipeline variable.

123.

DRAG DROP -

You have an Azure Kubernetes Service (AKS) implementation that is RBAC-enabled.

You plan to use Azure Container Instances as a hosted development environment to run containers in the AKS implementation.

You need to configure Azure Container Instances as a hosted environment for running the containers in AKS.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions

Answer Area

Run helm init.

Run az aks install-connector.



Create a YAML file.

Run az role assignment create

Run kubectl apply.



Ruaz az role assignment create > create a yaml file > run kubectl apply

124.

You have an Azure DevOps project that contains a build pipeline. The build pipeline uses approximately 50 open source libraries.

You need to ensure that all the open source libraries comply with your company's licensing standards.

Which service should you use?

- A. Ansible
- B. Maven
- C. WhiteSource Bolt
- D. Helm

125.

You are designing the security validation strategy for a project in Azure DevOps.

You need to identify package dependencies that have known security issues and can be resolved by an update.

What should you use?

- A. Octopus Deploy
- B. Jenkins
- C. Gradle
- D. SonarQube **Most Voted**

126.

You administer an Azure DevOps project that includes package feeds.

You need to ensure that developers can unlist and deprecate packages. The solution must use the principle of least privilege.

Which access level should you grant to the developers?

- A. Collaborator
- B. Contributor
- C. Owner

127.

HOTSPOT -

You have a project in Azure DevOps that has three teams as shown in the Teams exhibit. (Click the Teams tab.)

The screenshot shows the 'Project Settings' page for a project named 'Contoso'. The left sidebar has a 'Teams' section with a red box around the 'Teams' link. The main content area is titled 'Teams' and shows three teams: 'Contoso Team', 'DB Team', and 'Web Team'. Each team has a status indicator (green for Contoso Team, yellow for DB Team, orange for Web Team), a name, a description, and the number of members (1 for Contoso Team, 0 for DB Team and Web Team). There is a 'New Team' button at the top right of the table.

Name	Description	Members
Contoso Team	The default project team.	1
DB Team	Parts Unlimited Web Team	0
Web Team	PUL DB Team	0

You create a new dashboard named Dash1.

You configure the dashboard permissions for the Contoso project as shown in the Permissions exhibit. (Click the Permissions tab.)

The screenshot shows the 'Project Settings' page for the 'Contoso' team. On the left, there's a sidebar with icons for General, Overview, Teams, Permissions, Notifications, Service hooks, and Dashboards. The 'Dashboards' icon is highlighted with a red box. The main area is titled 'Dashboards' with the sub-instruction: 'Only team admins can set a team's permissions for all dashboards. The permissions set here affect all dashboards for this team.' Below this, there are three toggle switches: 'Create dashboards' (disabled), 'Edit dashboards' (disabled), and 'Delete dashboards' (disabled). A green 'SL' badge is visible in the top right corner.

All other permissions have the default values set.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
Web Team can delete Dash1.	<input type="radio"/>	<input type="radio"/>
Contoso Team can view Dash1.	<input type="radio"/>	<input type="radio"/>
Project administrators can create new dashboards.	<input type="radio"/>	<input type="radio"/>

Box 1: **No** - According to the configuration in the second screenshot, Delete dashboards permission is disabled. Box 2: **Yes** - Everyone can view a dashboard. Box 3: **Yes** - Only project administrators can manage dashboards.

128.

Your company is concerned that when developers introduce open source libraries, it creates licensing compliance issues.

You need to add an automated process to the build pipeline to detect when common open source libraries are added to the code base.

What should you use?

- A. Microsoft Visual SourceSafe
- B. Code Style
- C. Black Duck
- D. Jenkins

129.

DRAG DROP -

You are implementing a package management solution for a Node.js application by using Azure Artifacts.

You need to configure the development environment to connect to the package repository. The solution must minimize the likelihood that credentials will be leaked.

Which file should you use to configure each connection? To answer, drag the appropriate files to the correct connections. Each file may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Files	Answer Area
The .npmrc file in the project	Feed registry information: <input type="text" value="The .npmrc file in the project"/>
The .npmrc file in the user's home folder	Credentials: <input type="text" value="The .npmrc file in the user's home folder"/>
The Package.json file in the project	
The Project.json file in the project	

Select and Place:

130.

HOTSPOT -

You have an Azure DevOps project that contains a build pipeline. The build pipeline uses approximately 50 open source libraries.

You need to ensure that the project can be scanned for known security vulnerabilities in the open source libraries.

What should you do? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Object to create:

A build task
A deployment task
An artifacts repository

Service to use:

WhiteSource Bolt
Bamboo
CMake
Chef

131.

You have an Azure DevOps project that contains a build pipeline. The build pipeline uses approximately 50 open source libraries.

You need to ensure that all the open source libraries comply with your company's licensing standards.

Which service should you use?

- A. NuGet
- B. Maven
- C. Black Duck
- D. Helm

132.

DRAG DROP -

You plan to use Azure Kubernetes Service (AKS) to host containers deployed from images hosted in a Docker Trusted Registry.

You need to recommend a solution for provisioning and connecting to AKS. The solution must ensure that AKS is RBAC-enabled and uses a custom service principal.

Which three commands should you recommend be run in sequence? To answer, move the appropriate commands from the list of commands to the answer area and arrange them in the correct order.

Select and Place:

Commands

Answer Area

az role assignment create

az aks get-credentials

az aks create

az ad sp create-for-rbac

kubectl create



az ad sp create-for-rbac - create the service principle 2. az aks create - create the aks with the service principle 3. az role assignment - delegate access to other resources <https://docs.microsoft.com/en-us/azure/aks/kubernetes-service-principal>

133.

Your company develops an app for iOS. All users of the app have devices that are members of a private distribution group in Microsoft Visual Studio App Center.

You plan to distribute a new release of the app.

You need to identify which certificate file you require to distribute the new release from App Center.

Which file type should you upload to App Center?

- A. .cer
- B. .pfx
- C. .p12
- D. .pvk

134.

SIMULATION -

You need to prepare a network security group (NSG) named az400-9940427-nsg1 to host an Azure DevOps pipeline agent. The solution must allow only the required outbound port for Azure DevOps and deny all other inbound and outbound access to the Internet.

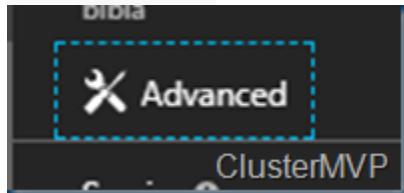
To complete this task, sign in to the Microsoft Azure portal.>>>>>

Open Microsoft Azure Portal and Log into your Azure account.

2. Select network security group (NSG) named az400-9940427-nsg1

3. Select Settings, Outbound security rules, and click Add

4. Click Advanced



5. Change the following settings:

⇒ Destination Port range: 8080

⇒ Protocol: TCP

⇒ Action: Allow

Note: By default, Azure DevOps Server uses TCP Port 8080.

Reference:

<https://robertsmmit.wordpress.com/2017/09/11/step-by-step-azure-network-security-groups-nsq-security-center-azure-nsq-network/> <https://docs.microsoft.com/en-us/azure/devops/server/architecture/required-ports?view=azure-devops>>>>>>>>>

The goal is installing an agent on your cloud VM (could be on prem as well), you need to open only and only port 443 outbound. People are mistaken because they think the goal is deploying an Azure DevOps Server.

Here is what Azure DevOps Server is: Developers can work in the cloud using Azure DevOps Services or on-premises using Azure DevOps Server. Azure DevOps Server was formerly named Visual Studio Team Foundation Server (TFS). <https://docs.microsoft.com/en-us/azure/devops/user-guide/what-is-azure-devops?toc=%2Fazure%2Fdevops%2Fserver%2Ftoc.json&bc=%2Fazure%2Fdevops%2Fserver%2Fbreadcrumb%2Ftoc.json&view=azure-devops>

135.

DRAG DROP -

You have a project in Azure DevOps named Project1 that contains two Azure DevOps pipelines named Pipeline1 and Pipeline2.

You need to ensure that Pipeline1 can deploy code successfully to an Azure web app named webapp1. The solution must ensure that Pipeline2 does not have permission to webapp1.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions

Answer Area

Create a service principal in Azure Active Directory.



In Project1, create a service connection.

In Pipeline1, authorize the service connection.



Create a system-assigned managed identity in Azure Active Directory.

In Project1, configure permissions.

In Pipeline1, create a variable.

create a service principle 2- in project 1 create a service connection (ARM / Manual) and provide the service principle details created in step 1 3- in pipeline 1, authorize the service connection. this way only pipeline 1 will get access to the webapp and pipeline2 not. also, project permissions id for users and groups not for pipelines.

136.

DRAG DROP -

You need to increase the security of your team's development process.

Which type of security tool should you recommend for each stage of the development process? To answer, drag the appropriate security tools to the correct stages. Each security tool may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Security Tools Answer Area

Penetration testing

Pull request:

Static code analysis

Continuous integration:

Threat modeling

Continuous delivery:

Static code Static code Penetration <https://docs.microsoft.com/en-us/azure/devops/migrate/security-validation-cicd-pipeline?view=azure-devops#ide--pull-request>

137.

Your company is concerned that when developers introduce open source libraries, it creates licensing compliance issues.

You need to add an automated process to the build pipeline to detect when common open source libraries are added to the code base.

What should you use?

- A. OWASP ZAP
- B. Jenkins
- C. Code Style
- D. WhiteSource Bolt **Most Voted**

138.

You plan to use a NuGet package in a project in Azure DevOps. The NuGet package is in a feed that requires authentication.

You need to ensure that the project can restore the NuGet package automatically.

What should the project use to automate the authentication?

- A. an Azure Automation account
- B. an Azure Artifacts Credential Provider
- C. an Azure Active Directory (Azure AD) account that has multi-factor authentication (MFA) enabled
- D. an Azure Active Directory (Azure AD) service principal

139.

You use Azure Pipelines to manage project builds and deployments.

You plan to use Azure Pipelines for Microsoft Teams to notify the legal team when a new build is ready for release.

You need to configure the Organization Settings in Azure DevOps to support Azure Pipelines for Microsoft Teams.

What should you turn on?

- A. Third-party application access via OAuth
- B. Azure Active Directory Conditional Access Policy Validation
- C. Alternate authentication credentials
- D. SSH authentication

140.

You have an existing project in Azure DevOps.

You plan to integrate GitHub as the repository for the project.

You need to ensure that Azure Pipelines runs under the Azure Pipelines identity.

Which authentication mechanism should you use?

- A. personal access token (PAT)
- B. GitHub App
- C. Azure Active Directory (Azure AD)
- D. OAuth

141.

You use Azure Artifacts to host NuGet packages that you create.

You need to make one of the packages available to anonymous users outside your organization. The solution must minimize the number of publication points.

What should you do?

- A. Change the feed URL of the package
- B. Create a new feed for the package
- C. Promote the package to a release view.
- D. Publish the package to a public NuGet repository.

142.

You are designing the development process for your company.

You need to recommend a solution for continuous inspection of the company's code base to locate common code patterns that are known to be problematic.

What should you include in the recommendation?

- A. Microsoft Visual Studio test plans
- B. Gradle wrapper scripts
- C. SonarCloud analysis
- D. the JavaScript task runner

143.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

The lead developer at your company reports that adding new application features takes longer than expected due to a large accumulated technical debt.

You need to recommend changes to reduce the accumulated technical debt.

Solution: You recommend reducing the code coupling and the dependency cycles?

Does this meet the goal?

- A. Yes
- B. No

144.

Your company uses Azure DevOps for the build pipelines and deployment pipelines of Java-based projects.

You need to recommend a strategy for managing technical debt.

Which two actions should you include in the recommendation? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Configure post-deployment approvals in the deployment pipeline.
- B. Configure pre-deployment approvals in the deployment pipeline.

- C. Integrate Azure DevOps and SonarQube.
- D. Integrate Azure DevOps and Azure DevTest Labs.

145.

Your company is building a new solution in Java.

The company currently uses a SonarQube server to analyze the code of .NET solutions.

You need to analyze and monitor the code quality of the Java solution.

Which task types should you add to the build pipeline?

- A. Gradle
- B. CocoaPods
- C. Grunt
- D. Gulp

SonarQube is a set of static analyzers that can be used to identify areas of improvement in your code. It allows you to analyze the technical debt in your project and keep track of it in the future. With Maven and Gradle build tasks, you can run SonarQube analysis with minimal setup in a new or existing Azure DevOps Services build task.

Prepare Analysis Configuration task, to configure all the required settings before executing the build.

This task is mandatory.

In case of .NET solutions or Java projects, it helps to integrate seamlessly with MSBuild, Maven and Gradle tasks.

Incorrect Answers:

B: CocoaPods is the dependency manager for Swift and Objective-C Cocoa projects.

Note: There are several versions of this question in the exam. The question can have three correct answers:

MSBuild -

- Maven
- Gradle

The question can also have different incorrect options, including:

- Chef
- Octopus
- xCODE

Reference:

<https://docs3.sonarqube.org/latest/analysis/scan/sonarscanner-for-azure-devops/>

<https://docs.microsoft.com/en-us/azure/devops/java/sonarqube?view=azure-devops>

146.

HOTSPOT -

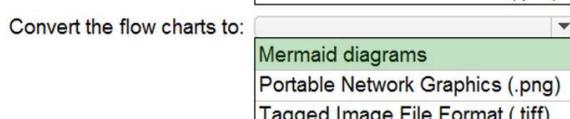
Your company uses GitHub for source control. GitHub repositories store source code and store process documentation. The process documentation is saved as Microsoft Word documents that contain simple flow charts stored as .bmp files.

You need to optimize the integration and versioning of the process documentation and the flow charts. The solution must meet the following requirements:

- Store documents as plain text.
- Minimize the number of files that must be maintained.
- Simplify the modification, merging, and reuse of flow charts.
- Simplify the modification, merging, and reuse of documents.

Hot Area:

Answer Area



147.

Your company is building a new solution in Java.

The company currently uses a SonarQube server to analyze the code of .NET solutions.

You need to analyze and monitor the code quality of the Java solution.

Which task types should you add to the build pipeline?

- A. Grunt
- B. Octopus
- C. Maven
- D. Gulp

148.

DRAG DROP -

You are developing a full Microsoft .NET Framework solution that includes unit tests.

You need to configure SonarQube to perform a code quality validation of the C# code as part of the build pipelines.

Which four tasks should you perform in sequence? To answer, move the appropriate tasks from the list of tasks to the answer area and arrange them in the correct order.

Select and Place:

Actions Commands Cmdlets Statements

- Run Code Analysis
- Visual Studio Test
- Publish Build Artifacts
- Visual Studio Build
- Prepare Analysis Configuration

Answer Area

- Prepare Analysis Configuration
- Visual Studio Build
- Visual Studio Test
- Run Code Analysis

149.

Your company uses Azure DevOps for the build pipelines and deployment pipelines of Java-based projects.

You need to recommend a strategy for managing technical debt.

Which action should you include in the recommendation?

- A. Configure post-deployment approvals in the deployment pipeline.
- B. Integrate Azure DevOps and SonarQube.
- C. Integrate Azure DevOps and Azure DevTest Labs.

150.

DRAG DROP -

You need to find and isolate shared code. The shared code will be maintained in a series of packages.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions

- Group the related components.
- Assign ownership to each component group.
- Create a dependency graph for the application.
- Identify the most common language used.
- Rewrite the components in the most common language.

Answer Area

- Create a dependency graph for the application.
- Group the related components.
- Assign ownership to each component group.

151.

DRAG DROP -

You are creating a NuGet package.

You plan to distribute the package to your development team privately.

You need to share the package and test that the package can be consumed.

Which four actions should you perform in sequence? To answer, move the appropriate actions from the list

of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions	Answer Area
Create a new Azure Artifacts feed.	
Configure a self-hosted agent.	
Publish a package.	↶ ↷
Install a package.	
Connect to an Azure Artifacts feed.	

Create, Connect, Publish, Install => will be the right order no matter if you understand "connect to publish" or "connect to consume"

152.

During a code review, you discover many quality issues. Many modules contain unused variables and empty catch blocks.

You need to recommend a solution to improve the quality of the code.

What should you recommend?

- A. In a Grunt build task, select Enabled from Control Options.
- B. In a Maven build task, select Run PMD.
- C. In a Xcode build task, select Use xcpretty from Advanced.
- D. In a Gradle build task, select Run Checkstyle.

153.

Your development team is building a new web solution by using the Microsoft Visual Studio integrated development environment (IDE).

You need to make a custom package available to all the developers. The package must be managed centrally, and the latest version must be available for consumption in Visual Studio automatically.

Which three actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Publish the package to a feed.
- B. Create a new feed in Azure Artifacts.
- C. Upload a package to a Git repository.
- D. Add the package URL to the Environment settings in Visual Studio.
- E. Add the package URL to the NuGet Package Manager settings in Visual Studio.
- F. Create a Git repository in Azure Repos.

154.

You use GitHub for source control.

A file that contains sensitive data is committed accidentally to the Git repository of a project.

You need to delete the file and its history from the repository.

Which two tools can you use? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. the git filter-branch command
- B. BFG Repo-Cleaner
- C. the git rebase command
- D. GitHub Desktop

155.

Your company uses GitHub for source control. The company has a team that performs code reviews.

You need to automate the assignment of the code reviews. The solution must meet the following requirements:

☞ Prioritize the assignment of code reviews to team members who have the fewest outstanding assignments.

☞ Ensure that each team member performs an equal number of code reviews in any 30-day period.

☞ Prevent the assignment of code reviews to the team leader.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Clear Never assign certain team members.
- B. Select If assigning team members, don't notify the entire team.
- C. Select Never assign certain team members. **Most Voted**
- D. Set Routing algorithm to Round robin.
- E. Set Routing algorithm to Load balance. **Most Voted**

156.

You have a GitHub repository.

You create a new repository in Azure DevOps.

You need to recommend a procedure to clone the repository from GitHub to Azure DevOps.

What should you recommend?

- A. Create a pull request.
- B. Create a webhook.
- C. Create a service connection for GitHub.
- D. From Import a Git repository, click Import.
- E. Create a personal access token in Azure DevOps.

157.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

The lead developer at your company reports that adding new application features takes longer than expected due to a large accumulated technical debt.

You need to recommend changes to reduce the accumulated technical debt.

Solution: You recommend increasing the code duplication.

Does this meet the goal?

- A. Yes
- B. No **Most Voted**

158.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

The lead developer at your company reports that adding new application features takes longer than expected due to a large accumulated technical debt.

You need to recommend changes to reduce the accumulated technical debt.

Solution: You recommend increasing the test coverage.

Does this meet the goal?

- A. Yes
- B. No

159.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

The lead developer at your company reports that adding new application features takes longer than expected due to a large accumulated technical debt.

You need to recommend changes to reduce the accumulated technical debt.

Solution: You recommend reducing the code complexity.

Does this meet the goal?

- A. Yes **Most Voted**
- B. No

160.

During a code review, you discover quality issues in a Java application.

You need to recommend a solution to detect quality issues including unused variables and empty catch blocks.

What should you recommend?

- A. In a Maven build task, select Run PMD.
- B. In an Xcode build task, select Use xcpretty from Advanced.
- C. In a Gulp build task, specify a custom condition expression.
- D. In a Grunt build task, select Enabled from Control Options.

161.

Your company plans to use an agile approach to software development.

You need to recommend an application to provide communication between members of the development team who work in locations around the world. The applications must meet the following requirements:

- ☞ Provide the ability to isolate the members of different project teams into separate communication channels and to keep a history of the chats within those channels.
- ☞ Be available on Windows 10, Mac OS, iOS, and Android operating systems.
- ☞ Provide the ability to add external contractors and suppliers to projects.
- ☞ Integrate directly with Azure DevOps.

What should you recommend?

- A. Skype for Business
- B. Bamboo
- C. Octopus
- D. Slack **Most Voted**

162.

Your company has 60 developers who are assigned to four teams. Each team has 15 members.

The company uses an agile development methodology.

You need to structure the work of the development teams so that each team owns their respective work while working together to reach a common goal.

Which parts of the taxonomy should you enable the team to perform autonomously?

- A. Features and Tasks
- B. Initiatives and Epics
- C. Epics and Features
- D. Stories and Tasks

163.

Your company creates a new Azure DevOps team.

You plan to use Azure DevOps for sprint planning.

You need to visualize the flow of your work by using an agile methodology.

Which Azure DevOps component should you use?

- A. Kanban boards **Most Voted**
- B. sprint planning
- C. delivery plans
- D. portfolio backlogs

164.

Your company implements an Agile development methodology.

You plan to implement retrospectives at the end of each sprint.

Which three questions should you include? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Who performed well?
- B. Who should have performed better?
- C. What could have gone better? **Most Voted**
- D. What went well? **Most Voted**
- E. What should we try next? **Most Voted**

165.

Your team uses an agile development approach.

You need to recommend a branching strategy for the team's Git repository. The strategy must meet the following requirements.

- ⇒ Provide the ability to work on multiple independent tasks in parallel.
- ⇒ Ensure that checked-in code remains in a releasable state always.
- ⇒ Ensure that new features can be abandoned at any time.
- ⇒ Encourage experimentation.

What should you recommend?

- A. a single long-running branch without forking
- B. multiple long-running branches
- C. a single fork per team member
- D. a single long-running branch with multiple short-lived feature branches

166.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You integrate a cloud-hosted Jenkins server and a new Azure DevOps deployment.

You need Azure DevOps to send a notification to Jenkins when a developer commits changes to a branch in Azure Repos.

Solution: You create a service hook subscription that uses the build completed event.

Does this meet the goal?

- A. Yes
- B. No

167.

You have a project in Azure DevOps that has a release pipeline.

You need to integrate work item tracking and an Agile project management system to meet the following requirements:

- ⇒ Ensure that developers can track whether their commits are deployed to production.
- ⇒ Report the deployment status.
- ⇒ Minimize integration effort.

Which system should you use?

- A. Asana
- B. Basecamp
- C. Trello
- D. Jira

168.

You plan to onboard 10 new developers.

You need to recommend a development environment that meets the following requirements:

- ⇒ Integrates with GitHub
- ⇒ Provides integrated debugging tools
- ⇒ Supports remote workers and hot-desking environments
- ⇒ Supports developers who use browsers, tablets, and Chromebooks

What should you recommend?

- A. VS Code
- B. Xamarin Studio
- C. MonoDevelop
- D. Github Studio Codespaces

169.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not

appear in the review screen.

You integrate a cloud-hosted Jenkins server and a new Azure DevOps deployment.

You need Azure DevOps to send a notification to Jenkins when a developer commits changes to a branch in Azure Repos.

Solution: You create an email subscription to an Azure DevOps notification.

Does this meet the goal?

- A. Yes
- B. No

170.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You integrate a cloud-hosted Jenkins server and a new Azure DevOps deployment.

You need Azure DevOps to send a notification to Jenkins when a developer commits changes to a branch in Azure Repos.

Solution: You create a service hook subscription that uses the code pushed event.

Does this meet the goal?

- A. Yes
- B. No

171.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You integrate a cloud-hosted Jenkins server and a new Azure DevOps deployment.

You need Azure DevOps to send a notification to Jenkins when a developer commits changes to a branch in Azure Repos.

Solution: You add a trigger to the build pipeline.

Does this meet the goal?

- A. Yes
- B. No

172.

You plan to create in Azure DevOps. Multiple developers will work on the project. The developers will work offline frequently and will require access to the full project history while they are offline.

Which version control solution should you use?

- A. Team Foundation Version Control
- B. Git
- C. TortoiseSVN
- D. Subversion

173.

You plan to onboard 10 new developers.

You need to recommend a development environment that meets the following requirements:

☞ Integrates with GitHub

☞ Provides integrated debugging tools

☞ Supports remote workers and hot-desking environments

☞ Supports developers who use browsers, tablets, and Chromebooks

What should you recommend?

- A. VS Code
- B. Xamarin Studio
- C. MonoDevelop
- D. Visual Studio Codespaces

174.

You have a build pipeline in Azure Pipelines.

You create a Slack App Integration.

You need to send build notifications to a Slack channel named #Development.

What should you do first?

- A. Create a project-level notification.
- B. Configure a service connection.
- C. Create a global notification.
- D. Creates a service hook subscription.

175.

You have an Azure DevOps organization named Contoso and an Azure subscription.

You use Azure DevOps to build and deploy a web app named App1. Azure Monitor is configured to generate an email notification in response to alerts generated whenever App1 generates a server-side error.

You need to receive notifications in Microsoft Teams whenever an Azure Monitor alert is generated.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Create an Azure Monitor workbook.
- B. Create an Azure logic app that has an HTTP request trigger. **Most Voted**
- C. Create an Azure logic app that has an Azure DevOps trigger.
- D. Modify an action group in Azure Monitor. **Most Voted**
- E. Modify the Diagnostics settings in Azure Monitor.

176.

HOTSPOT -

Your company uses Azure DevOps for Git source control.

You have a project in Azure DevOps named Contoso App that contains the following repositories:

☞ <https://dev.azure.com/contoso/contoso-app/core-api>
☞ <https://dev.azure.com/contoso/contoso-app/core-spa>
☞ <https://dev.azure.com/contoso/contoso-app/core-db>

You need to ensure that developers receive Slack notifications when there are pull requests created for Contoso App.

What should you run in Slack? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area



177.

You have an Azure DevOps organization that contains a project named Project1.

You need to create a published wiki in Project1.

What should you do first?

- A. Modify the Storage settings of Project1.
- B. In Project1, create an Azure DevOps pipeline.
- C. In Project1, create an Azure DevOps repository.
- D. Modify the Team configuration settings of Project1.

178.

Your company plans to use an agile approach to software development.

You need to recommend an application to provide communication between members of the development team who work in locations around the world. The applications must meet the following requirements:

☞ Provide the ability to isolate the members of different project teams into separate communication channels and to keep a history of the chats within those channels.

□ Be available on Windows 10, Mac OS, iOS, and Android operating systems.

□ Provide the ability to add external contractors and suppliers to projects.

□ Integrate directly with Azure DevOps.

What should you recommend?

- A. Microsoft Project
- B. Bamboo
- C. Microsoft Lync
- D. Microsoft Teams

179.

You are developing a multi-tier application. The application will use Azure App Service web apps as the front end and an Azure SQL database as the back end.

The application will use Azure functions to write some data to Azure Storage.

You need to send the Azure DevOps team an email message when the front end fails to return a status code of 200.

Which feature should you use?

- A. Service Map in Azure Log Analytics
- B. availability tests in Azure Application Insights
- C. Profiler in Azure Application Insights
- D. Application Map in Azure Application Insights

180.

You have a project in Azure DevOps named Project1. Project1 contains a published wiki.

You need to change the order of pages in the navigation pane of the published wiki in the Azure DevOps portal.

What should you do?

- A. At the root of the wiki, create a file named .order that defines the page hierarchy.
- B. At the root of the wiki, create a file named wiki.md that defines the page hierarchy.
- C. Rename the pages in the navigation pane.
- D. Drag and drop the pages in the navigation pane.

181.

DRAG DROP -

You have a GitHub organization named org1 and an Azure tenant named Tenant1.

You need to enable single sign-on (SSO) in Azure Active Directory (Azure AD) for the users in org1.

Which URIs should you use for the SAML configuration in Azure AD? To answer, drag the appropriate URIs to the correct settings. Each URI may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

URIs	Answer Area
https://github.com/orgs/org1	Identifier (Entity ID): https://github.com/orgs/org1
https://github.com/orgs/org1/sso	Reply URL (Assertion Consumer Service URL): https://github.com/orgs/org1/saml/consume
https://login.microsoftonline.com/tenant1	Sign on URL: https://github.com/orgs/org1/sso
https://login.microsoftonline.com/tenant1.com	

On the Basic SAML Configuration section, enter the values for the following fields: a. In the Identifier (Entity ID) text box, type a URL using the following pattern: <https://github.com/orgs/<Organization ID>> b. In the Reply URL text box, type a URL using the following pattern: <https://github.com/orgs/<Organization ID>/saml/consume> c. In the Sign on URL text box, type a URL using the following pattern: <https://github.com/orgs/<Organization ID>/sso>

182.

HOTSPOT -

You plan to use Desired State Configuration (DSC) to maintain the configuration state of virtual machines that run Windows Server.

You need to perform the following:

□ Install Internet Information Services (IIS) on the virtual machines.

□ Update the default home page of the IIS web server.

How should you configure the DSC configuration file? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
Configuration WebServerConfig {
    Import-DscResource -ModuleName PsDesiredStateConfiguration
    Node 'localhost' {
        Service WebServer {
            Ensure = "Present"
            Name = "Web-Server"
        }

        DefaultHomePage {
            Ensure = 'Present'
            SourcePath = '\\server1\DS/Resources\web\index.htm'
            DestinationPath = 'c:\inetpub\wwwroot'
        }
    }
}
```

183.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You need to recommend an integration strategy for the build process of a Java application. The solution must meet the following requirements:

□ The build must access an on-premises dependency management system.

The build outputs must be stored as Server artifacts in Azure DevOps.

□ The source code must be stored in a Git repository in Azure DevOps.

Solution: Configure the build pipeline to use a Microsoft-hosted agent pool running the Windows Server 2019 with Visual Studio 2019 image. Include the Java Tool

Installer task in the build pipeline.

Does this meet the goal?

- A. Yes
- B. No **Most Voted**

184.

You have a project in Azure DevOps.

You create the following YAML template named Template1.yml.

steps:

- script: npm install
- script: yarn install
- script: npm run compile

You create the following pipeline named File1.yml.

parameters:

usersteps:

- task: MyTask@1

- script: echo Done

You need to ensure that Template1.yaml runs before File1.yml.

How should you update File1.yml?

- A. parameters: usersteps: extends: template: template1.yaml - task: MyTask@1 - script: echo Done
- B. template: template1.yaml parameters: usersteps: - task: MyTask@1 - script: echo Done
- C. extends: template: templatel.yaml parameters: usersteps: - task: MyTask@1 - script: echo Done
- D. parameters: usersteps: - template: templatel.yaml - task: MyTask@1 - script: echo Done

185.

You have an Azure solution that contains a build pipeline in Azure Pipelines.

You experience intermittent delays before the build pipeline starts.

You need to reduce the time it takes to start the build pipeline.

What should you do?

- A. Enable self-hosted build agents.
- B. Create a new agent pool.
- C. Split the build pipeline into multiple stages.
- D. Purchase an additional parallel job.

186.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You need to recommend an integration strategy for the build process of a Java application. The solution must meet the following requirements:

- ⇒ The build must access an on-premises dependency management system.
- ⇒ The build outputs must be stored as Server artifacts in Azure DevOps.
- ⇒ The source code must be stored in a Git repository in Azure DevOps.

Solution: Configure the build pipeline to use a Microsoft-hosted agent pool running a Linux image. Include the Java Tool Installer task in the build pipeline.

Does this meet the goal?

- A. Yes
- B. No **Most Voted**

187.

You store source code in a Git repository in Azure Repos. You use a third-party continuous integration (CI) tool to control builds.

What will Azure DevOps use to authenticate with the tool?

- A. certificate authentication
- B. a personal access token (PAT)
- C. a Shared Access Signature (SAS) token
- D. NTLM authentication

188.

DRAG DROP -

You are configuring Azure Pipelines for three projects in Azure DevOps as shown in the following table.

Project name	Project Details
Project1	The project team provides preconfigured YAML files that it wants to use to manage future pipeline configuration changes.
Project2	The sensitivity of the project requires that the source code be hosted on the managed Windows server on your company's network.
Project3	The project team requires a centralized version control system to ensure that developers work with the most recent version.

Which version control system should you recommend for each project? To answer, drag the appropriate version control systems to the correct projects. Each version control system may be used once, more than

once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Version Control Systems	Answer Area
Assembla Subversion	Project1: [Redacted]
Bitbucket Cloud	Project2: [Redacted]
Git in Azure Repos	Project3: [Redacted]
GitHub Enterprise	

Git in Azure DevOps 2 -> GitHub Enterprise 3 -> Subversion

189.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You need to recommend an integration strategy for the build process of a Java application. The solution must meet the following requirements:

- ☞ The builds must access an on-premises dependency management system.
- ☞ The build outputs must be stored as Server artifacts in Azure DevOps.
- ☞ The source code must be stored in a Git repository in Azure DevOps.

Solution: Configure an Octopus Tentacle on an on-premises machine. Use the Package Application task in the build pipeline.

Does this meet the goal?

- A. Yes
- B. No **Most Voted**

190.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You need to recommend an integration strategy for the build process of a Java application. The solution must meet the following requirements:

- ☞ The builds must access an on-premises dependency management system.
- ☞ The build outputs must be stored as Server artifacts in Azure DevOps.

The source code must be stored in a Git repository in Azure DevOps.

Solution: Install and configure a self-hosted build agent on an on-premises machine. Configure the build pipeline to use the Default agent pool. Include the Java Tool Installer task in the build pipeline.

Does this meet the goal?

- A. Yes
- B. No

191.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You need to recommend an integration strategy for the build process of a Java application. The solution must meet the following requirements:

- ☞ The builds must access an on-premises dependency management system.

The build outputs must be stored as Server artifacts in Azure DevOps.

The source code must be stored in a Git repository in Azure DevOps.

Solution: Configure the build pipeline to use a Hosted VS 2019 agent pool. Include the Java Tool Installer task in the build pipeline.

Does this meet the goal?

- A. Yes
- B. No

192.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You need to recommend an integration strategy for the build process of a Java application. The solution must meet the following requirements:

The builds must access an on-premises dependency management system.

The build outputs must be stored as Server artifacts in Azure DevOps.

The source code must be stored in a Git repository in Azure DevOps.

Solution: Configure the build pipeline to use a Hosted Ubuntu agent pool. Include the Java Tool Installer task in the build pipeline.

Does this meet the goal?

- A. Yes
- B. No

193.

Your company uses a Git repository in Azure Repos to manage the source code of a web application. The master branch is protected from direct updates.

Developers work on new features in the topic branches.

Because of the high volume of requested features, it is difficult to follow the history of the changes to the master branch.

You need to enforce a pull request merge strategy. The strategy must meet the following requirements:

Consolidate commit histories.

Merge the changes into a single commit.

Which merge strategy should you use in the branch policy?

- A. squash merge
- B. fast-forward merge
- C. Git fetch
- D. no-fast-forward merge

Squash merging is a merge option that allows you to condense the Git history of topic branches when you complete a pull request. Instead of each commit on the topic branch being added to the history of the default branch, a squash merge takes all the file changes and adds them to a single new commit on the default branch.

A simple way to think about this is that squash merge gives you just the file changes, and a regular merge gives you the file changes and the commit history.

Note: Squash merging keeps your default branch histories clean and easy to follow without demanding any workflow changes on your team. Contributors to the topic branch work how they want in the topic branch, and the default branches keep a linear history through the use of squash merges. The commit history of a master branch updated with squash merges will have one commit for each merged branch. You can step through this history commit by commit to find out exactly when work was done.

Reference:

<https://docs.microsoft.com/en-us/azure/devops/repos/git/merging-with-squash>

194.

Your company uses cloud-hosted Jenkins for builds.

You need to ensure that Jenkins can retrieve source code from Azure Repos.

Which three actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Create a webhook in Jenkins.
- B. Add the Team Foundation Server (TFS) plug-in to Jenkins. **Most Voted**
- C. Add a personal access token to your Jenkins account. **Most Voted**
- D. Create a personal access token (PAT) in your Azure DevOps account. **Most Voted**
- E. Create a service hook in Azure DevOps.

195.

DRAG DROP -

Your company has four projects. The version control requirements for each project are shown in the following table.

Project	Requirement
Project 1	Project leads must be able to restrict access to individual files and folders in the repository.
Project 2	The version control system must enforce the following rules on the server before merging any changes to the main branch: <ul style="list-style-type: none"> • Changes must be reviewed by at least two project members. • Changes must be associated by at least one work item
Project 3	The project members must be able to work in Azure Repos directly from Xcode.
Project 4	The release branch must only be viewable or editable by the project leads.

You plan to use Azure Repos for all the projects.

Which version control system should you use for each project? To answer, drag the appropriate version control systems to the correct projects. Each version control system may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Version Control Systems	Answer Area
Git	Project 1: <input type="text"/>
Perforce	Project 2: <input type="text"/>
Subversion	Project 3: <input type="text"/>
Team Foundation Version Control	Project 4: <input type="text"/>

TFVS Git Git TFVS

196.

You are automating the build process for a Java-based application by using Azure DevOps.

You need to add code coverage testing and publish the outcomes to the pipeline.

What should you use?

- A. Bullseye Coverage
- B. JUnit
- C. JaCoCo
- D. MSTest

197.

HOTSPOT -

Your company uses Azure DevOps to deploy infrastructures to Azure.

Pipelines are developed by using YAML.

You execute a pipeline and receive the results in the web portal for Azure Pipelines as shown in the following exhibit.

The screenshot shows the Azure DevOps interface. On the left, there's a sidebar with 'Fast Track' selected. Under 'Pipelines', 'Pipelines' is also selected. The main area shows a pipeline named 'initial_build'. The pipeline has three stages: 'build vm', 'deploy_to_dev', and 'deploy_to_uat'. The 'build vm' stage contains several steps: 'initialize build' (which itself has sub-steps like 'Initialize job', 'Checkout', 'CmdLine', 'Post-job: Ccheckout', and 'Finalize Job'), 'deploy_to_dev' (with step 'deploy_to_dev_server'), and 'deploy_to_uat' (with step 'deploy_to_uat_server'). The 'Finalize build' stage contains the step 'Report build status'.

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

The pipeline contains	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="padding: 2px;">one stage</td></tr> <tr><td style="padding: 2px;">two stages</td></tr> <tr><td style="padding: 2px;">three stages</td></tr> <tr><td style="padding: 2px; background-color: #90EE90;">four stages</td></tr> <tr><td style="padding: 2px;">five stages</td></tr> </table>	one stage	two stages	three stages	four stages	five stages
one stage						
two stages						
three stages						
four stages						
five stages						
Build_vm contains	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="padding: 2px; background-color: #90EE90;">one job</td></tr> <tr><td style="padding: 2px;">two jobs</td></tr> <tr><td style="padding: 2px;">three jobs</td></tr> <tr><td style="padding: 2px;">four jobs</td></tr> <tr><td style="padding: 2px;">five jobs</td></tr> </table>	one job	two jobs	three jobs	four jobs	five jobs
one job						
two jobs						
three jobs						
four jobs						
five jobs						

<https://dev.to/rajikaimal/azure-devops-ci-cd-yaml-pipeline-4glj> build vm : It has just one job, Initialize Build
2- deploy_to_dev 3-deploy_to_uat 4-Finalize Build

198.

DRAG DROP -

You are configuring Azure DevOps build pipelines.

You plan to use hosted build agents.

Which build agent pool should you use to compile each application type? To answer, drag the appropriate build agent pools to the correct application types. Each build agent pool may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Build Agent Pools

Answer Area

- Hosted Windows Container
- Hosted Linux
- Hosted macOS
- Hosted
- Default

An application that runs on iOS:

Hosted macOS

An Internet Information Services (IIS) web application that runs in Docker:

Hosted

199.

You are automating the build process for a Java-based application by using Azure DevOps.

You need to add code coverage testing and publish the outcomes to the pipeline.

What should you use?

- A. Cobertura
- B. Bullseye Coverage
- C. MSTest
- D. Coverlet

200.

You have an existing build pipeline in Azure Pipelines.

You need to use incremental builds without purging the environment between pipeline executions.

What should you use?

- A. a self-hosted agent
- B. Microsoft-hosted parallel jobs
- C. a File Transform task

201.

HOTSPOT -

You are designing YAML-based Azure pipelines for the apps shown in the following table.

Name	Platform	Release requirements
App1	Azure virtual machine	Replace a fixed set of existing instances of the previous version of App1 with instances of the new version of the app in each iteration.
App2	Azure Kubernetes Service (AKS) cluster	Roll out a limited deployment of the new version of App2 to validate the functionality of the app. Once testing is successful, expand the rollout.

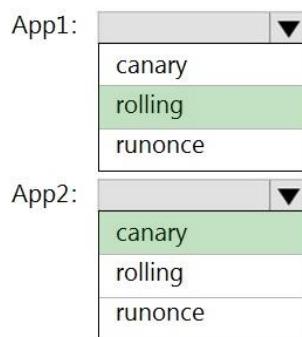
You need to configure the YAML strategy value for each app. The solution must minimize app downtime.

Which value should you configure for each app? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area



202.

You have a private project in Azure DevOps.

You need to ensure that a project manager can create custom work item queries to report on the project's progress.

The solution must use the principle of least privilege.

To which security group should you add the project manager?

- A. Reader
- B. Project Collection Administrators
- C. Project Administrators
- D. Contributor

203.

Your company has a project in Azure DevOps for a new application. The application will be deployed to several Azure virtual machines that run Windows Server

2019.

You need to recommend a deployment strategy for the virtual machines. The strategy must meet the following

requirements:

☞ Ensure that the virtual machines maintain a consistent configuration.

☞ Minimize administrative effort to configure the virtual machines.

What should you include in the recommendation?

- A. Azure Resource Manager templates and the PowerShell Desired State Configuration (DSC) extension for Windows
- B. Deployment YAML and Azure pipeline deployment groups
- C. Azure Resource Manager templates and the Custom Script Extension for Windows
- D. Deployment YAML and Azure pipeline stage templates

204.

You have an Azure DevOps project that uses many package feeds.

You need to simplify the project by using a single feed that stores packages produced by your company and packages consumed from remote feeds. The solution must support public feeds and authenticated feeds.

What should you enable in DevOps?

- A. Universal Packages
- B. upstream sources
- C. views in Azure Artifacts
- D. a symbol server

205.

DRAG DROP -

Your company has two virtual machines that run Linux in a third-party public cloud.

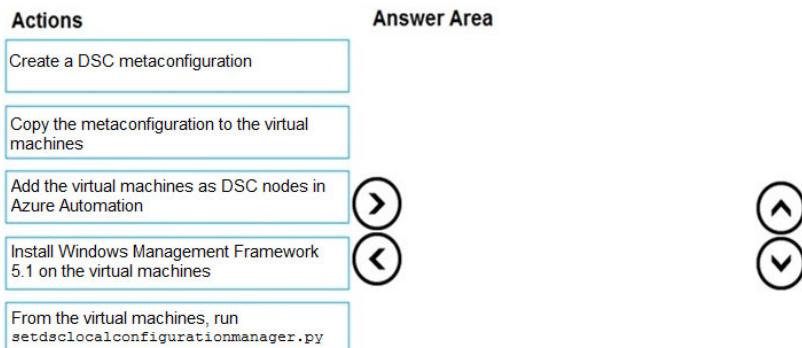
You plan to use the company's Azure Automation State Configuration implementation to manage the two virtual machines and detect configuration drift.

You need to onboard the Linux virtual machines.

You install PowerShell Desired State Configuration (DSC) on the virtual machines, and then run register.py.

Which three actions should you perform next in sequence? To answer, move the actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:



Create a DSC metaconfiguration Copy the metaconfiguration to the virtual machines From the virtual machines, run setdsclocalconfigurationmanager.py <https://docs.microsoft.com/en-us/azure/automation/automation-dsc-onboarding#enable-physicalvirtual-linux-machines>

206.

SIMULATION -

You plan to deploy a runbook that will create Azure AD user accounts.

You need to ensure that runbooks can run the Azure PowerShell cmdlets for Azure Active Directory.

To complete this task, sign in to the Microsoft Azure portal. >>>>>>

Azure Automation now ships with the Azure PowerShell module of version 0.8.6, which introduced the ability to non-interactively authenticate to Azure using OrgId

(Azure Active Directory user) credential-based authentication. Using the steps below, you can set up Azure Automation to talk to Azure using this authentication type.

Step 1: Find the Azure Active Directory associated with the Azure subscription to manage:

1. Log in to the Azure portal as the service administrator for the Azure subscription you want to manage using Azure Automation. You can find this user by logging in to the Azure portal as any user with access to this Azure subscription, then clicking Settings, then Administrators.



2. Note the name of the directory associated with the Azure subscription you want to manage. You can find this directory by clicking Settings, then Subscriptions.

settings

SUBSCRIPTION	SUBSCRIPTION ID	ACCOUNT ADMINISTRATOR	DIRECTORY
Windows Azure MSDN - Visual Studio Ultimate	[REDACTED]	[REDACTED]	Joe Levy

Step 2: Create an Azure Active Directory user in the directory associated with the Azure subscription to manage:

You can skip this step if you already have an Azure Active Directory user in this directory. and plan to use this OrgId to manage Azure.

1. In the Azure portal click on Active Directory service.



2. Click the directory name that is associated with this Azure subscription.

3. Click on the Users tab and then click the Add User button.

4. For type of user, select 'New user in your organization.' Enter a username for the user to create.

5. Fill out the user's profile. For role, pick 'User.' Don't enable multi-factor authentication. Multi-factor accounts cannot be used with Azure Automation.

6. Click Create.

7. Jot down the full username (including part after @ symbol) and temporary password.

Step 3: Allow this Azure Active Directory user to manage this Azure subscription.

1. Click on Settings (bottom Azure tab under StorSimple)

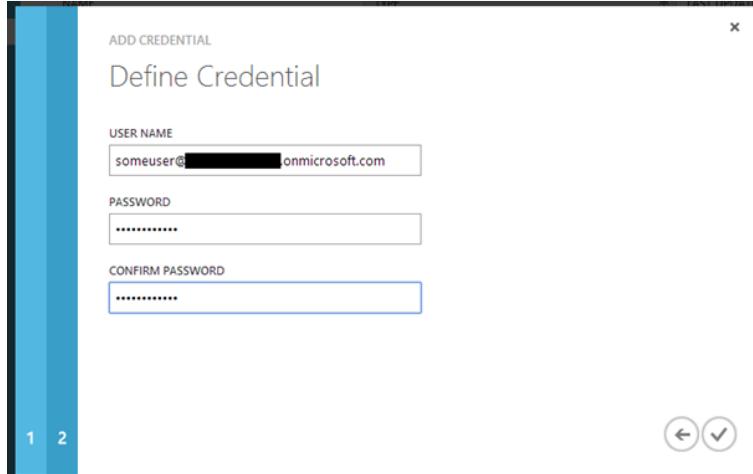


2. Click Administrators

3. Click the Add button. Type the full user name (including part after @ symbol) of the Azure Active Directory user you want to set up to manage Azure. For subscriptions, choose the Azure subscriptions you want this user to be able to manage. Click the check mark.

Step 4: Configure Azure Automation to use this Azure Active Directory user to manage this Azure subscription

Create an Azure Automation credential asset containing the username and password of the Azure Active Directory user that you have just created. You can create a credential asset in Azure Automation by clicking into an Automation Account and then clicking the Assets tab, then the Add Setting button.



Note: Once you have set up the Azure Active Directory credential in Azure and Azure Automation, you can now manage Azure from Azure Automation runbooks using this credential.

Reference:

<https://azure.microsoft.com/sv-se/blog/azure-automation-authenticating-to-azure-using-azure-active-directory/>

>>>>>>>

The ask is to install AzureAD powershell module for the automation runbooks. 1. select the Automation account with the runbook 2. select Modules, the "browse gallery" 3. search "AzureAD" and install it

207.

DRAG DROP -

You are creating a container for an ASP.NET Core app.

You need to create a Dockerfile file to build the image. The solution must ensure that the size of the image is minimized.

How should you configure the file? To answer, drag the appropriate values to the correct targets. Each value may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Values	Answer Area
dotnet publish -c Release -o out	FROM Value AS build-env
dotnet restore	COPY . /app/
mcr.microsoft.com/dotnet/aspnet:5.0	WORKDIR /app
mcr.microsoft.com/dotnet/sdk:5.0	RUN Value
	FROM Value
	COPY --from=build-env /app/out /app
	WORKDIR /app
	ENTRYPOINT ["dotnet", "MvcMovie.dll"]

FROM mcr.microsoft.com/dotnet/core/sdk:2.1 AS build-env WORKDIR /app COPY *.csproj ./ RUN dotnet restore COPY . ./ RUN dotnet publish -c Release -o out FROM mcr.microsoft.com/dotnet/core/aspnet:2.1 WORKDIR /app COPY --from=build-env /app/out . ENTRYPOINT ["dotnet", "asp-net-getting-started.dll"]
>>>>>>

Sdk to build Publish on Out folder aspnet to run

208.

DRAG DROP -

You are configuring the settings of a new Git repository in Azure Repos.

You need to ensure that pull requests in a branch meet the following criteria before they are merged:

Committed code must compile successfully.

Pull requests must have a Quality Gate status of Passed in SonarCloud.

Which policy type should you configure for each requirement? To answer, drag the appropriate policy types to the correct requirements. Each policy type may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Answer Area

Policy Types

A build policy

A check-in policy

A status policy

Committed code must compile successfully:

Pull requests must have a Quality Gate status of Passed in SonarCloud:

A build policy A status policy <https://azuredevopslabs.com/labs/vstsextend/sonarcloud/>
<https://docs.microsoft.com/en-us/azure/devops/repos/git/branch-policies?view=azure-devops#build-validation>

209.

You use a Git repository in Azure Repos to manage the source code of a web application. Developers commit changes directly to the default branch.

You need to implement a change management procedure that meets the following requirements:

The default branch must be protected, and new changes must be built in the feature branches first.

Changes must be reviewed and approved by at least one release manager before each merge.

Changes must be brought into the default branch by using pull requests.

What should you configure in Azure Repos?

- A. branch policies of the default branch
- B. Services in Project Settings
- C. Deployment pools in Project Settings
- D. branch security of the default branch

210.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

Your company uses Azure DevOps to manage the build and release processes for applications.

You use a Git repository for applications source control.

You need to implement a pull request strategy that reduces the history volume in the master branch.

Solution: You implement a pull request strategy that uses fast-forward merges.

Does this meet the goal?

- A. Yes
- B. No **Most Voted**

211.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

Your company uses Azure DevOps to manage the build and release processes for applications.

You use a Git repository for applications source control.

You need to implement a pull request strategy that reduces the history volume in the master branch.

Solution: You implement a pull request strategy that uses squash merges.

Does this meet the goal?

- A. Yes **Most Voted**
- B. No

212.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

Your company uses Azure DevOps to manage the build and release processes for applications.

You use a Git repository for applications source control.

You need to implement a pull request strategy that reduces the history volume in the master branch.

Solution: You implement a pull request strategy that uses an explicit merge.

Does this meet the goal?

- A. Yes
- B. No

213.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

Your company uses Azure DevOps to manage the build and release processes for applications.

You use a Git repository for applications source control.

You need to implement a pull request strategy that reduces the history volume in the master branch.

Solution: You implement a pull request strategy that uses a three-way merge.

Does this meet the goal?

- A. Yes
- B. No

214.

You need to recommend a Docker container build strategy that meets the following requirements:

☞ Minimizes image sizes

☞ Minimizes the security surface area of the final image

What should you include in the recommendation?

- A. multi-stage builds **Most Voted**
- B. PowerShell Desired State Configuration (DSC)
- C. Docker Swarm
- D. single-stage builds

215.

You plan to create an image that will contain a .NET Core application.

You have a Dockerfile file that contains the following code. (Line numbers are included for reference only.)

```
01 FROM microsoft/dotnet: 3.1-sdk
02 COPY . /
03 RUN dotnet publish -c Release -o out
04 FROM microsoft/dotnet: 3.1-sdk
05 COPY --from=0 /out /
06 WORKDIR /
07 ENTRYPOINT ["dotnet", "app1.dll"]
```

You need to ensure that the image is as small as possible when the image is built.

Which line should you modify in the file?

- A. 1
- B. 3
- C. 4 **Most Voted**
- D. 7

216.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

Your company has a project in Azure DevOps for a new web application.

You need to ensure that when code is checked in, a build runs automatically.

Solution: From the Triggers tab of the build pipeline, you select Batch changes while a build is in progress.

Does this meet the goal?

- A. Yes
- B. No

217.

HOTSPOT -

You need to deploy Azure Kubernetes Service (AKS) to host an application. The solution must meet the following requirements:

- ⇒ Containers must only be published internally.
- ⇒ AKS clusters must be able to create and manage containers in Azure.

What should you use for each requirement? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Containers must only be published internally:

Azure Container Instances
Azure Container Registry
Dockerfile

AKS clusters must be able to create and manage containers in Azure:

An Azure Active Directory (Azure AD) group
An Azure Automation account
An Azure service principal

218.

You have 50 Node.js-based projects that you scan by using WhiteSource. Each project includes Package.json, Package-lock.json, and Npm-shrinkwrap.json files.

You need to minimize the number of libraries reports by WhiteSource to only the libraries that you explicitly reference.

What should you do?

- A. Configure the File System Agent plug-in.
- B. Add a devDependencies section to Package-lock.json.
- C. Configure the Artifactory plug-in.
- D. Delete Package-lock.json.

219.

Your company deploys applications in Docker containers.

You want to detect known exploits in the Docker images used to provision the Docker containers.

You need to integrate image scanning into the application lifecycle. The solution must expose the exploits as early as possible during the application lifecycle.

What should you configure?

- A. a task executed in the continuous integration pipeline and a scheduled task that analyzes the image registry
- B. manual tasks performed during the planning phase and the deployment phase
- C. a task executed in the continuous deployment pipeline and a scheduled task against a running production container
- D. a task executed in the continuous integration pipeline and a scheduled task that analyzes the production container

220.

Your company has a hybrid cloud between Azure and Azure Stack.

The company uses Azure DevOps for its full CI/CD pipelines. Some applications are built by using Erlang and Hack.

You need to ensure that Erlang and Hack are supported as part of the build strategy across the hybrid cloud. The solution must minimize management overhead.

What should you use to execute the build pipeline?

- A. a Microsoft-hosted agent
- B. Azure DevOps self-hosted agents on Azure DevTest Labs virtual machines.
- C. Azure DevOps self-hosted agents on Hyper-V virtual machines
- D. Azure DevOps self-hosted agents on virtual machines that run on Azure Stack

221.

Your company has an Azure DevOps project,

The source code for the project is stored in an on-premises repository and uses on an on-premises build server.

You plan to use Azure DevOps to control the build process on the build server by using a self-hosted agent.

You need to implement the self-hosted agent.

You download and install the agent on the build server.

Which two actions should you perform next? Each correct answer presents part of the solution.

- A. From Azure, create a shared access signature (SAS).
- B. From the build server, create a certificate, and then upload the certificate to Azure Storage.
- C. From the build server, create a certificate, and then upload the certificate to Azure Key Vault.
- D. From DevOps, create a personal access token (PAT). **Most Voted**
- E. From the build server, run config.cmd. **Most Voted**

222.

You have an Azure subscription that contains an Azure Active Directory (Azure AD) tenant.

You are configuring a build pipeline in Azure Pipelines that will include a task named Task1. Task1 will authenticate by using an Azure AD service principal.

Which three values should you configure for Task1? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. the tenant ID
- B. the subscription ID
- C. the client secret
- D. the app ID
- E. the object ID

223.

DRAG DROP -

You are deploying a new application that uses Azure virtual machines.

You plan to use the Desired State Configuration (DSC) extension on the virtual machines.

You need to ensure that the virtual machines always have the same Windows feature installed.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions	Answer Area
Configure the DSC extension on the virtual machines.	
Create a YAML configuration file.	
Load the file to Azure Blob storage.	
Configure the Custom Script Extension on the virtual machines.	
Load the file to Azure Files.	
Create a PowerShell configuration file.	



Create a PowerShell configuration file 2.

Load the file to Azure Blob storage 3. Configure the *DSC extension* on the virtual machines

<https://docs.microsoft.com/en-us/azure/automation/automation-dsc-onboarding>

224.

You need to execute inline testing of an Azure DevOps pipeline that uses a Docker deployment model. The solution must prevent the results from being published to the pipeline.

What should you use for the inline testing?

- A. a single stage Dockerfile
- B. an Azure Kubernetes Service (AKS) pod
- C. a multi-stage Dockerfile
- D. a Docker Compose file

225.

You are designing an Azure DevOps strategy for your company's development team.

You suspect that the team's productivity is low due to accumulate technical debt.

You need to recommend a metric to assess the amount of the team's technical debt.

What should you recommend?

- A. the number of code modules in an application
- B. the number of unit test failures
- C. the percentage of unit test failures
- D. the percentage of overall time spent on rework

226.

You are developing an open source solution that uses a GitHub repository.

You create a new public project in Azure DevOps.

You plan to use Azure Pipelines for continuous build. The solution will use the GitHub Checks API.

Which authentication type should you use?

- A. OpenID
- B. GitHub App
- C. a personal access token (PAT)
- D. SAML

227.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

Your company has a project in Azure DevOps for a new web application.

You need to ensure that when code is checked in, a build runs automatically.

Solution: From the Continuous deployment trigger settings of the release pipeline, you enable the Pull request trigger setting.

Does this meet the goal?

- A. Yes
- B. No

228.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

Your company has a project in Azure DevOps for a new web application.

You need to ensure that when code is checked in, a build runs automatically.

Solution: From the Pre-deployment conditions settings of the release pipeline, you select After stage.

Does this meet the goal?

- A. Yes
- B. No

229.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

Your company has a project in Azure DevOps for a new web application.

You need to ensure that when code is checked in, a build runs automatically.

Solution: From the Pre-deployment conditions settings of the release pipeline, you select Batch changes while a build is in progress.

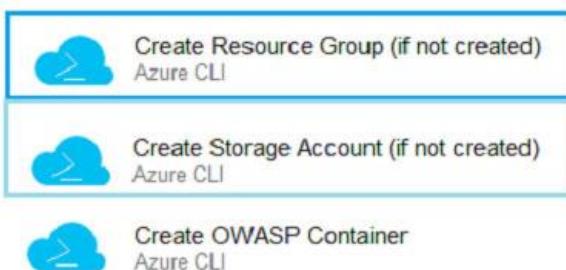
Does this meet the goal?

- A. Yes
- B. No

230.

DRAG DROP -

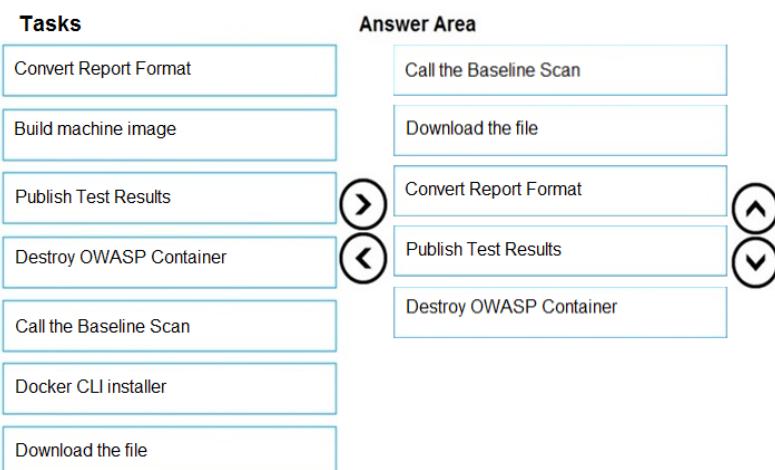
You have an Azure DevOps release pipeline as shown in the following exhibit.



You need to complete the pipeline to configure OWASP ZAP for security testing.

Which five Azure CLI tasks should you add in sequence? To answer, move the tasks from the list of tasks to the answer area and arrange them in the correct order.

Select and Place:



231.

HOTSPOT -

You company uses a Git source-code repository.

You plan to implement GitFlow as a workflow strategy.

You need to identify which branch types are used for production code and preproduction code in the strategy.

Which branch type should you identify for each code type? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Production code:

Master
Feature
Develop

Preproduction code:

Master
Feature
Develop

Hot Area:

The Git Flow Workflow In the Git flow workflow, there are five different branch types: Main Develop Feature Release Hotfix Git Flow: Main Branch The purpose of the main branch in the Git flow workflow is to contain production-ready code that can be released. Git Flow: Develop Branch The develop branch is created at the start of a project and is maintained throughout the development process, and contains pre-production code with newly developed features that are in the process of being tested. Git Flow: Supporting Branches When developing with Git flow, there are three types of supporting branches with different intended purposes: feature, release, and hotfix. Git Flow: Feature Branch The feature branch is the most common type of branch in the Git flow workflow. It is used when adding new features to your code. When working on a new feature, you will start a feature branch off the develop branch, and then merge your changes back into the develop branch when the feature is completed and properly reviewed.

232.

You have a build pipeline in Azure Pipelines that uses different jobs to compile an application for 10 different architectures.

The build pipeline takes approximately one day to complete.

You need to reduce the time it takes to execute the build pipeline.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Move to a blue/green deployment pattern
- B. Create a deployment group
- C. Increase the number of parallel jobs **Most Voted**
- D. Reduce the size of the repository
- E. Create an agent pool **Most Voted**

233.

You are creating a build pipeline in Azure Pipelines.

You define several tests that might fail due to third-party applications.

You need to ensure that the build pipeline completes successfully if the third-party applications are unavailable.

What should you do?

- A. Configure the build pipeline to use parallel jobs
- B. Configure flaky tests **Most Voted**
- C. Increase the test pass percentage
- D. Add the Requirements quality widget to your dashboard

234.

DRAG DROP -

You have an Azure subscription that contains a resources group named RG1. RG1 contains the following resources:

- ⇒ Four Azure virtual machines that run Windows Server and have Internet Information Services (IIS) installed.
- ⇒ SQL Server on an Azure virtual machine.
- ⇒ An Azure Load Balancer.

You need to deploy an application to the virtual machines in RG1 by using Azure Pipelines.

Which four actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

NOTE: More than one order of answer choices is correct. You will receive credit for any of the correct orders you select.

Select and Place:

Actions

Answer Area

Create an agent pool



Add the Puppet Agent extension to the virtual machines



Add and configure a deployment group job for the pipeline



Add the Azure Pipelines Agent extension to the virtual machines



Create a deployment group

Execute the pipeline

read the doc (which is terribly written) and watched some videos. The correct steps 1- Create a deployment group and assign a tag to each machine (you can also create multiple groups) 2- Add the Azure Pipelines Agent extension to the virtual machines: once you add a machine, you will get a powershell script with the PAT. You install the agent by running the script on your machine. 3- Add and configure a deployment group job for the pipeline: hook up the jobs in the pipeline with deployment group's machine 4- excuse the pipeline: run the pipeline

235.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

Your company has a project in Azure DevOps for a new web application.

You need to ensure that when code is checked in, a build runs automatically.

Solution: From the Triggers tab of the build pipeline, you select Enable continuous integration.

Does this meet the goal?

- A. Yes
- B. No

236.

You have an Azure DevOps organization named Contoso and an Azure DevOps project named Project1.

You plan to use Microsoft-hosted agents to build container images that will host full Microsoft .NET Framework apps in a YAML pipeline in Project1.

What are two possible virtual machine images that you can use for the Microsoft-hosted agent pool? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. vs2017-win2016
- B. ubuntu-16.04
- C. win1803
- D. macOS-10.13
- E. vs.2015-win2012r2

237.

HOTSPOT -

You currently use JIRA, Jenkins, and Octopus as part of your DevOps processes.

You plan to use Azure DevOps to replace these tools.

Which Azure DevOps service should you use to replace each tool? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

JIRA:

A rectangular hot area labeled "JIRA:" containing a dropdown menu with four options: Boards, Build pipelines, Release pipelines, and Repos. Each option is preceded by a small blue square icon.

- Boards
- Build pipelines
- Release pipelines
- Repos

Jenkins:

A rectangular hot area labeled "Jenkins:" containing a dropdown menu with four options: Boards, Build pipelines, Release pipelines, and Repos. Each option is preceded by a small blue square icon.

- Boards
- Build pipelines
- Release pipelines
- Repos

Octopus:

A rectangular hot area labeled "Octopus:" containing a dropdown menu with four options: Boards, Build pipelines, Release pipelines, and Repos. Each option is preceded by a small blue square icon.

- Boards
- Build pipelines
- Release pipelines
- Repos

Boards Build pipelines Release pipelines

238.

Your company has a project in Azure DevOps.

You need to ensure that when there are multiple builds pending deployment, only the most recent build is deployed.

What should you use?

- A. deployment conditions
- B. deployment queue settings
- C. release gates
- D. pull request triggers

239.

Your company develops a client banking application that processes a large volume of data.

Code quality is an ongoing issue for the company. Recently, the code quality has deteriorated because of an increase in time pressure on the development team.

You need to implement static code analysis.

During which phase should you use static code analysis?

- A. integration testing
- B. staging
- C. production release
- D. build **Most Voted**

240.

DRAG DROP -

You have a project in Azure DevOps that uses packages from multiple public feeds. Some of the feeds are unreliable.

You need to consolidate the packages into a single feed.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions	Answer Area
Modify the configuration files to reference the Azure Artifacts feed.	
Run an initial package restore.	
Create a Microsoft Visual Studio project that includes all the packages.	✖
Create an Azure Artifacts feed that uses upstream sources.	✔
Create a NuGet package.	
Create an npm package.	

it should be: 1. Create an azure artifacts feed that uses upstream sources Upstream sources enable you to use a single feed to store both the packages you produce and the packages you consume from both public packages managers (npmjs.com, NuGet.org, Maven Central, and PyPI) and Artifacts feeds. 2. Modify the configuration files to reference the Arure Artifacts feed Since they were referencing the public feeds 3. Run an initial package restore To pull the packages from the public feed and save them in the azure upstream feed: Packages belonging to an upstream are available downstream soon after they are published, but will only show up in the feed's UI once they have been 'ingested,' which requires installing the package version for the first time in the downstream feed. <https://docs.microsoft.com/en-us/azure/devops/artifacts/concepts/upstream-sources?view=azure-devops> <https://docs.microsoft.com/en-us/azure/devops/artifacts/how-to/set-up-upstream-sources?view=azure-devops>

241.

HOTSPOT -

You have the Azure DevOps pipeline shown in the following exhibit.

The screenshot shows the Azure DevOps Pipeline interface for a project named 'PartsUnlimitedE2E'. The pipeline has four tasks:

- Get sources (Azure Repos)
- Cloud Agent (Run on agent) - This task is highlighted with a blue background.
- NuGet restore (NuGet Installer)
- Compile Application (.NET Core)

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

The pipeline has job(s).

0
1
4

The pipeline has task(s).

0
1
4

Box 1: 1 -

The Cloud agent job only.

Box 2: 4 -

The pipeline has the four tasks: NuGet restore, Compile Application, Copy Files, and Publish Artifact.

Reference:

<https://azuredvelopslabs.com/labs/azuredvelops/continuousintegration/>

242.

SIMULATION -

You have an Azure function hosted in an App Service plan named az400-9940427-func1.

You need to configure az400-9940427-func1 to upgrade the functions automatically whenever new code is committed to the master branch of <https://github.com/Azure-Samples/functions-quickstart>.

To complete this task, sign in to the Microsoft Azure portal.>>>>>>>>>>

Open Microsoft Azure Portal

2. Log into your Azure account, select App Services in the Azure portal left navigation, and then select configure az400-9940427-func1.

3. On the app page, select Deployment Center in the left menu.

4. On the Build provider page, select Azure Pipelines (Preview), and then select Continue.

5. On the Configure page, in the Code section:

For GitHub, drop down and select the Organization, Repository, and Branch you want to deploy continuously.

6. Select Continue.

7. On the Test page, choose whether to enable load tests, and then select Continue.

8. Depending on your App Service plan pricing tier, you may see a Deploy to staging page. Choose whether to enable deployment slots, and then select Continue.

9. After you configure the build provider, review the settings on the Summary page, and then select

Finish.

Reference:

<https://docs.microsoft.com/en-us/azure/app-service/deploy-continuous-deployment>

<https://docs.microsoft.com/en-us/azure/azure-functions/functions-continuous-deployment>

243.

DRAG DROP -

You need to use Azure Automation State Configuration to manage the ongoing consistency of virtual machine configurations.

Which five actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

NOTE: More than one order of answer choices is correct. You will receive credit for any of the correct orders you select.

Select and Place:

Actions	Answer Area	
Onboard the virtual machines to Azure Automation State Configuration.		
Check the compliance status of the node.		
Create a management group.		
Assign the node configuration.		
Compile a configuration into a node configuration.		
Upload a configuration to Azure Automation State Configuration.		
Assign tags to the virtual machines.		

it says in the question that there are multiple types of answer sorting. I would add that the following sorting would also be correct: 1. Upload a config 2. Onboard the VM 3. Compile a configuration 4. Assign node configuration 5. check compliance status in fact as you can see from the article below the upload and onboard process are independent. Just look at what parameters are passed in the powershell commands.

For example to do the onboard you need: - a resource group - an automation account - a VM (with the DSC extension installed) <https://docs.microsoft.com/en-us/azure/automation/tutorial-configure-servers-desired-state>

244.

You are developing an application. The application source has multiple branches.

You make several changes to a branch used for experimentation.

You need to update the main branch to capture the changes made to the experimentation branch and override the history of the Git repository.

Which Git option should you use?

- A. Rebase
- B. Fetch
- C. Merge
- D. Push

245.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You use Azure Pipelines to build and test a React.js application.

You have a pipeline that has a single job.

You discover that installing JavaScript packages from npm takes approximately five minutes each time you run the pipeline.

You need to recommend a solution to reduce the pipeline execution time.

Solution: You recommend defining a container job that uses a custom container that has the JavaScript packages preinstalled.

Does this meet the goal?

- A. Yes
- B. No

246.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You use Azure Pipelines to build and test a React.js application.

You have a pipeline that has a single job.

You discover that installing JavaScript packages from npm takes approximately five minutes each time you run the pipeline.

You need to recommend a solution to reduce the pipeline execution time.

Solution: You recommend enabling pipeline caching.

Does this meet the goal?

- A. Yes
- B. No

247.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You use Azure Pipelines to build and test a React.js application.

You have a pipeline that has a single job.

You discover that installing JavaScript packages from npm takes approximately five minutes each time you run the pipeline.

You need to recommend a solution to reduce the pipeline execution time.

Solution: You recommend enabling parallel jobs for the pipeline.

Does this meet the goal?

- A. Yes
- B. No

248.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You plan to create a release pipeline that will deploy Azure resources by using Azure Resource Manager templates.

The release pipeline will create the following resources:

- ☞ Two resource groups
- ☞ Four Azure virtual machines in one resource group
- ☞ Two Azure SQL databases in other resource group

You need to recommend a solution to deploy the resources.

Solution: Create two standalone templates, each of which will deploy the resources in its respective group.

Does this meet the goal?

- A. Yes
- B. No

249.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct

solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You plan to create a release pipeline that will deploy Azure resources by using Azure Resource Manager templates.

The release pipeline will create the following resources:

- ⇒ Two resource groups
- ⇒ Four Azure virtual machines in one resource group
- ⇒ Two Azure SQL databases in other resource group

You need to recommend a solution to deploy the resources.

Solution: Create a single standalone template that will deploy all the resources.

Does this meet the goal?

- A. Yes
- B. No

250.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure DevOps project.

Your build process creates several artifacts.

You need to deploy the artifacts to on-premises servers.

Solution: You deploy a Kubernetes cluster on-premises. You deploy a Helm agent to the cluster. You add a Download Build Artifacts task to the deployment pipeline.

Does this meet the goal?

- A. Yes
- B. No

251.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure DevOps project.

Your build process creates several artifacts.

You need to deploy the artifacts to on-premises servers.

Solution: You deploy a Docker build to an on-premises server. You add a Download Build Artifacts task to the deployment pipeline.

Does this meet the goal?

- A. Yes
- B. No

252.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure DevOps project.

Your build process creates several artifacts.

You need to deploy the artifacts to on-premises servers.

Solution: You deploy an Azure self-hosted agent to an on-premises server. You add a Copy and Publish Build Artifacts task to the deployment pipeline.

Does this meet the goal?

- A. Yes
- B. No

253.

You have a project in Azure DevOps named Project1. Project1 contains a pipeline that builds a container image named Image1 and pushes Image1 to an Azure container registry named ACR1. Image1 uses a base image stored in Docker Hub.

You need to ensure that Image1 is updated automatically whenever the base image is updated.

What should you do?

- A. Enable the Azure Event Grid resource provider and subscribe to registry events.
- B. Add a Docker Hub service connection to Azure Pipelines.
- C. Create and run an Azure Container Registry task.
- D. Create a service hook in Project1.

254.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an Azure DevOps project.

Your build process creates several artifacts.

You need to deploy the artifacts to on-premises servers.

Solution: You deploy an Octopus Deploy server. You deploy a polled Tentacle agent to an on-premises server. You add an Octopus task to the deployment pipeline.

Does this meet the goal?

- A. Yes
- B. No

255.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You plan to create a release pipeline that will deploy Azure resources by using Azure Resource Manager templates.

The release pipeline will create the following resources:

- ☞ Two resource groups
- ☞ Four Azure virtual machines in one resource group
- ☞ Two Azure SQL databases in other resource group

You need to recommend a solution to deploy the resources.

Solution: Create a main template that will deploy the resources in one resource group and a nested template that will deploy the resources in the other resource group.

Does this meet the goal?

- A. Yes
- B. No

256.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You plan to create a release pipeline that will deploy Azure resources by using Azure Resource Manager templates.

The release pipeline will create the following resources:

- ☞ Two resource groups
- ☞ Four Azure virtual machines in one resource group
- ☞ Two Azure SQL databases in other resource group

You need to recommend a solution to deploy the resources.

Solution: Create a main template that has two linked templates, each of which will deploy the resources in its

respective group.

Does this meet the goal?

- A. Yes
- B. No

257.

DRAG DROP -

You are building an application that has the following assets:

- Source code
- Logs from automated tests and builds
- Large and frequently updated binary assets
- A common library used by multiple applications

Where should you store each asset? To answer, drag the appropriate Azure services to the correct assets.

Each service may be used once. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Azure Services Answer Area

Azure Artifacts	Source code:	Azure Repos
Azure Pipelines	A common library used by multiple applications:	Azure Artifacts
Azure Repos	Logs from automated tests and builds:	Azure Pipelines
Azure Storage	Large and frequently updated binary assets:	Azure Storage
Azure Test Plans		

258.

You plan to share packages that you wrote, tested, validated, and deployed by using Azure Artifacts.

You need to release multiple builds of each package by using a single feed. The solution must limit the release of packages that are in development.

What should you use?

- A. local symbols
- B. views **Most Voted**
- C. global symbols
- D. upstream sources

259.

You have a project in Azure DevOps named Project1. Project1 contains a build pipeline named Pipe1 that builds an application named App1.

You have an agent pool named Pool1 that contains a Windows Server 2019-based self-hosted agent. Pipe1 uses Pool1.

You plan to implement another project named Project2. Project2 will have a build pipeline named Pipe2 that builds an application named App2.

App1 and App2 have conflicting dependencies.

You need to minimize the possibility that the two build pipelines will conflict with each other. The solution must minimize infrastructure costs.

What should you do?

- A. Add another self-hosted agent.
- B. Add a Docker Compose task to the build pipelines.
- C. Change the self-hosted agent to use Red Hat Enterprise Linux (RHEL) 8.
- D. Create two container jobs.

260.

SIMULATION -

You plan to store signed images in an Azure Container Registry instance named az4009940427acr1.

You need to modify the SKU for az4009940427acr1 to support the planned images. The solution must minimize costs.

To complete this task, sign in to the Microsoft Azure portal.>>>>>>

Open Microsoft Azure Portal, and select the Azure Container Registry instance named az4009940427acr1.
2. Under Policies, select Content Trust > Enabled > Save.

The screenshot shows the Azure Container Registry interface. In the top navigation bar, it says 'myregistry - Content Trust'. On the left, there's a sidebar with 'Services' (Repositories, Webhooks, Replications, Tasks), 'Policies' (Content trust, which is highlighted with a red box), and 'Monitoring'. The main content area has a heading 'When turned on, content trust enables you to push trusted images to the registry. Learn more'. Below it, there's a 'Status' section with 'Disabled' and 'Enabled' buttons, where 'Enabled' is highlighted with a red box. At the bottom right of the content area are 'Save' and 'Discard' buttons.

Reference:

<https://docs.microsoft.com/en-us/azure/container-registry/container-registry-content-trust>

261.

You manage build pipelines and deployment pipelines by using Azure DevOps.

Your company has a team of 500 developers. New members are added continually to the team.

You need to automate the management of users and licenses whenever possible.

Which task must you perform manually?

- A. modifying group memberships
- B. adding users
- C. assigning entitlements
- D. procuring licenses

262.

HOTSPOT -

Your company uses Team Foundation Server 2013 (TFS 2013).

You plan to migrate to Azure DevOps.

You need to recommend a migration strategy that meets the following requirements:

- Preserves the dates of Team Foundation Version Control changesets
- Preserves the changed dates of work items revisions

Minimizes migration effort -

-
- Migrates all TFS artifacts

What should you recommend? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

On the TFS server:

A dropdown menu with three items:

- Install the TFS Java SDK.
- Upgrade TFS to the most recent RTW release. (This item is highlighted with a green background)
- Upgrade to the most recent version of PowerShell Core.

To perform the migration:

A dropdown menu with four items:

- Copy the assets manually.
- Use public API-based tools.
- Use the TFS Database Import Service. (This item is highlighted with a green background)
- Use the TFS Integration Platform.

263.

Your company uses Azure Artifacts for package management.

You need to configure an upstream source in Azure Artifacts for Python packages.

Which repository type should you use as an upstream source?

- A. npmjs.org
- B. PyPI
- C. Maven Central
- D. third-party trusted Python

264.

HOTSPOT -

You manage the Git repository for a large enterprise application.

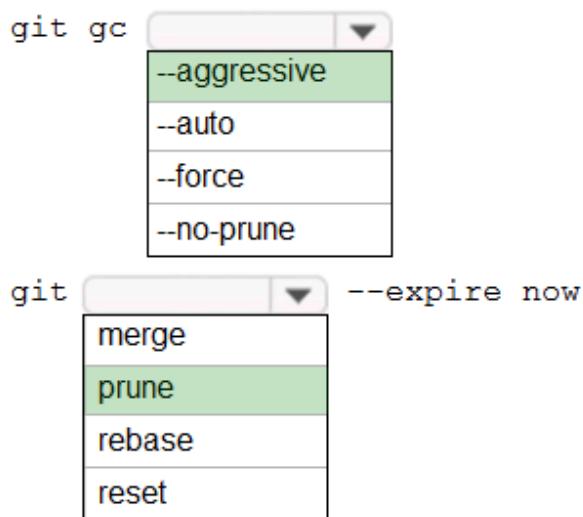
You need to minimize the data size of the repository.

How should you complete the commands? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area



265.

SIMULATION -

You plan to deploy a template named D:\Deploy.json to a resource group named Deploy-lod9940427.

You need to modify the template to meet the following requirements, and then to deploy the template:

☞ The address space must be reduced to support only 256 total IP addresses.

☞ The subnet address space must be reduced to support only 64 total IP addresses.

To complete this task, sign in to the Microsoft Azure portal.>>>>>

See explanation below.

1. Sign in to the portal.

2. Choose template Deploy-lod9940427

3. Select Edit template, and then paste your JSON template code into the code window.

4. Change the ASddressPrefixes to 10.0.0.0/24 in order to support only 256 total IP addresses.

addressSpace": {"addressPrefixes": ["10.0.0.0/24"]},

5. Change the firstSubnet addressprefix to 10.0.0.0/26 to support only 64 total IP addresses.

"subnets": [

{

 "name": "firstSubnet",

 "properties": {

 "addressPrefix": "10.0.0.0/24"

}

6. Select Save.

Microsoft Azure Stack - Administration

Home > New > Custom deployment

Create a resource

All services

FAVORITES

Dashboard

All resources

Resource groups

Virtual machines

Recent

Plans

Offers

Monitor

Marketplace management

Custom deployment

Deploy from a custom template

Template >
Edit template

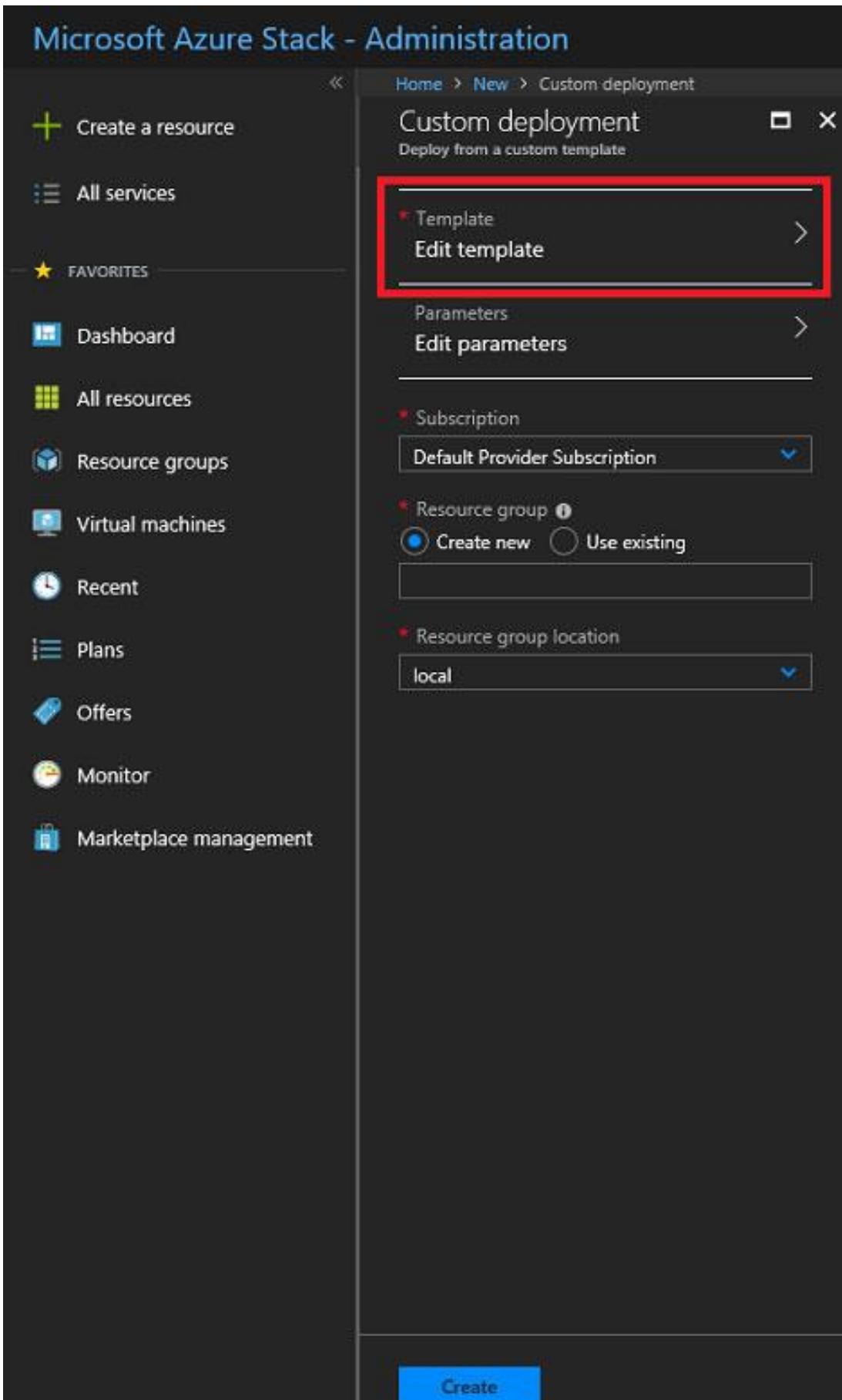
Parameters >
Edit parameters

Subscription
Default Provider Subscription

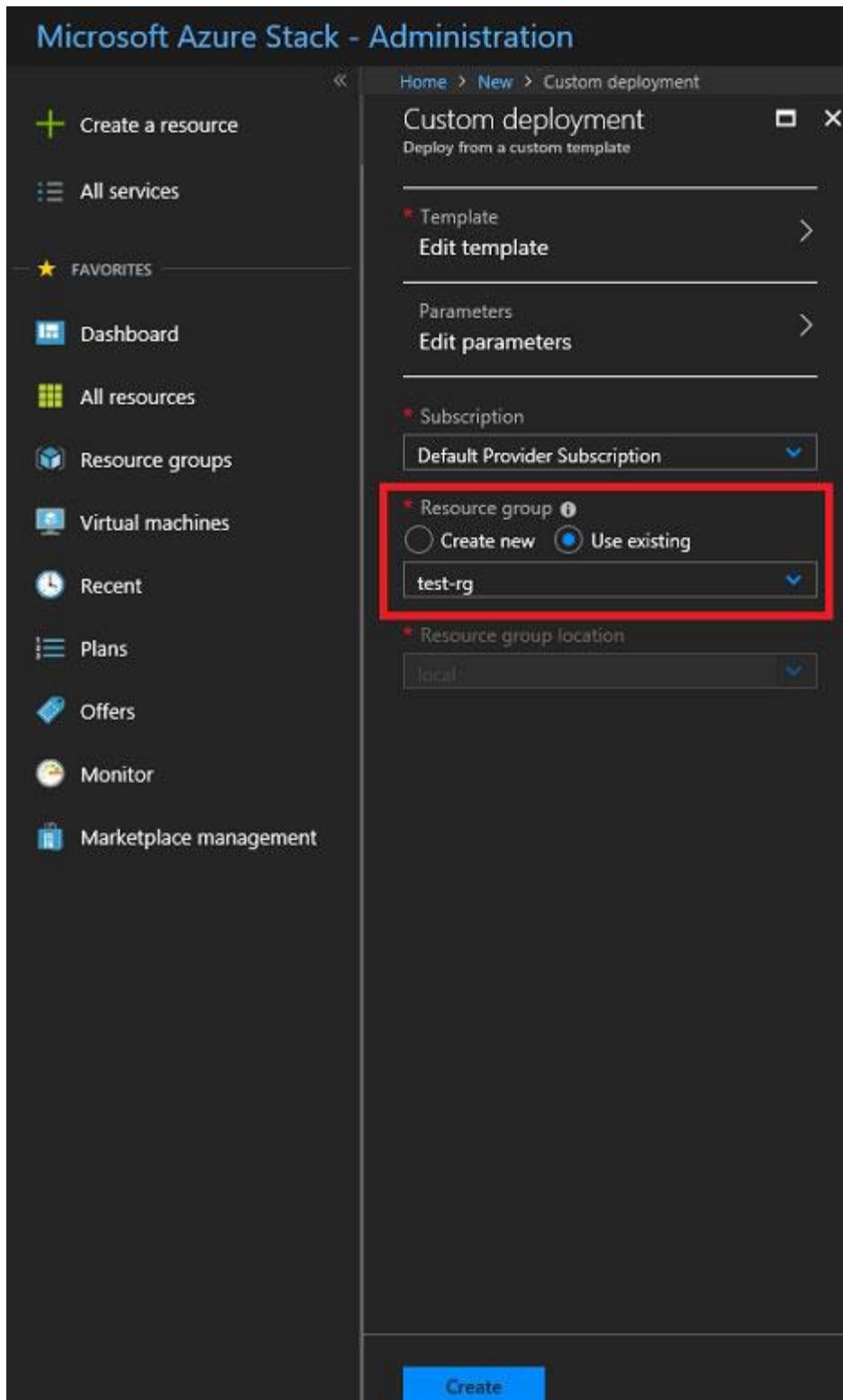
Resource group
 Create new Use existing

Resource group location
local

Create



7. Select Edit parameters, provide values for the parameters that are shown, and then select OK.
8. Select Subscription. Choose the subscription you want to use, and then select OK.
9. Select Resource group. Choose an existing resource group or create a new one, and then select OK.



10. Select Create. A new tile on the dashboard tracks the progress of your template deployment.

Reference:

<https://docs.microsoft.com/en-us/azure-stack/user/azure-stack-deploy-template-portal?view=azs-1908>

<https://docs.microsoft.com/en-us/azure/architecture/building-blocks/extending-templates/update-resource>

266.

SIMULATION -

You need to configure an Azure web app named az400-9940427-main to contain an environmental variable named `MAX_ITEMS`. The environmental variable must have a value of 50.

To complete this task, sign in to the Microsoft Azure portal.>>>>>>

See explanation below.

1. In the Azure portal, navigate to the az400-9940427-main app's management page. In the app's left menu, click Configuration > Application settings.

2. Click New Application settings

3. Enter the following:

Name: MAX_ITEMS

Value: 50

Reference:

<https://docs.microsoft.com/en-us/azure/app-service/configure-common>

267.

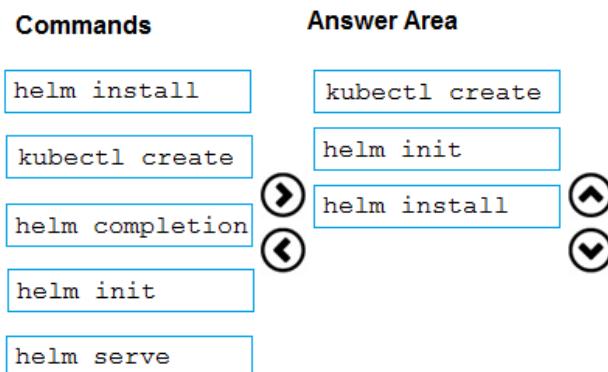
DRAG DROP -

You provision an Azure Kubernetes Service (AKS) cluster that has RBAC enabled. You have a Helm chart for a client application.

You need to configure Helm and Tiller on the cluster and install the chart.

Which three commands should you recommend be run in sequence? To answer, move the appropriate commands from the list of commands to the answer area and arrange them in the correct order.

Select and Place:



268.

Your company builds a multi-tier web application.

You use Azure DevOps and host the production application on Azure virtual machines.

Your team prepares an Azure Resource Manager template of the virtual machine that you will use to test new features.

You need to create a staging environment in Azure that meets the following requirements:

Minimizes the cost of Azure hosting

Provisions the virtual machines automatically

Uses the custom Azure Resource Manager template to provision the virtual machines

What should you do?

- A. In Azure Cloud Shell, run Azure CLI commands to create and delete the new virtual machines in a staging resource group.
- B. In Azure DevOps, configure new tasks in the release pipeline to deploy to Azure Cloud Services.

- C. From Azure Cloud Shell, run Azure PowerShell commands to create and delete the new virtual machines in a staging resource group.
- D. In Azure DevOps, configure new tasks in the release pipeline to create and delete the virtual machines in Azure DevTest Labs.

269.

DRAG DROP -

You are implementing an Azure DevOps strategy for mobile devices using App Center.

You plan to use distribution groups to control access to releases.

You need to create the distribution groups shown in the following table.

Name	Use
Group1	Application testers who are invited by email
Group2	Early release users who use unauthenticated public links
Group3	Application testers for all the apps of your company

Which type of distribution group should you use for each group? To answer, drag the appropriate group types to the correct locations. Each group type may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Answer Area

<input type="radio"/> Private	Group1: <input type="radio"/> Private
<input type="radio"/> Public	Group2: <input type="radio"/> Public
<input type="radio"/> Shared	Group3: <input type="radio"/> Shared

270.

SIMULATION -

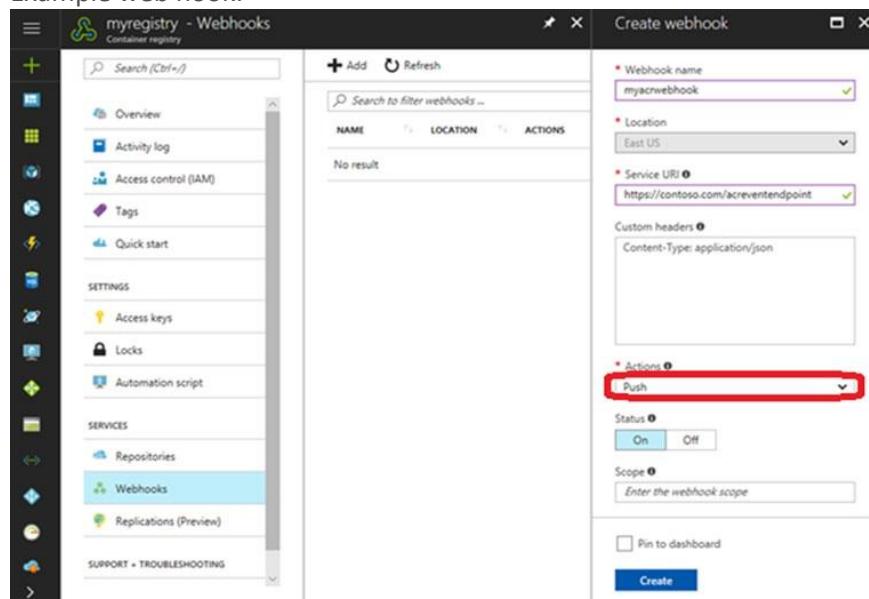
You need to ensure that the <https://contoso.com/statushook> webhook is called every time a repository named az40010480345acr1 receives a new version of an image named dotnetapp.

To complete this task, sign in to the Microsoft Azure portal.>>>>>>>>>

See explanation below.

1. Sign in to the Azure portal.
2. Navigate to the container registry az40010480345acr1.
3. Under Services, select Webhooks.
4. Select the existing webhook <https://contoso.com/statushook>, and double-click on it to get its properties.
5. For Trigger actions select image push

Example web hook:



Reference:

<https://docs.microsoft.com/en-us/azure/container-registry/container-registry-webhook>

In the "scope" section, we should add: "dotnetapp:*". Scope: The scope at which the webhook works. If not specified, the scope is for all events in the registry. It can be specified for a repository or a tag by using the format "repository:tag", or "repository: *" for all tags under a repository. source:

<https://docs.microsoft.com/en-us/azure/container-registry/container-registry-webhook>

271.

HOTSPOT -

You need to create deployment files for an Azure Kubernetes Service (AKS) cluster. The deployments must meet the provisioning storage requirements shown in the following table.

Deployment	Requirement
Deployment 1	Use files stored on an SMB-based share from the container's file system.
Deployment 2	Use files stored on a managed disk from the container's file system.
Deployment 3	Securely access X.509 certificates from the container's file system.

Which resource type should you use for each deployment? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Deployment 1:	<input type="checkbox"/> driver: secrets-store.csi.k8s.io <input type="checkbox"/> blobfuse-flexvol <input checked="" type="checkbox"/> provisioner: kubernetes.io/azure-disk <input checked="" type="checkbox"/> provisioner: kubernetes.io/azure-file <input type="checkbox"/> volume.beta.kubernetes.io/storage-provisioner
Deployment 2:	<input type="checkbox"/> driver: secrets-store.csi.k8s.io <input checked="" type="checkbox"/> blobfuse-flexvol <input checked="" type="checkbox"/> provisioner: kubernetes.io/azure-disk <input type="checkbox"/> provisioner: kubernetes.io/azure-file <input type="checkbox"/> volume.beta.kubernetes.io/storage-provisioner
Deployment 3:	<input checked="" type="checkbox"/> driver: secrets-store.csi.k8s.io <input type="checkbox"/> blobfuse-flexvol <input type="checkbox"/> provisioner: kubernetes.io/azure-disk <input type="checkbox"/> provisioner: kubernetes.io/azure-file <input type="checkbox"/> volume.beta.kubernetes.io/storage-provisioner

272.

Your company uses Azure DevOps to manage the build and release processes for applications.

You use a Git repository for applications source control.

You plan to create a new branch from an existing pull request. Later, you plan to merge the new branch and the target branch of the pull request.

You need to use a pull request action to create the new branch. The solution must ensure that the branch uses only a portion of the code in the pull request.

Which pull request action should you use?

- A. Set as default branch
- B. Approve with suggestions
- C. Cherry-pick
- D. Reactivate
- E. Revert

273.

DRAG DROP -

You manage the Git repository for a large enterprise application.

During the development of the application, you use a file named Config.json.

You need to prevent Config.json from being committed to the source control whenever changes to the application are committed.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions	Answer Area
Delete and recreate the repository.	
Run the <code>git reflog expire</code> command.	
Run the <code>git add .gitignore</code> command.	
Add Config.json to the <code>.gitignore</code> file.	
Run the <code>git commit</code> command.	



correct sequence

is: 1. Add config.json to the `.gitignore` 2. Run git add `.gitignore` 3. Run git commit

274.

You are designing a build pipeline in Azure Pipelines.

The pipeline requires a self-hosted agent. The build pipeline will run once daily and will take 30 minutes to complete.

You need to recommend a compute type for the agent. The solution must minimize costs.

What should you recommend?

- A. an Azure Kubernetes Service (AKS) cluster
- B. Azure Container Instances **Most Voted**
- C. an Azure virtual machine scale set
- D. Azure virtual machines

275.

HOTSPOT -

You are finalizing a release in GitHub.

You need to apply the following labels to the release:

- Name
- Email
- Release v3.0
- Release date

How should you complete the git command? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

git				"Release v3.0"
-----	--	--	--	----------------

276.

You have a project in Azure DevOps. You have an Azure Resource Group deployment project in Microsoft Visual Studio that is checked in to the Azure DevOps project.

You need to create a release pipeline that will deploy resources by using Azure Resource Manager templates. The solution must minimize administrative effort.

Which task type should you include in the solution?

- A. Azure Cloud Service Deployment
- B. Azure RM Web App Deployment
- C. Azure PowerShell
- D. Azure App Service Manage

277.

DRAG DROP -

Your company has a project in Azure DevOps.

You plan to create a release pipeline that will deploy resources by using Azure Resource Manager templates.

The templates will reference secrets stored in Azure

Key Vault.

You need to recommend a solution for accessing the secrets stored in the key vault during deployments. The solution must use the principle of least privilege.

What should you include in the recommendation? To answer, drag the appropriate configurations to the correct targets. Each configuration may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Configurations	Answer Area
an Azure Key Vault access policy	Restrict access to delete the key vault: _____
a personal access token (PAT)	Restrict access to the secrets in Key Vault by using: _____
RBAC	

answer should be RBAC control on key vault resource Access Policy for controlling key, secrets, certificates.

278.

DRAG DROP -

As part of your application build process, you need to deploy a group of resources to Azure by using an Azure Resource Manager template located on GitHub.

Which three action should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

ACTIONS	ANSWER AREA
Set the template parameters.	Create a release pipeline.
Create a package.	Add an Azure Resource Group Deployment task.
Create a release pipeline.	Set the template parameters.
Create a job agent.	
Add an Azure Resource Group Deployment task.	

279.

You have an Azure DevOps project that contains a release pipeline and a Git repository.

When a new code revision is committed to the repository, a build and release is triggered.

You need to ensure that release information for the pipeline is added automatically to the work items associated to the Git commit.

What should you do?

- A. Modify the Integrations options for the pipeline.
- B. Modify the post-deployment conditions for the last stage of the pipeline.
- C. Add an agentless job to the pipeline.
- D. Modify the service hooks for the project.

280.

SIMULATION -

You plan to add a new web farm that will be published by using an IP address of 10.0.0.5.

You need to allow traffic from the web farm to an Azure Database for MySQL server named az400-11566895-mysql.

To complete this task, sign in to the Microsoft Azure portal.>>>>>>>>>

See explanation below.

Server-level firewall rules can be used to manage access to an Azure Database for MySQL Server from a specified IP address or a range of IP addresses.

Create a server-level firewall rule in the Azure portal

1. On the MySQL server page, under Settings heading, click Connection Security to open the Connection Security page for the Azure Database for MySQL.

The screenshot shows the 'mydemoserver - Connection security' page. The left sidebar has a 'Connection security' link highlighted with a red box. The main area shows the 'Firewall rules' section with a note: 'Connections from the IPs specified below provides access to all the databases in andrela-mysql.' An 'Allow access to Azure services' switch is set to 'ON'. Below it, there's a table for defining rules, with a single row: 'Rule name' is empty, 'Start IP address' is '123.123.123.123', and 'End IP address' is '123.123.123.123'. A note says 'No firewall rules configured.' Below this is the 'VNET rules' section, which is currently empty. At the bottom is the 'SSL settings' section with an 'Enforce SSL connection' switch set to 'ENABLED'.

2. In the firewall rules for the Azure Database for MySQL, you can specify a single IP address or a range of addresses. If you want to limit the rule to a single IP address, type the same address in the Start IP and End IP fields. Opening the firewall enables administrators, users, and application to access any database on the MySQL server to which they have valid credentials.

This screenshot shows the same 'mydemoserver - Connection security' page as above, but with a specific rule added. The 'Rule name' field contains 'ClientIPAddress_2019-9-4_13-47-46'. The 'Start IP address' and 'End IP address' fields both contain '123.123.123.123', with these two fields highlighted by a red box. The rest of the interface is identical to the first screenshot.

3. Click Save on the toolbar to save this server-level firewall rule. Wait for the confirmation that the update to the firewall rules is successful.

Reference:

<https://docs.microsoft.com/en-us/azure/mysql/howto-manage-firewall-using-portal#create-a-server-level-firewall-rule-in-the-azure-portal>

281.

Your company has a release pipeline in an Azure DevOps project.

You plan to deploy to an Azure Kubernetes Services (AKS) cluster by using the Helm package and deploy task.

You need to install a service in the AKS namespace for the planned deployment.

Which service should you install?

- A. Azure Container Registry
- B. Chart
- C. Kubectl
- D. Tiller

282.

SIMULATION -

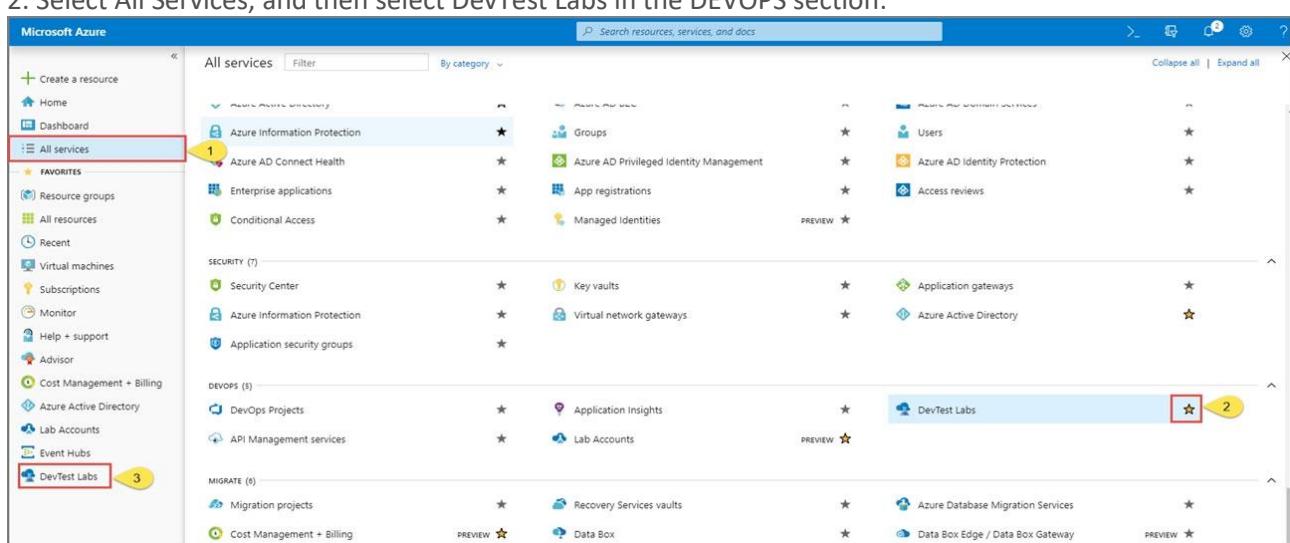
You need to create a virtual machine template in an Azure DevTest Labs environment named az400-9940427-dtl1. The template must be based on Windows Server 2019 Datacenter. Virtual machines created from the template must include the selenium tool and the Google Chrome browser.

To complete this task, sign in to the Microsoft Azure portal.>>>>>>>>>

See explanation below.

1. Open Microsoft Azure Portal

2. Select All Services, and then select DevTest Labs in the DEVOPS section.



3. From the list of labs, select the az400-9940427-dtl1 lab

4. On the home page for your lab, select + Add on the toolbar.

5. Select the Windows Server 2019 Datacenter base image for the VM.

6. Select automation options at the bottom of the page above the Submit button.

7. You see the Azure Resource Manager template for creating the virtual machine.

8. The JSON segment in the resources section has the definition for the image type you selected earlier.

Reference:

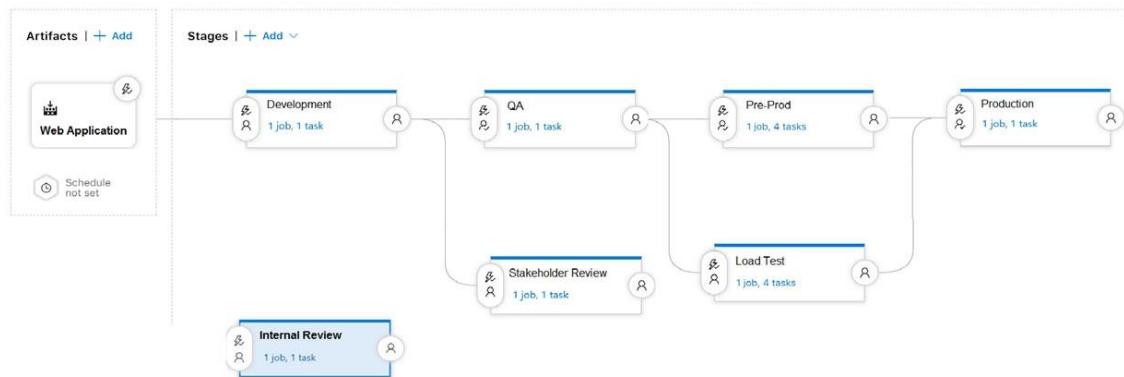
<https://docs.microsoft.com/bs-cyrl-ba/azure//lab-services/devtest-lab-vm-powershell>

>>>>> : 1.Navigate to the already created Dev Test Lab 2.Click on My Virtual Machines (in the left nav menu) 3.Add New 4.Selected the image (Windows datacenter 2016) 5.In the Basics Tab at the bottom click add an artefact 6.Select Selenium and press OK 7.On the VM Creation Menu click on View JSON template (In the Advanced tab) 8.Save it

283.

HOTSPOT -

You are configuring a release pipeline in Azure DevOps as shown in the exhibit.



Use the drop-down menus to select the answer choice that answers each question based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

How many stages have triggers set?

0
1
2
3
4
5
6
7

Which component should you modify to enable continuous delivery?

The Development stage
The Internal Review stage
The Production stage
The Web Application artifact

is: 7 Stages and Artifact

284.

DRAG DROP -

Your company plans to deploy an application to the following endpoints:

Ten virtual machines hosted in Azure

Ten virtual machines hosted in an on-premises data center environment

All the virtual machines have the Azure Pipelines agent.

You need to implement a release strategy for deploying the application to the endpoints.

What should you recommend using to deploy the application to the endpoints? To answer, drag the appropriate components to the correct endpoints. Each component may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Components

Answer Area

A deployment group

Ten virtual machines hosted in Azure:

A deployment group

A management group

Ten virtual machines hosted in

an on-premises data center environment:

A deployment group

A resource group

Application roles

285.

You plan to use Terraform to deploy an Azure resource group from a Windows system.

You need to install the required frameworks to support the planned deployment.

Which two frameworks should you install? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Vault
- B. Terratest
- C. Node.js
- D. Yeoman
- E. Tiller

286.

SIMULATION -

You plan to implement a CI/CD strategy for an Azure Web App named az400-11566895-main.

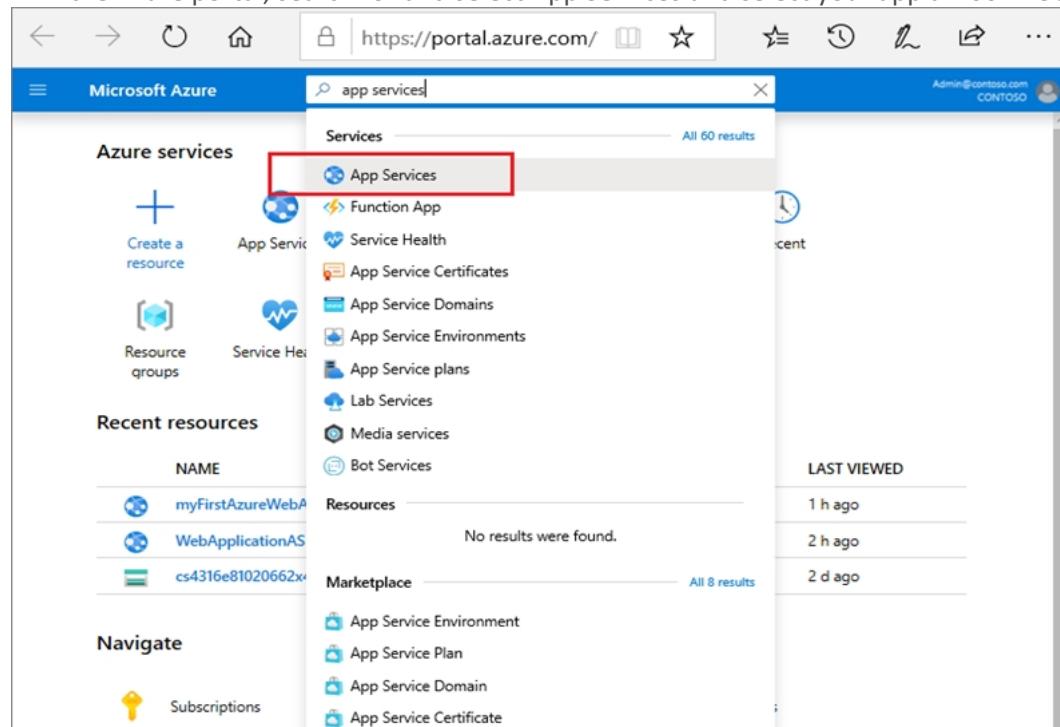
You need to configure a staging environment for az400-11566895-main.

To complete this task, sign in to the Microsoft Azure portal.>>>>>>>>>>>>

See explanation below.

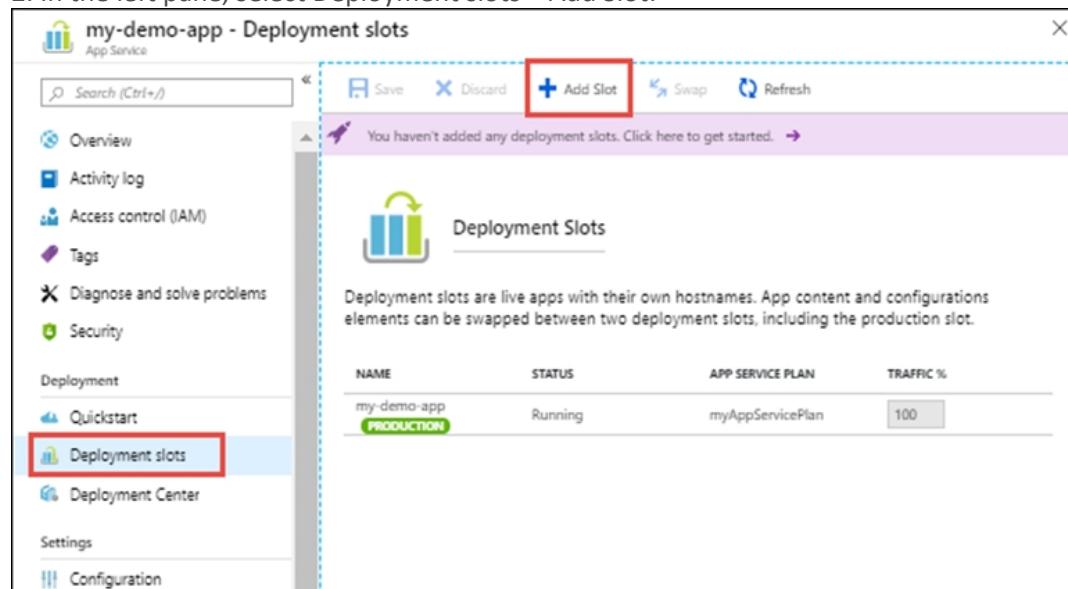
Add a slot -

1. In the Azure portal, search for and select App Services and select your app az400-11566895-main.



The screenshot shows the Microsoft Azure portal interface. The search bar at the top contains the text "app services". Below the search bar, the "Services" section is displayed, listing various Azure services. The "App Services" option is highlighted with a red box. To the left of the main content area, there is a sidebar with sections for "Azure services" (Create a resource, Resource groups), "Recent resources" (myFirstAzureWebA, WebApplicationAS, cs4316e81020662x), and "Navigate" (Subscriptions).

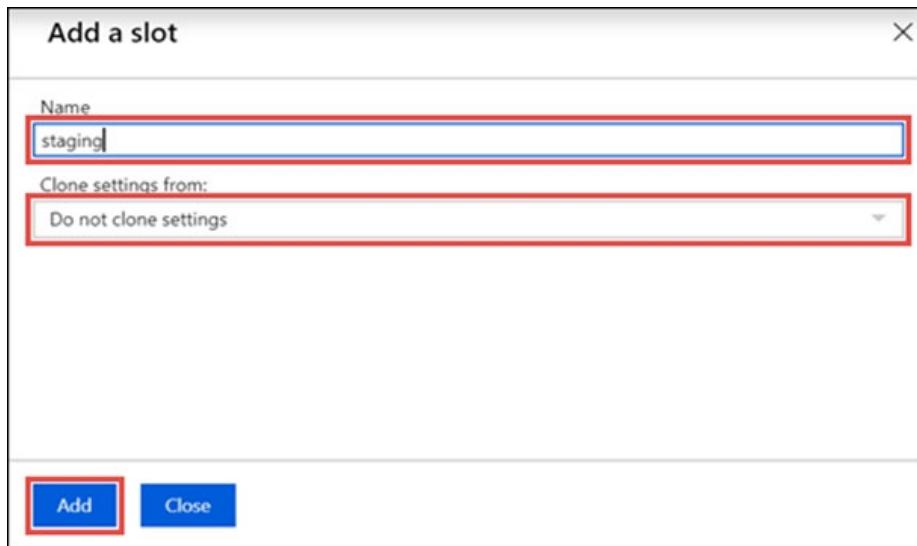
2. In the left pane, select Deployment slots > Add Slot.



The screenshot shows the "my-demo-app - Deployment slots" blade in the Azure portal. The left sidebar has a "Deployment slots" link highlighted with a red box. The main content area displays a table of deployment slots. A new slot has been added, shown in the table with the name "my demo-app" and status "PRODUCTION". The "Add Slot" button in the top toolbar is also highlighted with a red box.

NAME	STATUS	APP SERVICE PLAN	TRAFFIC %
my demo-app	Running	myAppServicePlan	100

3. In the Add a slot dialog box, give the slot a name, and select whether to clone an app configuration from another deployment slot. Select Add to continue.



4. After the slot is added, select Close to close the dialog box. The new slot is now shown on the Deployment slots page.

NAME	STATUS	APP SERVICE PLAN	TRAFFIC %
my-demo-app PRODUCTION	Running	myAppServicePlan	100
my-demo-app-staging	Running	myAppServicePlan	0

Reference:

<https://docs.microsoft.com/en-us/azure/app-service/deploy-staging-slots>

287.

SIMULATION -

You have several apps that use an Azure SQL Database named db1.

You need to ensure that queries to db1 are tuned by Azure over time. The solution must only apply to db1.

To complete this task, sign in to the Microsoft Azure portal.>>>>>>>

See explanation below.

1. To enable automatic tuning on a single database, navigate to the database in the Azure portal and select Automatic tuning.

OPTION	DESIRED STATE	CURRENT STATE
FORCE PLAN	ON OFF INHERIT	ON Inherited from server
CREATE INDEX	ON OFF INHERIT	ON Inherited from server
DROP INDEX	ON OFF INHERIT	ON Forced by user

2. Select the automatic tuning options you want to enable and select Apply.

Note: Individual automatic tuning settings can be separately configured for each database. You can manually configure an individual automatic tuning option, or specify that an option inherits its settings from the server.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/automatic-tuning-enable>

288.

HOTSPOT -

You use Azure Pipelines to manage the build and deployment of apps.

You are planning the release strategies for a new app.

You need to choose strategies for the following scenarios:

Releases will be made available to users who are grouped by their tolerance for software faults.

▪

Code will be deployed to enable functionality that will be available in later releases of the app.

When a new release occurs, the existing deployment will remain active to minimize recovery time if a return to the previous version is required.

Which strategy should you choose for each scenario? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Releases will be made available to users who are grouped by their tolerance for software faults:

Progressive exposure
Blue/green
Feature flags

Code will be deployed to enable functionality that will be available in later releases of the app:

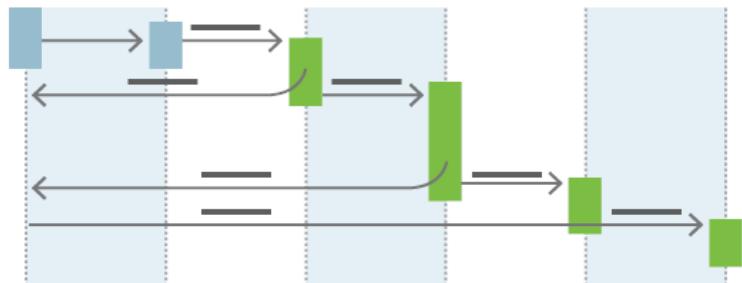
Progressive exposure
Blue/green
Feature flags

When a new release occurs, the existing deployment will remain active to minimize recovery time if a return to the previous version is required:

Progressive exposure
Blue/green
Feature flags

Box 1: Progressive exposure -

Continuous Delivery may sequence multiple deployment *rings* for progressive exposure (also known as *controlling the blast radius*). Progressive exposure groups users who get to try new releases to monitor their experience in *rings*. The first deployment ring is often a *canary* used to test new versions in production before a broader rollout. CD automates deployment from one ring to the next and may optionally depend on an approval step, in which a decision maker signs off on the changes electronically. CD may create an auditable record of the approval in order to satisfy regulatory procedures or other control objectives.



Box 2: Feature flags -

Feature flags support a customer-first DevOps mindset, to enable (expose) and disable (hide) features in a solution, even before they are complete and ready for release.

Box 3: Blue/green -

Blue/green deployments which means that instead of replacing the previous version (here we refer to this version as blue), we bring up the new version (here referred to as the green version) next to the existing version, but not expose it to the actual users right away. On the condition of having successfully validated that the green version works correctly, we will promote this version to the public version by changing the routing configuration without downtime. If something is wrong with the green version we can revert back without users every noticing interruptions.

Reference:

<https://docs.microsoft.com/en-us/azure/devops/learn/what-is-continuous-delivery>

<https://docs.microsoft.com/en-us/azure/devops/migrate/phase-features-with-feature-flags>

<https://medium.com/@dennizielke/continuous-kubernetes-blue-green-deployments-on-azure-using-nginx-appgateway-or-trafficmanager-4490bce29cb>

289.

DRAG DROP -

You have a project in Azure DevOps.

You need to associate an automated test to a test case.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions	Answer Area
Debug the project	Create a test project
Create a test project	Check in a project to the Azure DevOps repository
Create a work item	Add the automated test to a build pipeline
Check in a project to the Azure DevOps repository	
Add the automated test to a build pipeline	

290.

DRAG DROP -

You have an Azure Kubernetes Service (AKS) cluster.

You need to deploy an application to the cluster by using Azure DevOps.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions	Answer Area
Create a service account in the cluster.	
Create a service principal in Azure Active Directory (Azure AD).	
Add an Azure Function App for Container task to the deployment pipeline.	
Add a Helm package and deploy a task to the deployment pipeline.	
Add a Docker Compose task to the deployment pipeline.	
Configure RBAC roles in the cluster.	

correct answer is: 1. Create a service principal in Azure Active Directory 2. Configure RBAC roles in the cluster
3. Add a helm package and deploy a task to the deployment pipeline You shouldn't be using docker composed if you already have helm. Also in the link specified in the answer it explains that you need to configure the required permissions for the service principal (that is why we need number 2)
<https://cloudblogs.microsoft.com/opensource/2018/11/27/tutorial-azure-devops-setup-cicd-pipeline-kubernetes-docker-helm/>

291.

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have an approval process that contains a condition. The condition requires that releases be approved by a team leader before they are deployed.

You have a policy stating that approvals must occur within eight hours.

You discover that deployment fail if the approvals take longer than two hours.

You need to ensure that the deployments only fail if the approvals take longer than eight hours.

Solution: From Post-deployment conditions, you modify the Time between re-evaluation of gates option.

Does this meet the goal?

- A. Yes
- B. No

292.

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You discover that deployment fail if the approvals take longer than two hours.

You need to ensure that the deployments only fail if the approvals take longer than eight hours.

Solution: From Pre-deployment conditions, you modify the Time between re-evaluation of gates option.

Does this meet the goal?

- A. Yes
- B. No

293.

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You need to ensure that the deployments only fail if the approvals take longer than eight hours.

Solution: From Pre-deployment conditions, you modify the Timeout setting for pre-deployment approvals.

Does this meet the goal?

- A. Yes **Most Voted**
- B. No

294.

DRAG DROP -

You are defining release strategies for two applications as shown in the following table.

Application name	Goal
App1	Failure of App1 has a major impact on your company. You need a small group of users, who opted in to a testing App1, to test new releases of the application.
App2	You need to minimize the time it takes to deploy new releases of App2, and you must be able to roll back as quickly as possible.

Which release strategy should you use for each application? To answer, drag the appropriate release strategies to the correct applications. Each release strategy may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Release Strategies

Blue/Green deployment

Canary deployment

Rolling deployment

Answer Area:

App1:

App2:

Correct, see here: <https://docs.microsoft.com/en-us/learn/modules/manage-release-cadence/2-what-are-deployment-pattern> "A canary release is a way to identify potential problems early without exposing all users to the issue. The idea is that we expose a new feature to only a small subset of users before we make it available to everyone." "Blue-green deployment also gives us a fast way to do a rollback. If anything goes wrong in the green environment, then we just switch the router back to the blue environment."

295.

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You need to ensure that the deployments only fail if the approvals take longer than eight hours.

Solution: From Post-deployment conditions, you modify the Timeout setting for post-deployment approvals.

Does this meet the goal?

- A. Yes
- B. No

296.

DRAG DROP -

You have an Azure DevOps organization named Contoso.

You have 10 Azure virtual machines that run Windows Server 2019. The virtual machines host an application that you build and deploy by using Azure Pipelines.

Each virtual machine has the Web Server (IIS) role installed and configured.

You need to ensure that the web server configurations on the virtual machines is maintained automatically. The solution must provide centralized management of the configuration settings and minimize management overhead.

Which four actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions	Answer Area
Create an Azure Automation account.	
Install the custom Desired State Configuration (DSC) extension on the virtual machines.	
Create a .zip file and upload it to Azure Blob storage.	↶ ↷
Onboard the virtual machines to the Azure Automation account.	
Compile the Desired State Configuration (DSC) configuration.	↑ ↓

Create Azure Automation 2. Onboard > On the State Configuration page, select the Nodes tab, then click Add. 3. Install > If the machine doesn't have the PowerShell desired state extension installed and the power state is running, click Connect 4. Compile > By default, the DSC node is checked for compliance with the node configuration every 30 minutes < but we need create conf first. <https://docs.microsoft.com/en-us/azure/automation/automation-dsc-onboarding> <https://docs.microsoft.com/en-us/azure/automation/tutorial-configure-servers-desired-state#check-the-compliance-status-of-a-managed-node>

297.

You have a free tier of an Azure DevOps organization named Contoso. Contoso contains 10 private projects. Each project has multiple jobs with no dependencies. The build process requires access to resource files located in an on-premises file system.

You frequently run the jobs on five self-hosted agents but experience long build times and frequently queued builds. You need to minimize the number of queued builds and the time it takes to run the builds.

What should you do?

- A. Configure the pipelines to use the Microsoft-hosted agents.
- B. Register additional self-hosted agents.
- C. Purchase self-hosted parallel jobs.
- D. Purchase Microsoft-hosted parallel jobs.

298.

SIMULATION -

You need to ensure that an Azure web app named az400-9940427-main supports rolling upgrades. The solution must ensure that only 10 percent of users who connect to az400-9940427-main use update versions of the app.

The solution must minimize administrative effort.

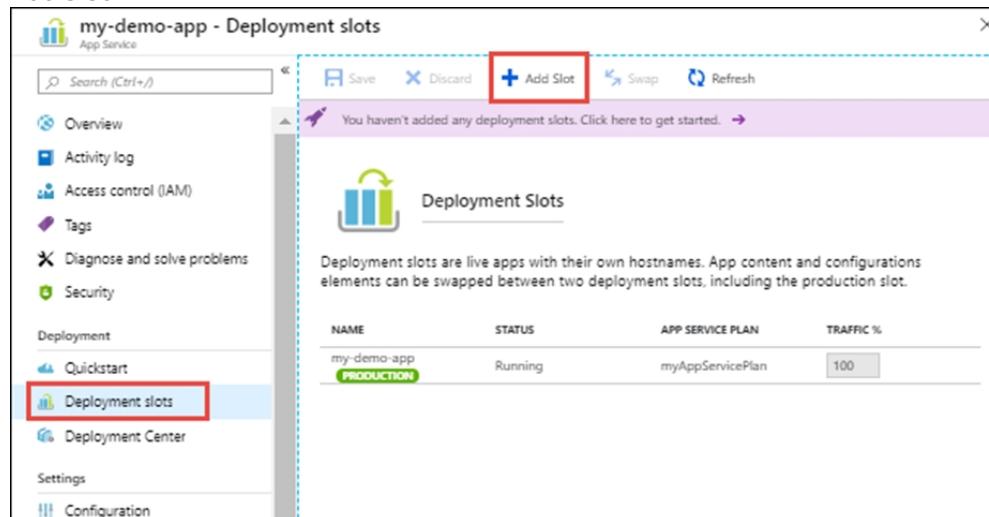
To complete this task, sign in to the Microsoft Azure portal. >>>>>>>>

See explanation below.

Set up staging environments in Azure App Service

1. Open Microsoft Azure Portal

2. Log into your Azure account, select your app's resource page, in the left pane, select Deployment slots > Add Slot.



3. In the Add a slot dialog box, give the slot a name, and select whether to clone an app configuration from another deployment slot. Select Add to continue.

Add a slot

Name
staging

Clone settings from:
Do not clone settings

Add **Close**

4. After the slot is added, select Close to close the dialog box. The new slot is now shown on the Deployment slots page. By default, Traffic % is set to 0 for the new slot, with all customer traffic routed to the production slot.

5. Select the new deployment slot to open that slot's resource page.

my-demo-app - Deployment slots

Search (Ctrl+ /)

Overview Activity log Access control (IAM) Tags Diagnose and solve problems Security Deployment Quickstart Deployment slots Deployment Center Settings Configuration

Deployment Slots

Deployment slots are live apps with their own hostnames. App content and configurations elements can be swapped between two deployment slots, including the production slot.

NAME	STATUS	APP SERVICE PLAN	TRAFFIC %
my-demo-app PRODUCTION	Running	myAppServicePlan	100
my-demo-app-staging	Running	myAppServicePlan	0

6. Change TRAFFIC % to 10

Reference:

<https://docs.microsoft.com/en-us/azure/app-service/deploy-staging-slots>

299.

You have an Azure DevOps project named Project1 and an Azure subscription named Sub1. Sub1 contains an Azure SQL database named DB1.

You need to create a release pipeline that uses the Azure SQL Database Deployment task to update DB1. Which artifact should you deploy?

- A. a BACPAC
- B. a DACPAC
- C. an LDF file
- D. an MDF file

<https://docs.microsoft.com/en-us/azure/devops/pipelines/tasks/deploy/sql-azure-dacpac-deployment?view=azure-devops>

300.

HOTSPOT -

You have a project in Azure DevOps.

You plan to create a build pipeline that will deploy resources by using Azure Resource Manager templates.

The templates will reference secrets stored in Azure Key Vault.

You need to ensure that you can dynamically generate the resource ID of the key vault during template deployment.

What should you include in the template? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
"resources": [
    {
        "apiVersion": "2018-05-01",
        "name": "secrets",
        "type": "Microsoft.KeyVault/vaults",
        "dependsOn": [
            "Microsoft.Resources/deployments",
            "Microsoft.Subscription/subscriptions"
        ],
        "properties": {
            "mode": "Incremental",
            "deployment": {
                "template": "templateLink"
            }
        }
    }
],
```

301.

Your company has a project in Azure DevOps for a new web application.

The company uses ServiceNow for change management.

You need to ensure that a change request is processed before any components can be deployed to the production environment.

What are two ways to integrate ServiceNow into the Azure DevOps release pipeline? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Define a deployment control that invokes the ServiceNow REST API.
- B. Define a pre-deployment gate before the deployment to the Prod stage. **Most Voted**
- C. Define a deployment control that invokes the ServiceNow SOAP API.
- D. Define a post-deployment gate after the deployment to the QA stage. **Most Voted**

302.

Your company develops an application named App1 that is deployed in production.

As part of an application update, a new service is being added to App1. The new service requires access to an application named App2 that is currently in development.

You need to ensure that you can deploy the update to App1 before App2 becomes available. You must be able to enable the service in App1 once App2 is deployed.

What should you do?

- A. Implement a feature flag.
- B. Create a fork in the build.
- C. Create a branch in the build.
- D. Implement a branch policy.

303.

You have a private distribution group that contains provisioned and unprovisioned devices.

You need to distribute a new iOS application to the distribution group by using Microsoft Visual Studio App Center.

What should you do?

- A. Request the Apple ID associated with the user of each device.
- B. Register the devices on the Apple Developer portal.
- C. Create an active subscription in App Center Test.
- D. Add the device owner to the organization in App Center.

304.

You are developing an iOS application by using Azure DevOps.

You need to test the application manually on 10 devices without releasing the application to the public.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Create a Microsoft Intune device compliance policy.
- B. Deploy a certificate from an internal certification authority (CA) to each device.
- C. Register the application in the iTunes store.
- D. Onboard the devices into Microsoft Intune.
- E. Distribute a new release of the application. **Most Voted**
- F. Register the IDs of the devices in the Apple Developer portal. **Most Voted**

305.

You have a private distribution group that contains provisioned and unprovisioned devices.

You need to distribute a new iOS application to the distribution group by using Microsoft Visual Studio App Center.

What should you do?

- A. Select Register devices and sign my app.
- B. Create an active subscription in App Center Test.
- C. Create an unsigned build.
- D. Add the device owner to the collaborators group.

306.

SIMULATION -

You plan to deploy a website that will be hosted in two Azure regions.

You need to create an Azure Traffic Manager profile named az40011566895n1-tm in a resource group named RG1lod11566895. The solution must ensure that users will always connect to a copy of the website that is in the same country.

To complete this task, sign in to the Microsoft Azure portal.>>>>>>>>

See explanation below.

1. Go to the Azure portal, navigate to Traffic Manager profiles and click on the Add button to create a routing profile.

The screenshot shows the Azure Traffic Manager profiles page. At the top, it displays the title 'Traffic Manager profiles' and the Microsoft logo. Below the title, there's a summary section with the text 'Subscriptions: All 4 selected'. Underneath this, there's a search bar with the placeholder 'Filter by name...'. To the right of the search bar is a button labeled 'All subscriptions'. At the bottom of the summary section, it says '22 items'. On the left side of the page, there's a sidebar with a menu icon (three horizontal lines) and a plus sign icon for adding a new profile.

2. In the Create Traffic Manager profile, enter, or select these settings:

Name: az40011566895n1-tm -

Routing method: Geographic -

Resource group: RG1lod11566895 -

Create Traffic Manager profi... □ X

* Name
samplegeoprofile .trafficmanager.net

Routing method
Geographic

* Subscription

* Resource group ⓘ
 Create new Use existing
geoprofilerg

* Resource group location ⓘ
West US

Note: Traffic Manager profiles can be configured to use the Geographic routing method so that users are directed to specific endpoints (Azure, External or Nested) based on which geographic location their DNS query originates from. This empowers Traffic Manager customers to enable scenarios where knowing a user's geographic region and routing them based on that is important.

Reference:

<https://azure.microsoft.com/en-us/blog/announcing-the-general-availability-of-geographic-routing-capability-in-azure-traffic-manager/>

307.

Your company has an on-premises Bitbucket Server that is used for Git-based source control. The server is protected by a firewall that blocks inbound Internet traffic.

You plan to use Azure DevOps to manage the build and release processes.

Which two components are required to integrate Azure DevOps and Bitbucket? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. a deployment group
- B. a Microsoft-hosted agent
- C. service hooks
- D. a self-hosted agent
- E. an External Git service connection

308.

HOTSPOT -

Your company uses Git as a source code control system for a complex app named App1.

You plan to add a new functionality to App1.

You need to design a branching model for the new functionality.

Which branch lifetime and branch time should you use in the branching model? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Branch lifetime:	<input type="button" value="▼"/>
Long-lived	
Short-lived	
Branch type:	<input type="button" value="▼"/>
Master	
Feature	
Integration	

309.

You have a project in Azure DevOps.

You plan to deploy a self-hosted agent by using an unattended configuration script.

Which two values should you define in the configuration script? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. authorization credentials
- B. the project name
- C. the deployment group name
- D. the organization URL
- E. the agent pool name

310.

HOTSPOT -

You have an Azure virtual machine named VM1 that runs Linux.

You plan to deploy the Desired State Configuration (DSC) extension to VM1.

You need to grant the Log Analytics agent the appropriate directory permissions.

How should you complete the command? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

`setfacl -m u:omsagent:`

<input type="button" value="▼"/>
r
x
rx
<input checked="" type="checkbox"/> rwx

<input type="button" value="▼"/>
/lib
/etc
<input checked="" type="checkbox"/> /tmp
/usr

311.

HOTSPOT -

You are using PowerShell to administer Azure Log Analytics workspaces.

You need to list the available workspaces and their properties.

How should you complete the command? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

<input type="button" value="▼"/>
Get-AzResource
Get-AzResourceGroup
Get-AzResourceProvider

Microsoft.OperationalInsights/workspaces - ExpandProperties

| |
| -ResourceGroupName |
| -ResourceId |
| -ResourceType |

312.

You have Azure Pipelines and GitHub integrated as a source code repository.

The build pipeline has continuous integration enabled.

You plan to trigger an automated build whenever code changes are committed to the repository.

You need to ensure that the system will wait until a build completes before queuing another build.

What should you implement?

- A. path filters
- B. batch changes
- C. scheduled builds
- D. branch filters

313.

You are using GitHub as a source code repository.

You create a client-side Git hook on the commit-msg event. The hook requires that each commit message contain a custom work item tag.

You need to make a commit that does not have a work item tag.

Which git commit parameter should you use?

- A. --squash
- B. --no-verify
- C. --message "
- D. --no-post-rewrite

314.

Introductory Info This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

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To start the case study -

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

General Overview -

Woodgrove Bank is a financial services company that has a main office in the United Kingdom.

Technical Requirements and Planned Changes

Planned Changes -

Woodgrove Bank plans to implement the following project management changes:

Implement Azure DevOps for project tracking.

Centralize source code control in private GitHub repositories.

Implement Azure Pipelines for build pipelines and release pipelines.

Woodgrove Bank plans to implement the following changes to the identity environment:

Deploy an Azure AD tenant named woodgrovebank.com.

Sync the Active Directory domain to Azure AD.

Configure App1 to use a service principal.

Integrate GitHub with Azure AD.

Woodgrove Bank plans to implement the following changes to the core apps:

Migrate App1 to ASP.NET Core.

Integrate Azure Pipelines and the third-party build tool used to develop App2.

Woodgrove Bank plans to implement the following changes to the DevOps environment:

Deploy App1 to Azure App Service.

Implement source control for the DB1 schema.

Migrate all the source code from TFS1 to GitHub.

Deploy App2 to an Azure virtual machine named VM1.

Merge the POC branch into the GitHub default branch.

Implement an Azure DevOps dashboard for stakeholders to monitor development progress.

Technical Requirements -

Woodgrove Bank identifies the following technical requirements:

The initial databases for new environments must contain both schema and reference data.

An Azure Monitor alert for VM1 must be configured to meet the following requirements:

- Be triggered when average CPU usage exceeds 80 percent for 15 minutes.

- Calculate CPU usage averages once every minute.

The commit history of the POC branch must replace the history of the default branch.

The Azure DevOps dashboard must display the metrics shown in the following table.

Number	Required data
1	A comparison between the work the development team planned to deliver and what was delivered
2	The status of the environments in a release definition
3	The total number of results from a work item query

Access to Azure DevOps must be restricted to specific IP addresses.

Page load times for App1 must be captured and monitored.

Administrative effort must be minimized.

Question HOTSPOT -

You need to configure the alert for VM1. The solution must meet the technical requirements.

Which two settings should you configure? To answer, select the appropriate settings in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Alert logic

Threshold ⓘ
Static Dynamic

Operator ⓘ
Greater than

Aggregation type * ⓘ
Average

Threshold value * ⓘ %

Condition preview

Whenever the average percentage cpu is greater than <logic undefined> %

Evaluated based on

Aggregation granularity (Period) * ⓘ
5 minutes

Frequency of evaluation ⓘ
Every 1 Minute

Setting 1: Threshold value -

Set to 80 %

Scenario: An Azure Monitor alert for VM1 must be configured to meet the following requirements:

Be triggered when average CPU usage exceeds 80 percent for 15 minutes.

Calculate CPU usage averages once every minute.

Setting 2: Aggregation granularity

Set to 15 minutes.

315.

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- Be triggered when average CPU usage exceeds 80 percent for 15 minutes.

- Calculate CPU usage averages once every minute.

The commit history of the POC branch must replace the history of the default branch.

The Azure DevOps dashboard must display the metrics shown in the following table:

Number	Required data
1	A comparison between the work the development team planned to deliver and what was delivered
2	The status of the environments in a release definition
3	The total number of results from a work item query

Access to Azure DevOps must be restricted to specific IP addresses.

Page load times for App1 must be captured and monitored.

Administrative effort must be minimized. **Question DRAG DROP -**

You are configuring the Azure DevOps dashboard. The solution must meet the technical requirements. Which widget should you use for each metric? To answer, drag the appropriate widgets to the correct metrics. Each widget may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Widgets	Metrics
Velocity	
Query tile	
Query results	1: []
Sprint burndown	2: []
Cumulative flow diagram	3: []
Release pipeline overview	

1.Burndown 2. Release Pipeline Overview 3. Query Tile

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Introductory Info Case Study -

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Overview -

Litware, Inc. is an independent software vendor (ISV). Litware has a main office and five branch offices.

Existing Environment -

Application Architecture -

The company's primary application is a single monolithic retirement fund management system based on ASP.NET web forms that use logic written in VB.NET.

Some new sections of the application are written in C#.

Variations of the application are created for individual customers. Currently, there are more than 80 live code branches in the application's code base.

The application was developed by using Microsoft Visual Studio. Source code is stored in Team Foundation Server (TFS) in the main office. The branch offices access the source code by using TFS proxy servers.

Architectural Issues -

Litware focuses on writing new code for customers. No resources are provided to refactor or remove existing code. Changes to the code base take a long time, as dependencies are not obvious to individual developers.

Merge operations of the code often take months and involve many developers. Code merging frequently introduces bugs that are difficult to locate and resolve.

Customers report that ownership costs of the retirement fund management system increase continually. The need to merge unrelated code makes even minor code changes expensive.

Customers report that bug reporting is overly complex.

Requirements -

Planned Changes -

Litware plans to develop a new suite of applications for investment planning. The investment planning applications will require only minor integration with the existing retirement fund management system. The investment planning applications suite will include one multi-tier web application and two iOS mobile applications. One mobile application will be used by employees; the other will be used by customers.

Litware plans to move to a more agile development methodology. Shared code will be extracted into a series of packages.

Litware has started an internal cloud transformation process and plans to use cloud-based services whenever suitable.

Litware wants to become proactive in detecting failures, rather than always waiting for customer bug reports.

Technical Requirements -

The company's investment planning applications suite must meet the following technical requirements:

New incoming connections through the firewall must be minimized.

Members of a group named Developers must be able to install packages.

The principle of least privilege must be used for all permission assignments.

A branching strategy that supports developing new functionality in isolation must be used.

Members of a group named Team Leaders must be able to create new packages and edit the permissions of package feeds.

Visual Studio App Center must be used to centralize the reporting of mobile application crashes and device types in use.

By default, all releases must remain available for 30 days, except for production releases, which must be kept for 60 days.

Code quality and release quality are critical. During release, deployments must not proceed between stages if any active bugs are logged against the release.

The mobile applications must be able to call the share pricing service of the existing retirement fund management system. Until the system is upgraded, the service will only support basic authentication over HTTPS.

The required operating system configuration for the test servers changes weekly. Azure Automation State Configuration must be used to ensure that the operating system on each test server is configured the same way when the servers are created and checked periodically.

Current Technical Issue -

The test servers are configured correctly when first deployed, but they experience configuration drift over time. Azure Automation State Configuration fails to correct the configurations.

Azure Automation State Configuration nodes are registered by using the following command.

```
Register-AzureRmAutomationDscNode
    -ResourceGroupName 'TestResourceGroup'
    -AutomationAccountName 'LitwareAutomationAccount'
    -AzureVMName $vmname
    -ConfigurationMode 'ApplyOnly'
```

QuestionHOTSPOT -

How should you complete the code to initialize App Center in the mobile application? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
MSAppCenter.start  
( "{Your App Secret}",  
  withServices:  
)
```

[MSAnalytics.self,
[MSDistribute.self,
[MSPush.self,

MSAnalytics.self]
MSCrashes.self]
MSDistribute.self]

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Overview -

Contoso, Ltd. is a manufacturing company that has a main office in Chicago.

Existing Environment -

Contoso plans to improve its IT development and operations processes by implementing Azure DevOps principles.

Contoso has an Azure subscription and creates an Azure DevOps organization.

The Azure DevOps organization includes:

The Docker extension

A deployment pool named Pool7 that contains 10 Azure virtual machines that run Windows Server 2019

The Azure subscription contains an Azure Automation account.

Requirements -

Planned changes -

Contoso plans to create projects in Azure DevOps as shown in the following table.

Project name	Project details
Project 1	Project1 will provide support for incremental builds and third-party SDK components
Project 2	Project2 will use an automatic build policy. A small team of developers named Team2 will work independently on changes to the project. The Team2 members will not have permissions to Project2.
Project 3	Project3 will be integrated with SonarQube
Project 4	Project4 will provide support for a build pipeline that creates a Docker image and pushes the image to the Azure Container Registry. Project4 will use an existing Dockerfile.
Project 5	Project5 will contain a Git repository in Azure Repos and a continuous integration trigger that will initiate a build in response to any change except for changes within /folder1 of the repository.
Project 6	Project6 will provide support for build and deployment pipelines. Deployment will be allowed only if the number of current work items representing active software bugs is 0.
Project 7	Project7 will contain a target deployment group named Group7 that maps to Pool7. Project7 will use Azure Automation State Configuration to maintain the desired state of the computers in Group7.

Technical requirements -

Contoso identifies the following technical requirements:

Implement build agents for Project1.

Whenever possible, use Azure resources.

Avoid using deprecated technologies.

Implement a code flow strategy for Project2 that will:

- Enable Team2 to submit pull requests for Project2.
- Enable Team2 to work independently on changes to a copy of Project2.
- Ensure that any intermediary changes performed by Team2 on a copy of Project2 will be subject to the same restrictions as the ones defined in the build policy of Project2.

Whenever possible, implement automation and minimize administrative effort.

Implement Project3, Project5, Project6, and Project7 based on the planned changes.

Implement Project4 and configure the project to push Docker images to Azure Container Registry.

• Question You add the virtual machines as managed nodes in Azure Automation State Configuration.

You need to configure the managed computers in Pool7.

What should you do next?

- A. Modify the RefreshMode property of the Local Configuration Manager (LCM).
- B. Run the Register-AzureRmAutomationDscNode Azure Powershell cmdlet.
- C. **Modify the ConfigurationMode property of the Local Configuration Manager (LCM).**
- D. Install PowerShell Core.

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Planned changes -

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Technical requirements -

Contoso identifies the following technical requirements:

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Whenever possible, use Azure resources.

Avoid using deprecated technologies.

Implement a code flow strategy for Project2 that will:

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- Ensure that any intermediary changes performed by Team2 on a copy of Project2 will be subject to the same restrictions as the ones defined in the build policy of Project2.

Whenever possible, implement automation and minimize administrative effort.

Implement Project3, Project5, Project6, and Project7 based on the planned changes.

Implement Project4 and configure the project to push Docker images to Azure Container Registry.

• **Question** DRAG DROP -

You need to implement the code flow strategy for Project2 in Azure DevOps. Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions	Answer Area
Create a fork	Create a repository
Create a branch	Create a fork
Add a build policy for the fork	Add a build policy for the fork
Add a build policy for the master branch	
Create a repository	
Add an application access policy.	

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Requirements -

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Contoso identifies the following technical requirements:

Implement build agents for Project1.

Whenever possible, use Azure resources.

Avoid using deprecated technologies.

Implement a code flow strategy for Project2 that will:

- Enable Team2 to submit pull requests for Project2.
- Enable Team2 to work independently on changes to a copy of Project2.
- Ensure that any intermediary changes performed by Team2 on a copy of Project2 will be subject to the same restrictions as the ones defined in the build policy of Project2.

Whenever possible, implement automation and minimize administrative effort.

Implement Project3, Project5, Project6, and Project7 based on the planned changes.

Implement Project4 and configure the project to push Docker images to Azure Container Registry.

▪ **Question** DRAG DROP -

You need to configure Azure Automation for the computers in Pool7.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions	Answer Area
Run the <code>Import-AzureRmAutomationDscConfiguration</code> Azure PowerShell cmdlet.	Create a Desired State Configuration (DSC) configuration file that has an extension of .ps1.
Create a Desired State Configuration (DSC) configuration file that has an extension of .ps1.	Run the <code>Import-AzureRmAutomationDscConfiguration</code> Azure PowerShell cmdlet.
Run the <code>New-AzureRmResourceGroupDeployment</code> Azure PowerShell cmdlet.	<input checked="" type="radio"/> Run the <code>Start-AzureRmAutomationDscCompilationJob</code> Azure PowerShell cmdlet. <input checked="" type="radio"/> Run the <code>Start-AzureRmAutomationDscCompilationJob</code> Azure PowerShell cmdlet.
Run the <code>Start-AzureRmAutomationDscCompilationJob</code> Azure PowerShell cmdlet.	
Create an Azure Resource Manager template file that has an extension of .json.	

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Overview -

Litware, Inc. is an independent software vendor (ISV). Litware has a main office and five branch offices.

Existing Environment -

Application Architecture -

The company's primary application is a single monolithic retirement fund management system based on ASP.NET web forms that use logic written in VB.NET.

Some new sections of the application are written in C#.

Variations of the application are created for individual customers. Currently, there are more than 80 live code branches in the application's code base.

The application was developed by using Microsoft Visual Studio. Source code is stored in Team Foundation Server (TFS) in the main office. The branch offices access the source code by using TFS proxy servers.

Architectural Issues -

Litware focuses on writing new code for customers. No resources are provided to refactor or remove existing code. Changes to the code base take a long time, as dependencies are not obvious to individual developers.

Merge operations of the code often take months and involve many developers. Code merging frequently introduces bugs that are difficult to locate and resolve.

Customers report that ownership costs of the retirement fund management system increase continually. The need to merge unrelated code makes even minor code changes expensive.

Customers report that bug reporting is overly complex.

Requirements -

Planned Changes -

Litware plans to develop a new suite of applications for investment planning. The investment planning applications will require only minor integration with the existing retirement fund management system. The investment planning applications suite will include one multi-tier web application and two iOS mobile applications. One mobile application will be used by employees; the other will be used by customers.

Litware plans to move to a more agile development methodology. Shared code will be extracted into a series of packages.

Litware has started an internal cloud transformation process and plans to use cloud-based services whenever suitable.

Litware wants to become proactive in detecting failures, rather than always waiting for customer bug reports.

Technical Requirements -

The company's investment planning applications suite must meet the following technical requirements:

New incoming connections through the firewall must be minimized.
Members of a group named Developers must be able to install packages.
The principle of least privilege must be used for all permission assignments.
A branching strategy that supports developing new functionality in isolation must be used.
Members of a group named Team Leaders must be able to create new packages and edit the permissions of package feeds.
Visual Studio App Center must be used to centralize the reporting of mobile application crashes and device types in use.
By default, all releases must remain available for 30 days, except for production releases, which must be kept for 60 days.
Code quality and release quality are critical. During release, deployments must not proceed between stages if any active bugs are logged against the release.
The mobile applications must be able to call the share pricing service of the existing retirement fund management system. Until the system is upgraded, the service will only support basic authentication over HTTPS.
The required operating system configuration for the test servers changes weekly. Azure Automation State Configuration must be used to ensure that the operating system on each test server is configured the same way when the servers are created and checked periodically.

Current Technical Issue -

The test servers are configured correctly when first deployed, but they experience configuration drift over time. Azure Automation State Configuration fails to correct the configurations.

Azure Automation State Configuration nodes are registered by using the following command.

```
Register-AzureRmAutomationDscNode  
-ResourceGroupName 'TestResourceGroup'  
-AutomationAccountName 'LitwareAutomationAccount'  
-AzureVMName $vmname  
-ConfigurationMode 'ApplyOnly'
```

QuestionHOTSPOT -

How should you configure the release retention policy for the investment planning depletions suite? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Required secrets:

Certificate
Personal access token
Shared Access Authorization token
Username and password

Storage location:

Azure Data Lake
Azure Key Vault
Azure Storage with HTTPS access
Azure Storage with HTTP access

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```

QuestionHOTSPOT -

You need to configure a cloud service to store the secrets required by the mobile applications to call the share pricing service.

What should you include in the solution? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Required secrets:

Certificate
Personal access token
Shared Access Authorization token
Username and password

Storage location:

Azure Data Lake
Azure Key Vault
Azure Storage with HTTP access
Azure Storage with HTTPS access

Answer is : 1. Username and password 2. key vault

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Visual Studio App Center must be used to centralize the reporting of mobile application crashes and device types in use.

By default, all releases must remain available for 30 days, except for production releases, which must be kept for 60 days.

Code quality and release quality are critical. During release, deployments must not proceed between stages if any active bugs are logged against the release.

The mobile applications must be able to call the share pricing service of the existing retirement fund management system. Until the system is upgraded, the service will only support basic authentication over HTTPS.

The required operating system configuration for the test servers changes weekly. Azure Automation State Configuration must be used to ensure that the operating system on each test server is configured the same way when the servers are created and checked periodically.

Current Technical Issue -

The test servers are configured correctly when first deployed, but they experience configuration drift over time. Azure Automation State Configuration fails to correct the configurations.

Azure Automation State Configuration nodes are registered by using the following command.

```
Register-AzureRmAutomationDscNode  
    -ResourceGroupName 'TestResourceGroup'  
    -AutomationAccountName 'LitwareAutomationAccount'  
    -AzureVMName $vmname  
    -ConfigurationMode 'ApplyOnly'
```

Question DRAG DROP -

Which package feed access levels should be assigned to the Developers and Team Leaders groups for the investment planning applications suite? To answer, drag the appropriate access levels to the correct groups. Each access level may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Access Levels	Answer Area
Collaborator	Developers: <input type="text"/>
Contributor	Team Leaders: <input type="text"/>
Owner	
Reader	

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Overview -

General Overview -

Woodgrove Bank is a financial services company that has a main office in the United Kingdom.

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Planned Changes -

Woodgrove Bank plans to implement the following project management changes:

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Centralize source code control in private GitHub repositories.

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Merge the POC branch into the GitHub default branch.

Implement an Azure DevOps dashboard for stakeholders to monitor development progress.

Technical Requirements -

Woodgrove Bank identifies the following technical requirements:

The initial databases for new environments must contain both schema and reference data.

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- Be triggered when average CPU usage exceeds 80 percent for 15 minutes.

- Calculate CPU usage averages once every minute.

The commit history of the POC branch must replace the history of the default branch.

The Azure DevOps dashboard must display the metrics shown in the following table.

Number	Required data
1	A comparison between the work the development team planned to deliver and what was delivered.
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Access to Azure DevOps must be restricted to specific IP addresses.

Page load times for App1 must be captured and monitored.

Administrative effort must be minimized. **Question** You need to meet the technical requirements for controlling access to Azure DevOps.

What should you use?

- A. Azure Multi-Factor Authentication (MFA)
- B. on-premises firewall rules
- C. conditional access policies in Azure AD
- D. Azure role-based access control (Azure RBAC)

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Administrative effort must be minimized. **Question** You need to configure Azure Pipelines to control App2 builds.

Which authentication method should you use?

- A. Windows NTLM
- B. certificate
- C. SAML
- D. personal access token (PAT)

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Question DRAG DROP -
You need to configure authentication for App1. The solution must support the planned changes.

Which three actions should you perform in sequence? To answer, move all actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions Commands Cmdlets Statements	Answer Area
Create an app.	
Add a secret.	
Create a credential.	
Configure the ID and secret for App1.	
Create a managed service identity.	

Requirements state that a service principal shall be created (though managed identity would be a better choice). Correct order would be: - Create an app - Add a secret - Configure the ID and secret for App1 Ref: <https://docs.microsoft.com/en-us/azure/active-directory/develop/howto-create-service-principal-portal>

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Administrative effort must be minimized.

Question DRAG DROP -

You need to replace the existing DevOps tools to support the planned changes.

What should you use? To answer, drag the appropriate tools to the correct targets. Each tool may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:

Tools	Answer Area
Azure Artifacts	Trello: <input type="checkbox"/> Azure Boards
GitHub Actions	Bamboo: <input type="checkbox"/> Azure Pipelines
	BitBucket: <input type="checkbox"/> GitHub repositories
Azure Test Plans	

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Page load times for App1 must be captured and monitored.

Administrative effort must be minimized. **Question** You need to perform the GitHub code migration. The solution must support the planned changes for the DevOps environment.

What should you use?

- A. git clone
- B. GitHub Importer
- C. Import repository in Azure Repos
- D. **git-tfs**

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Overview -

Contoso, Ltd. is a manufacturing company that has a main office in Chicago.

Existing Environment -

Contoso plans to improve its IT development and operations processes by implementing Azure DevOps principles. Contoso has an Azure subscription and creates an Azure DevOps organization.

The Azure DevOps organization includes:

The Docker extension

A deployment pool named Pool7 that contains 10 Azure virtual machines that run Windows Server 2019
The Azure subscription contains an Azure Automation account.

Requirements -

Planned changes -

Contoso plans to create projects in Azure DevOps as shown in the following table.

Project name	Project details
Project 1	Project1 will provide support for incremental builds and third-party SDK components
Project 2	Project2 will use an automatic build policy. A small team of developers named Team2 will work independently on changes to the project. The Team2 members will not have permissions to Project2.
Project 3	Project3 will be integrated with SonarQube
Project 4	Project4 will provide support for a build pipeline that creates a Docker image and pushes the image to the Azure Container Registry. Project4 will use an existing Dockerfile.
Project 5	Project5 will contain a Git repository in Azure Repos and a continuous integration trigger that will initiate a build in response to any change except for changes within /folder1 of the repository.
Project 6	Project6 will provide support for build and deployment pipelines. Deployment will be allowed only if the number of current work items representing active software bugs is 0.
Project 7	Project7 will contain a target deployment group named Group7 that maps to Pool7. Project7 will use Azure Automation State Configuration to maintain the desired state of the computers in Group7.

Technical requirements -

Contoso identifies the following technical requirements:

Implement build agents for Project1.

Whenever possible, use Azure resources.

Avoid using deprecated technologies.

Implement a code flow strategy for Project2 that will:

- Enable Team2 to submit pull requests for Project2.
- Enable Team2 to work independently on changes to a copy of Project2.
- Ensure that any intermediary changes performed by Team2 on a copy of Project2 will be subject to the same restrictions as the ones defined in the build policy of Project2.

Whenever possible, implement automation and minimize administrative effort.

Implement Project3, Project5, Project6, and Project7 based on the planned changes.

Implement Project4 and configure the project to push Docker images to Azure Container Registry.**QuestionHOTSPOT** -

How should you configure the filters for the Project5 trigger? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Set a	/folder1.
<input type="checkbox"/> branch filter to exclude <input type="checkbox"/> branch filter to include <input type="checkbox"/> path filter to exclude <input type="checkbox"/> path filter to include	
Set a	./
<input type="checkbox"/> branch filter to exclude <input type="checkbox"/> branch filter to include <input type="checkbox"/> path filter to exclude <input type="checkbox"/> path filter to include	

@

it's -Path filter to exclude -Path filter to include Because './' is not the name of a branch. Check this example:
<https://docs.microsoft.com/en-us/azure/devops/pipelines/repos/azure-repos-git?view=azure-devops&tabs=yaml#wildcards>

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Implement Project3, Project5, Project6, and Project7 based on the planned changes.

Implement Project4 and configure the project to push Docker images to Azure Container Registry. **Question** In Azure DevOps, you create Project3.

You need to meet the requirements of the project.

What should you do first?

- A. From Azure DevOps, modify the build definition.
- B. From SonarQube, obtain an authentication token.
- C. From Azure DevOps, create a service endpoint. **Correct**
- D. From SonarQube, create a project.

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Whenever possible, implement automation and minimize administrative effort.

Implement Project3, Project5, Project6, and Project7 based on the planned changes.

Implement Project4 and configure the project to push Docker images to Azure Container Registry. **Question** You need to implement Project4.

What should you do first?

- A. Add the FROM instruction in the Dockerfile file.
- B. Add a Copy and Publish Build Artifacts task to the build pipeline.
- C. Add a Docker task to the build pipeline.
- D. Add the MAINTAINER instruction in the Dockerfile file.

331.

Introductory InfoCase Study -

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Overview -

Contoso, Ltd. is a manufacturing company that has a main office in Chicago.

Existing Environment -

Contoso plans to improve its IT development and operations processes by implementing Azure DevOps principles. Contoso has an Azure subscription and creates an Azure DevOps organization.

The Azure DevOps organization includes:

The Docker extension

A deployment pool named Pool7 that contains 10 Azure virtual machines that run Windows Server 2019

The Azure subscription contains an Azure Automation account.

Requirements -

Planned changes -

Contoso plans to create projects in Azure DevOps as shown in the following table.

Project name	Project details
Project 1	Project1 will provide support for incremental builds and third-party SDK components
Project 2	Project2 will use an automatic build policy. A small team of developers named Team2 will work independently on changes to the project. The Team2 members will not have permissions to Project2.
Project 3	Project3 will be integrated with SonarQube
Project 4	Project4 will provide support for a build pipeline that creates a Docker image and pushes the image to the Azure Container Registry. Project4 will use an existing Dockerfile.
Project 5	Project5 will contain a Git repository in Azure Repos and a continuous integration trigger that will initiate a build in response to any change except for changes within /folder1 of the repository.
Project 6	Project6 will provide support for build and deployment pipelines. Deployment will be allowed only if the number of current work items representing active software bugs is 0.
Project 7	Project7 will contain a target deployment group named Group7 that maps to Pool7. Project7 will use Azure Automation State Configuration to maintain the desired state of the computers in Group7.

Technical requirements -

Contoso identifies the following technical requirements:

Implement build agents for Project1.

Whenever possible, use Azure resources.

Avoid using deprecated technologies.

Implement a code flow strategy for Project2 that will:

- Enable Team2 to submit pull requests for Project2.

- Enable Team2 to work independently on changes to a copy of Project2.

- Ensure that any intermediary changes performed by Team2 on a copy of Project2 will be subject to the same restrictions as the ones defined in the build policy of Project2.

Whenever possible, implement automation and minimize administrative effort.

Implement Project3, Project5, Project6, and Project7 based on the planned changes.

Implement Project4 and configure the project to push Docker images to Azure Container Registry.**QuestionDRAG DROP -**

You need to recommend a procedure to implement the build agent for Project1.

Which three actions should you recommend be performed in sequence? To answer, move the appropriate

actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions	Answer Area
Sign in to Azure DevOps by using an account that is assigned the Administrator service connection security role.	Sign in to Azure DevOps by using an account that is assigned the Administrator service connection security role.
Install the Azure Pipelines agent on on-premises virtual machine.	Create a personal access token in the Azure DevOps organization of Contoso.
Create a personal access token in the Azure DevOps organization of Contoso.	Install and register the Azure Pipelines agent on an Azure virtual machine.
Install and register the Azure Pipelines agent on an Azure virtual machine.	
Sign in to Azure DevOps by using an account that is assigned the agent pool administrator role.	

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- Ensure that any intermediary changes performed by Team2 on a copy of Project2 will be subject to the same restrictions as the ones defined in the build policy of Project2.

Whenever possible, implement automation and minimize administrative effort.

Implement Project3, Project5, Project6, and Project7 based on the planned changes.

Implement Project4 and configure the project to push Docker images to Azure Container Registry. **Question DRAG DROP** -

You need to implement Project6.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions	Answer Area
Open the release pipeline editor.	Open the release pipeline editor.
Disable the continuous integration trigger.	Enable Gates.
Enable Gates.	Add Query Work Items.
Add a manual intervention task.	
Open the Triggers tab.	
Add Query Work Items.	

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Overview -

Litware, Inc. is an independent software vendor (ISV). Litware has a main office and five branch offices.

Existing Environment -

Application Architecture -

The company's primary application is a single monolithic retirement fund management system based on ASP.NET web forms that use logic written in VB.NET.

Some new sections of the application are written in C#.

Variations of the application are created for individual customers. Currently, there are more than 80 live code branches in the application's code base.

The application was developed by using Microsoft Visual Studio. Source code is stored in Team Foundation Server (TFS) in the main office. The branch offices access the source code by using TFS proxy servers.

Architectural Issues -

Litware focuses on writing new code for customers. No resources are provided to refactor or remove existing code. Changes to the code base take a long time, as dependencies are not obvious to individual developers.

Merge operations of the code often take months and involve many developers. Code merging frequently introduces bugs that are difficult to locate and resolve.

Customers report that ownership costs of the retirement fund management system increase continually. The need to merge unrelated code makes even minor code changes expensive.

Customers report that bug reporting is overly complex.

Requirements -

Planned Changes -

Litware plans to develop a new suite of applications for investment planning. The investment planning applications will require only minor integration with the existing retirement fund management system.

The investment planning applications suite will include one multi-tier web application and two iOS mobile applications. One mobile application will be used by employees; the other will be used by customers.

Litware plans to move to a more agile development methodology. Shared code will be extracted into a series of packages.

Litware has started an internal cloud transformation process and plans to use cloud-based services whenever suitable.

Litware wants to become proactive in detecting failures, rather than always waiting for customer bug reports.

Technical Requirements -

The company's investment planning applications suite must meet the following technical requirements:

New incoming connections through the firewall must be minimized.

Members of a group named Developers must be able to install packages.

The principle of least privilege must be used for all permission assignments.

A branching strategy that supports developing new functionality in isolation must be used.

Members of a group named Team Leaders must be able to create new packages and edit the permissions of package feeds.

Visual Studio App Center must be used to centralize the reporting of mobile application crashes and device types in use.

By default, all releases must remain available for 30 days, except for production releases, which must be kept for 60 days.

Code quality and release quality are critical. During release, deployments must not proceed between stages if any active bugs are logged against the release.

The mobile applications must be able to call the share pricing service of the existing retirement fund management system. Until the system is upgraded, the service will only support basic authentication over HTTPS.

The required operating system configuration for the test servers changes weekly. Azure Automation State Configuration must be used to ensure that the operating system on each test server is configured the same way when the servers are created and checked periodically.

Current Technical Issue -

The test servers are configured correctly when first deployed, but they experience configuration drift over time. Azure Automation State Configuration fails to correct the configurations.

Azure Automation State Configuration nodes are registered by using the following command.

```
Register-AzureRmAutomationDscNode  
-ResourceGroupName 'TestResourceGroup'  
-AutomationAccountName 'LitwareAutomationAccount'  
-AzureVMName $vmname  
-ConfigurationMode 'ApplyOnly'
```

Question

To resolve the current technical issue, what should you do to the Register-AzureRmAutomationDscNode command?

- A. Change the value of the ConfigurationMode parameter.
- B. Replace the Register-AzureRmAutomationDscNode cmdlet with Register-AzureRmAutomationScheduledRunbook
- C. Add the AllowModuleOverwrite parameter.
- D. Add the DefaultProfile parameter.

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```

Question Which branching strategy should you recommend for the investment planning applications suite?

- A. release isolation
- B. main only
- C. development isolation
- D. feature isolation

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QuestionWhat should you use to implement the code quality restriction on the release pipeline for the investment planning applications suite?

- A. a pre-deployment approval
- B. a deployment gate
- C. a post-deployment approval
- D. a trigger

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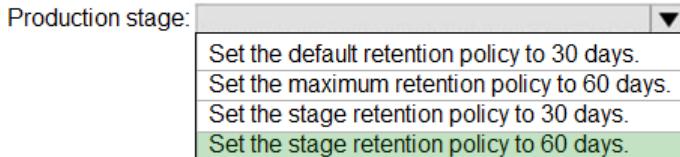
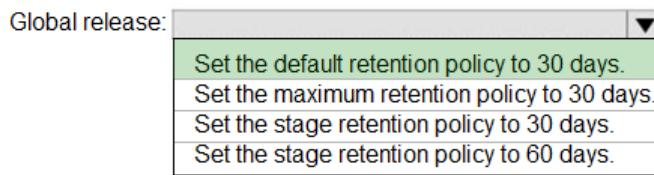
QuestionHOTSPOT -

How should you configure the release retention policy for the investment planning applications suite? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area



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```

Question HOTSPOT -

Where should the build and release agents for the investment planning applications suite run? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Build agent:

A hosted service

A source control system

The developers' computers

Release agent:

A hosted service

A source control system

The developers' computers

For both selections, the correct answer is **hosted service**. The build agent can't be hosted in the source control system.