Testpassport考試指南

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Exam : **AZ-400**

Title : Designing and Implementing Microsoft DevOps Solutions

Version : DEMO

1. Topic 1, Litware inc. Case Study: 1

Overview
Existing Environment
Litware, Inc. an independent software vendor (ISV) Litware has a main office and five branch offices.
Application Architecture
The company's primary application is a single monolithic retirement fund management system based on ASP.NE T web forms that use logic written in V8.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 have 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 of 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.

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 easting 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 package.
Litware has started an internal cloud transformation process and plans to use cloud based services whenever suitable.
Litware wants to become proactive m detecting failures, rather than always waning 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 App Center must be used to centralize the reporting of mobile application crashes and device types in use.
• 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 HUPS.
• The required operating system configuration tor the test servers changes weekly. Azure Automation State Configuration must be used to ensure that the operating system on each test servers configured the same way when the servers are created and checked periodically.

Current Technical
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 $vname
  -ConfigurationMode 'ApplyOnly'
```

HOTSPOT
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 a worth one point.

```
MSAppCenter.start
( "{Your App Secret}",
   withServices:
)
```

[MSAnalytics.self,	MSAnalytics.self]
[MSDistribute.self,	MSCrashes.self]
[MSPush.self,	MSDistribute.self]

Answer:

```
MSAppCenter.start
( "{Your App Secret}",
   withServices:
)
```

[MSAnalytics.self,	MSAnalytics.self]
[MSDistribute.self,	MSCrashes.self]
[MSPush.self,	MSDistribute.self]

Explanation:

Scenario: Visual Studio App Center must be used to centralize the reporting of mobile application crashes and device types in use.

In order to use App Center, you need to opt in to the service(s) that you want to use, meaning by default no services are started and you will have to explicitly call each of them when starting the SDK.

Insert the following line to start the SDK in your app's App Delete class in the didFinishLaunchingWithOptions method.

MSAppCenter.start("{Your App Secret}", withServices: [MSAnalytics.self, MSCrashes.self])

Reference: https://docs.microsoft.com/en-us/appcenter/sdk/getting-started/ios

2.HOTSPOT

How should you confrere 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.

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:

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 |

Explanation:

Every request made against a storage service must be authorized, unless the request is for a blob or container resource that has been made available for public or signed access. One option for authorizing a request is by using Shared Key.

Scenario: 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 investment planning applications suite will include one multi-tier web application and two iOS mobile application. One mobile application will be used by employees; the other will be used by customers.
Reference: https://docs.microsoft.com/en-us/rest/api/storageservices/authorize-with-shared-key

3.HOTSPOT
You need to configure a cloud service to store the secrets required by the mobile applications to call the share.
What should you include in the solution? To answer, select the appropriate options m the answer area,
NOTE: Each correct selection is worth one point.

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:

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 |

4.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.
Answer: A

Explanation:

Change the ConfigurationMode parameter from ApplyOnly to ApplyAndAutocorrect.

The Register-AzureRmAutomationDscNode cmdlet registers an Azure virtual machine as an APS

Desired State Configuration (DSC) node in an Azure Automation account.

Scenario: 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.

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   -ConfigurationMode 'ApplyOnly'
```

References: https://docs.microsoft.com/en-us/powershell/module/azurerm.automation/register-azurermautomationdscnode?view=azurermps-6.13.0

5.What should you use to implement the code quality restriction on the release pipeline for the investment planning applications suite?

A. a trigger

B. a pre deployment approval

C. a post-deployment approval

D. a deployment gate

Answer: B