Microsoft Azure Certification AZ-220 Exam

![PL PassLeader - Leader of IT Certifications]

> ➢ **Vendor: Microsoft**

> ➢ **Exam Code: AZ-220**

> ➢ **Exam Name: Microsoft Azure IoT Developer**
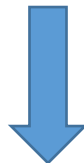
NEW QUESTION 1
You plan to deploy a standard tier Azure IoT hub. You need to perform an over-the-air (OTA) update on devices that will connect to the IoT hub by using scheduled jobs. What should you use?

A. a device-to-cloud message
B. the device twin reported properties
C. a cloud-to-device message
D. a direct method

Answer: D
Explanation:
Releases via the REST API. All of the operations that can be performed from the Console can also be automated using the REST API. You might do this to automate your build and release process, for example. You can build firmware using the Particle CLI or directly using the compile source code API.
https://docs.particle.io/tutorials/device-cloud/ota-updates/

NEW QUESTION 2
You have an IoT device that gathers data in a CSV file named Sensors.csv. You deploy an Azure IoT hub that is accessible at ContosoHub.azure-devices.net. You need to ensure that Sensors.csv is uploaded to the IoT hub. Which two actions should you perform? (Each correct answer presents part of the solution. Choose two.)

A. Upload Sensors.csv by using the IoT Hub REST API.
B. From the Azure subscription, select the IoT hub, select Message routing, and then configure a route to storage.
C. From the Azure subscription, select the IoT hub, select File upload, and then configure a storage container.
D. Configure the device to use a GET request to ContosoHub.azure-devices.net/devices/ContosoDevice1/files/notifications.

Answer: AC
Explanation:
C: To use the file upload functionality in IoT Hub, you must first associate an Azure Storage account with your hub. Select File upload to display a list of file upload properties for the IoT hub that is being modified. For Storage container: Use the Azure portal to select a blob container in an Azure Storage account in your current Azure subscription to associate with your IoT Hub. If necessary, you can create an Azure Storage account on the Storage accounts blade and blob container on the Containers.
A: IoT Hub has an endpoint specifically for devices to request a SAS URI for storage to upload a file. To start the file upload process, the device sends a POST request to {iot hub}.azure-devices.net/devices/{deviceId}/files with the following JSON body:
{
"blobName": "{name of the file for which a SAS URI will be generated}"
}
Incorrect:
Not D: Deprecated: initialize a file upload with a GET. Use the POST method instead.
https://github.com/MicrosoftDocs/azure-docs/blob/master/articles/iot-hub/iot-hub-configure-file-upload.md

NEW QUESTION 3
You have an existing Azure IoT hub. You need to connect physical IoT devices to the IoT hub. You are connecting the devices through a firewall that allows only port 443 and port 80. Which three communication protocols can you use? (Each correct answer presents a complete solution. Choose three.)

A.   MQTT over WebSocket
B.   AMQP
C.   AMQP over WebSocket
D.   MQTT
E.   HTTPS

Answer: ACE
Explanation:
MQTT over WebSockets, AMQP over WebSocket, and HTTPS use port 443.
https://docs.microsoft.com/en-us/azure/iot-hub/iot-hub-devguide-protocols

NEW QUESTION 4
You have an Azure IoT solution that includes an Azure IoT hub and 100 Azure IoT Edge devices. You plan to deploy the IoT Edge devices to external networks. The firewalls of the external networks only allow traffic on port 80 and port 443. You need to ensure that the devices can connect to the IoT hub. The solution must minimize costs. What should you do?

A.   Configure the devices for extended offline operations.
B.   Configure the upstream protocol of the devices to use MQTT over WebSocket.
C.   Connect the external networks to the IoT solution by using ExpressRoute.
D.   Configure the devices to use an HTTPS proxy.

Answer: B
Explanation:
MQTT over WebSockets uses port 443.
https://docs.microsoft.com/en-us/azure/iot-hub/iot-hub-devguide-protocols

NEW QUESTION 5
Drag and Drop
You deploy an Azure IoT hub. You need to demonstrate that the IoT hub can receive messages from a device. 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.)
......

Answer:

......
Explanation:
Step 1: Register a device in IoT Hub. Before you can use your IoT devices with Azure IoT Edge, you must register them with your IoT hub. Once a device is registered, you can retrieve a connection string to set up your device for IoT Edge workloads.
Step 2: Configure the device connection string on a device client. When you're ready to set up your device, you need the connection string that links your physical device with its identity in the IoT hub.
Step 3: Trigger a new send event from a device client.
https://docs.microsoft.com/en-us/azure/iot-edge/how-to-register-device

NEW QUESTION 6
You have devices that connect to an Azure IoT hub. Each device has a fixed GPS location that includes latitude and longitude. You discover that a device entry in the identity registry of the IoT hub is missing the GPS location. You need to configure the GPS location for the device entry. The solution must prevent the changes from being propagated to the physical device.
Solution: You add tags to the device twin.
Does the solution meet the goal?

A.   Yes
B.   No

Answer: B
Explanation:
Instead add the desired properties to the device twin.
https://azure.microsoft.com/sv-se/blog/deep-dive-into-azure-iot-hub-notifications-and-device-twin/

NEW QUESTION 7
You have devices that connect to an Azure IoT hub. Each device has a fixed GPS location that includes latitude and longitude. You discover that a device entry in the identity registry of the IoT hub is missing the GPS location. You need to configure the GPS location for the device entry. The solution must prevent the changes from being propagated to the physical device.
Solution: You add the desired properties to the device twin.
Does the solution meet the goal?

A.   Yes
B.   No

Answer: A
Explanation:
Device Twins are used to synchronize state between an IoT solution's cloud service and its devices. Each device's twin exposes a set of desired properties and reported properties. The cloud service populates the desired properties with values it wishes to send to the device. When a device connects it requests and/or subscribes for its desired properties and acts on them.
https://azure.microsoft.com/sv-se/blog/deep-dive-into-azure-iot-hub-notifications-and-device-twin/

NEW QUESTION 8
You have three Azure IoT hubs named Hub1, Hub2, and Hub3, a Device Provisioning Service instance, and an IoT device named Device1. Each IoT hub is deployed to a separate Azure region. Device enrollment uses the Lowest latency allocation policy. The Device Provisioning Service uses the Lowest latency allocation policy. Device1 is auto-provisioned to Hub1 by using the Device Provisioning Service. Device1 regularly moves between regions. You need to ensure that Device1 always connects to the IoT hub that has the lowest latency. What should you do?

A.   Configure device attestation that uses X.509 certificates.
B.   Implement device certificate rolling.
C.   Disenroll and reenroll Device1.
D.   Configure the re-provisioning policy.

Answer: D
Explanation:
Automated re-provisioning support. Microsoft added first-class support for device re-provisioning which allows devices to be reassigned to a different IoT solution sometime after the initial solution assignment.
https://azure.microsoft.com/en-us/blog/new-year-newly-available-iot-hub-device-provisioning-service-features/

NEW QUESTION 9
Hotspot
You have an Azure IoT Central application that has a custom device template. You need to configure the device template to support the following activities:
- Return the reported power consumption.
- Configure the desired fan speed.
- Run the device reset routine.

- Read the fan serial number.
Which option should you use for each activity? (To answer, select the appropriate options in the answer area.)
......

Answer:

......
Explanation:
Box 1: Measurement. Telemetry/measurement is a stream of values sent from the device, typically from a sensor. For example, a sensor might report the ambient temperature.
Box 2: Property. The template can provide a writeable fan speed property. Properties represent point-in-time values. For example, a device can use a property to report the target temperature it's trying to reach. You can set writeable properties from IoT Central.
Box 3: Settings.
Box 4: Command. You can call device commands from IoT Central. Commands optionally pass parameters to the device and receive a response from the device. For example, you can call a command to reboot a device in 10 seconds.
https://docs.microsoft.com/en-us/azure/iot-central/core/howto-set-up-template

NEW QUESTION 10
You have an existing Azure IoT hub. You use IoT Hub jobs to schedule long running tasks on connected devices. Which three operations do the IoT Hub jobs support directly? (Each correct answer presents a complete solution. Choose three.)

A.   Trigger Azure functions.
B.   Invoke direct methods.
C.   Update desired properties.
D.   Send cloud-to-device messages.
E.   Disable IoT device registry entries.
F.   Update tags.

Answer: BCF
Explanation:
Consider using jobs when you need to schedule and track progress any of the following activities on a set of devices:
- Invoke direct methods
- Update desired properties
- Update tags
https://docs.microsoft.com/en-us/azure/iot-hub/iot-hub-devguide-jobs

NEW QUESTION 11
You have an Azure IoT hub that uses a Device Provisioning Service instance to automate the deployment of Azure IoT Edge devices. The IoT Edge devices have a Trusted Platform Module (TPM) 2.0 chip. From the Azure portal, you plan to add an individual enrollment to the Device Provisioning Service that will use the TPM of the IoT Edge devices as the attestation mechanism. Which detail should you obtain before you can create the enrollment.

A.   The scope ID and the Device Provisioning Service endpoint.
B.   The primary key of the Device Provisioning Service shared access policy and the global device endpoint.
C.   The X.509 device certificate and the certificate chain.
D.   The endorsement key and the registration ID.

Answer: D
Explanation:

AZ-220 Exam Dumps   **AZ-220 Exam Questions**   **AZ-220 PDF Dumps**   **AZ-220 VCE Dumps**
Back to the Source of this PDF & Get More Free Braindumps -- www.microsoftbraindumps.com

The TPM simulator's Registration ID and the Endorsement key, are used when you create an individual enrollment for your device.
https://docs.microsoft.com/en-us/azure/iot-edge/how-to-auto-provision-simulated-device-linux

NEW QUESTION 12
You have 100 devices that connect to an Azure IoT hub. You plan to use Azure functions to process all the telemetry messages from the devices before storing the messages. You need to configure the functions binding for the IoT hub. Which two configuration details should you use to configure the binding? (Each correct answer presents part of the solution. Choose two.)

A.   The name of the resource group that contains the IoT hub.
B.   The IoT hub's connection string shared access key that has Service connect permissions.
C.   The connection string of the Azure Event Hub-compatible endpoint from the IoT Hub built-in endpoints.
D.   The Azure Event-Hub compatible name.

Answer: CD
Explanation:
- EventHubName: Functions 2.x and higher. The name of the event hub. When the event hub name is also present in the connection string, that value overrides this property at runtime.
- Connection: The name of an app setting that contains the connection string to the event hub's namespace. Copy this connection string by clicking the Connection Information button for the namespace, not the event hub itself. This connection string must have send permissions to send the message to the event stream.
https://docs.microsoft.com/en-us/azure/azure-functions/functions-bindings-event-iot-output

NEW QUESTION 13
You are troubleshooting an Azure IoT hub. You discover that some telemetry messages are dropped before they reach downstream processing. You suspect that IoT Hub throttling is the root cause. Which log in the Diagnostics settings of the IoT hub should you use to capture the throttling error events?

A.   Routes
B.   DeviceTelemetry
C.   Connections
D.   C2DCommands

Answer: B
Explanation:
The device telemetry category tracks errors that occur at the IoT hub and are related to the telemetry pipeline. This category includes errors that occur when sending telemetry events (such as throttling) and receiving telemetry events (such as unauthorized reader). This category cannot catch errors caused by code running on the device itself. Note: The metric d2c.telemetry.ingress.sendThrottle is the number of throttling errors due to device throughput throttles.
https://docs.microsoft.com/en-us/azure/iot-hub/iot-hub-monitor-resource-health

NEW QUESTION 14
You have an Azure IoT solution that includes a standard tier Azure IoT hub and an IoT device. The device sends one 100-KB device-to-cloud message every hour. You need to calculate the total daily message consumption of the device. What is the total daily message consumption of the device?

A.   24
B.   600

C.   2,400
D.   4,800

Answer: B
Explanation:
100 KB * 24 is around 2,400 bytes. The 100 KB message is divided into 4 KB blocks, and it is billed for 25 messages. 25 times 24 is 600. Note: The maximum message size for messages sent from a device to the cloud is 256 KB. These messages are metered in 4 KB blocks for the paid tiers so for instance if the device sends a 16 KB message via the paid tiers it will be billed as 4 messages.
https://azure.microsoft.com/en-us/pricing/details/iot-hub/

NEW QUESTION 15
You have an Azure IoT hub that is being taken from prototype to production. You plan to connect IoT devices to the IoT hub. The devices have hardware security modules (HSMs). You need to use the most secure authentication method between the devices and the IoT hub. Company policy prohibits the use of internally generated certificates. Which authentication method should you use?

A.   An X.509 self-signed certificate.
B.   A certificate thumbprint.
C.   A symmetric key.
D.   An X.509 certificate signed by a root certification authority (CA).

Answer: D
Explanation:
Purchase X.509 certificates from a root certificate authority (CA). This method is recommended for production environments. The hardware security module, or HSM, is used for secure, hardware-based storage of device secrets, and is the most secure form of secret storage. Both X.509 certificates and SAS tokens can be stored in the HSM.
https://docs.microsoft.com/en-us/azure/iot-dps/concepts-security

Case Study 1 - Contoso 1
Contoso produces a set of Bluetooth sensors that read the temperature and humidity. The sensors connect to IoT gateway devices that relay the data. All the IoT gateway devices connect to an Azure IoT hub named iothub1.
......

NEW QUESTION 41
Hotspot
You create a new IoT device named device1 on iothub1. Device1 has a primary key of Uihuih76hbHb. How should you complete the device connection string? (To answer, select the appropriate options in the answer area.)
......

Answer:
......
Explanation:
Box 1: iothub1. The Azure IoT hub is named iothub1.
Box 2: azure-devices.net. The format of the device connection string looks like:
HostName={YourIoTHubName}.azure-devices.net;DeviceId=MyNodeDevice;SharedAccessKey={YourSharedAccessKey}
Box 3: device1. Device1 has a primary key of Uihuih76hbHb.
https://docs.microsoft.com/en-us/azure/iot-hub/quickstart-control-device-dotnet

Case Study 2 - Contoso 2
Contoso produces a set of Bluetooth sensors that read the temperature and humidity. The sensors

connect to IoT gateway devices that relay the data. All the IoT gateway devices connect to an Azure IoT hub named iothub1.
......

NEW QUESTION 42
What should you do to identify the cause of the connectivity issues?

A.   Send cloud-to-device messages to the IoT devices.
B.   Use the heartbeat pattern to send messages from the IoT devices to iothub1.
C.   Monitor the connection status of the device twin by using an Azure function.
D.   Enable the collection of the Connections diagnostics logs and set up alerts for the connected devices count metric.

Answer: D
Explanation:
Scenario: You discover connectivity issues between the IoT gateway devices and iothub1, which cause IoT devices to lose connectivity and messages.
https://docs.microsoft.com/bs-cyrl-ba/azure/iot-hub/iot-hub-troubleshoot-connectivity

Case Study 3 - Contoso 3
Contoso produces a set of Bluetooth sensors that read the temperature and humidity. The sensors connect to IoT gateway devices that relay the data. All the IoT gateway devices connect to an Azure IoT hub named iothub1.
......

NEW QUESTION 43
You plan to deploy Azure Time Series Insights. What should you create on iothub1 before you deploy Time Series Insights?

A.   a new message route
B.   a new consumer group
C.   a new shared access policy
D.   an IP filter rule

Answer: B
Explanation:
Create a dedicated consumer group in the IoT hub for the Time Series Insights environment to consume from. Each Time Series Insights event source must have its own dedicated consumer group that isn't shared with any other consumer. If multiple readers consume events from the same consumer group, all readers are likely to exhibit failures.
https://docs.microsoft.com/en-us/azure/time-series-insights/time-series-insights-how-to-add-an-event-source-iothub

NEW QUESTION 44
How should you complete the GROUP BY clause to meet the Streaming Analytics requirements?

A.   GROUP BY HoppingWindow(Second, 60, 30)
B.   GROUP BY TumblingWindow(Second, 30)
C.   GROUP BY SlidingWindow(Second, 30)
D.   GROUP BY SessionWindow(Second, 30, 60)

Answer: B
Explanation:
Scenario: You plan to use a 30-second period to calculate the average temperature reading of the sensors. Tumbling window functions are used to segment a data stream into distinct time segments

and perform a function against them, such as the example below. The key differentiators of a Tumbling window are that they repeat, do not overlap, and an event cannot belong to more than one tumbling window.
Incorrect:
Not A: Hopping window functions hop forward in time by a fixed period. It may be easy to think of them as Tumbling windows that can overlap, so events can belong to more than one Hopping window result set.
https://docs.microsoft.com/en-us/azure/stream-analytics/stream-analytics-window-functions

NEW QUESTION 45

......

Case Study 4 - Contoso 4
Contoso produces a set of Bluetooth sensors that read the temperature and humidity. The sensors connect to IoT gateway devices that relay the data. All the IoT gateway devices connect to an Azure IoT hub named iothub1.

......

NEW QUESTION 46
You need to enable telemetry message tracing through the entire IoT solution. What should you do?

A.   Monitor device lifecycle events.
B.   Upload IoT device logs by using the File upload feature.
C.   Enable the DeviceTelemetry diagnostic log and stream the log data to an Azure event hub.
D.   Implement distributed tracing.

Answer: D
Explanation:
IoT Hub is one of the first Azure services to support distributed tracing. As more Azure services support distributed tracing, you'll be able trace IoT messages throughout the Azure services involved in your solution.
https://docs.microsoft.com/en-us/azure/iot-hub/iot-hub-distributed-tracing

Case Study 5 - ADatum 1
ADatum is developing an Azure IoT solution to monitor environmental conditions. The IoT solution consists of hardware devices and cloud services. All the devices will communicate directly to Azure IoT Hub. The hardware devices will be deployed to the branch offices and will collect data about various environmental conditions such as temperature, humidity, air quality, and noise level. The devices will be wired by using Power over Ethernet (PoE) connections. ADatum is developing the solution in the following three phases: proof of value (POV), pilot, and production.

......

NEW QUESTION 47
You need to configure Stream Analytics to meet the POV requirements. What are two ways to achieve the goal? (Each correct answer presents a complete solution. Choose two.)

A.   From IoT Hub, create a custom event hub endpoint, and then configure the endpoint as an input to Stream Analytics.
B.   Create a Stream Analytics module, and then deploy the module to all IoT Edge devices in the fleet.
C.   Create an input in Stream Analytics that uses the built-in events endpoint of IoT Hub as the source.
D.   Route telemetry to an Azure Blob storage custom endpoint, and then configure the Blob storage as a reference input for Stream Analytics.

AZ-220 Exam Dumps   AZ-220 Exam Questions   AZ-220 PDF Dumps   AZ-220 VCE Dumps
Back to the Source of this PDF & Get More Free Braindumps -- www.microsoftbraindumps.com

Answer: AC

NEW QUESTION 48
You need to store the real-time alerts generated by Stream Analytics to meet the technical requirements. Which type of Stream Analytics output should you configure?

A.   Azure Blob Storage
B.   Microsoft Power BI
C.   Azure Cosmos DB
D.   Azure SQL Database
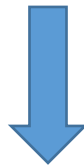
Answer: A
Explanation:
When you create a Time Series Insights Preview pay-as-you-go (PAYG) SKU environment, you create two Azure resources: An Azure Storage general-purpose V1 blob account for cold data storage. An Azure Time Series Insights Preview environment that can be configured for warm data storage.
https://docs.microsoft.com/en-us/azure/time-series-insights/time-series-insights-update-storage-ingress

NEW QUESTION 49
......

Get Complete Version Exam AZ-220 Dumps with VCE and PDF Here

https://www.passleader.com/az-220.html