Free Questions for HFCP by actualtestdumps

Shared by Haney on 22-07-2024

For More Free Questions and Preparation Resources

Check the Links on Last Page

Question 1

Question Type: MultipleChoice

Which channel feature allows organizations to run different versions of Hyperledger Fabric on their peer nodes?

Options:

A- Endorsement policies

B- Channel capabilities

C- Consensus protocols

D- Anchor peers

Answer:

B

Explanation:

Hyperledger Fabric allows different versions of the platform to coexist and interoperate on the same network through the use of channel capabilities. Channel capabilities enable organizations running different versions of Fabric binaries to participate on the same channel. These capabilities govern the features that are used by peer nodes and set the minimum version of the Fabric binaries that can be run

by peers joined to the channel. This allows for heterogeneous network environments where different nodes might be running different versions of Fabric software .

Question 2

Question Type: MultipleChoice

Which ordering does Pluggable Consensus support for Hyperledger Fabric?

Options:

A- CFT (Crash Fault Tolerant) only

B- PCFT (Pure Crash Fault-Tolerant)

C- BFT (Byzantine Fault-Tolerant) only

D- Proof of BFT (Byzantine Fault-Tolerant)

Answer:

A

Explanation:

Hyperledger Fabric supports pluggable consensus mechanisms that allow the system to be tailored to specific trust assumptions of a deployment. The platform allows for the implementation of various consensus protocols, including Crash Fault Tolerant (CFT) and Byzantine Fault Tolerant (BFT). However, the specific support for only CFT or BFT would depend on the implementation choice within the context of the deployment's trust model. Fabric's modular architecture supports well-established consensus protocols for both CFT and BFT .

Question 3

Question Type: MultipleChoice

Which directory is created by the idemixgen tool along with the ca directory and msp directory when configuring membership?

Options:

A- config directory

B- user directory

C- orderer directory

D- tlscacerts directory

Answer:

B

Explanation:

Theidemixgentool is used to create configuration files for the Identity Mixer based MSP (Membership Service Provider) in Hyperledger Fabric.When configuring membership, theidemixgentool creates three directories:/ca/,/msp/, and/user/1. The/ca/directory contains the issuer secret key, issuer public key, and revocation key, which should only be present for a Certificate Authority (CA). The/msp/directory contains the issuer public key and revocation public key, which are required to set up an MSP that verifies Identity Mixer signatures.The/user/directory specifies a default signer configuration1. Therefore, the correct answer is the user directory, which is created alongside the ca and msp directories by theidemixgentool.

Question 4

Question Type: MultipleChoice

Each peer in the Hyperledger Fabric network hosts a copy of the ledger, which also belongs to what component?

Options:

A- The membership services

B- The Ordering node

C- The NoSQL databases

D- A member channel

Answer:

D

Explanation:

In Hyperledger Fabric, each peer in the network hosts a copy of the ledger, which is associated with a member channel. The ledger itself is comprised of a blockchain to store the immutable, sequenced record in blocks, and a state database to maintain the current state of the ledger. There is one ledger per channel, and each peer maintains a copy of the ledger for each channel of which they are a member .

Question 5

Question Type: MultipleChoice

What is the purpose of the ordering service in Hyperledger Fabric model?

Options:

A- To endorse transactions and update the world state.

B- To manage the identities of the participants in the network

C- To assemble transactions into blocks for the blockchain ledqer.

D- To validate transactions and maintain the blockchain ledqer

Answer:

C

Explanation:

The primary purpose of the ordering service in Hyperledger Fabric is to assemble transactions into blocks and ensure their correct sequencing on the blockchain ledger. This service takes validated transactions, orders them chronologically, and packages them into blocks. These blocks are then distributed to all peers on the network for final validation and commitment to their respective ledgers. This process is crucial for maintaining the integrity and consistency of the ledger across the distributed network. The ordering service does not manage identities or endorse transactions, nor does it validate transactions or directly maintain the blockchain ledger beyond the sequencing and packaging of transactions.

Question 6

Question Type: MultipleChoice

What is the difference between chaincode, transaction, and block events?

Options:

A- Use setEvent, setTransactionEvent, setBlockEvent to emit chaincode, transaction and block events in the chaincode.

B- Chaincode events must be programmed in the smart contract, transaction and block events work out of the box

C- They are pretty much the same both regarding functionality and programming effort as well.

D- Block events must be programmed in the smart contract, chaincode events work out of the box.

Answer:

B

Explanation:

In Hyperledger Fabric, chaincode events, transaction events, and block events serve different purposes and are emitted differently. Chaincode events must be explicitly programmed into the smart contract. Developers need to use the setEvent method within the chaincode to emit custom events that applications can listen to. On the other hand, transaction and block events are generated by the system automatically. These events notify listening applications of new blocks added to the chain or transactions included in blocks, without requiring any additional programming effort within the smart contracts.

Question 7

Question Type: **MultipleChoice**

The peer and the orderer host an HTTP server that offers a RESTful operations API (Operations Service). Which of the following function is unprovided as an Operation Service API?

Options:

A- Get log data

B- Get metrics

C- Set log level

D- Do health check

Answer:

C

Explanation:

The Operations Service API hosted on the HTTP server by the peer and the orderer in Hyperledger Fabric does not provide the functionality to set the log level. This API is primarily designed to offer operational insights and controls like retrieving log data, fetching metrics, and performing health checks. The ability to dynamically adjust the log level via this API is not supported, as logging levels are typically configured statically through configuration files or environment variables at the time of node startup. This design helps maintain the integrity and stability of the operational log data.

Question 8

Question Type: MultipleChoice

What Fabric Gateway client API call could a client application use to update ledger state?

Options:

A- Evaluate

B- Invoke

C- Update

D- Submit

Answer:

D

Explanation:

In the context of the Fabric Gateway client API, the call that a client application would use to update the ledger state isSubmit1. TheSubmitfunction combines the actions of endorsing a transaction proposal, submitting the transaction to the ordering service, and waiting for the transaction to be committed to the ledger into a single blocking call. This simplifies the process for the client application, allowing it to update the ledger state with a single line of code.TheEvaluatecall, on the other hand, is used to query the current state of the ledger without making any updates2.There are noInvokeorUpdatecalls in the Fabric Gateway client API as per the official documentation

Question 9

Question Type: MultipleChoice

When reading and modifying the ledger state in Hyperledger Fabric, what type of schema does the data stored in the ledger need to adhere if the state database is LevelDB?

Options:

A- No specific schema is required

B- JSON schema

C- XML schema

D- CSV schema

Answer:

A

Explanation:

When using LevelDB as the state database in Hyperledger Fabric, there is no specific schema that the data stored in the ledger needs to adhere to. LevelDB is a key-value store, which does not enforce any schema on the data it holds. This flexibility allows applications to define their own formats and structures for the data they store, which can vary from simple strings and numbers to more complex serialized data structures. This schema-less nature of LevelDB enables developers to implement the data handling that best suits their application's needs without the constraints of a predefined database schema.

Question 10

Question Type: MultipleChoice

What is the role of the endorsement policy in the context of Hyperledger Fabric's chaincode?

Options:

A- Define which organizations are allowed to read the ledger.

B- Define the organizations that have permission to execute a transaction.

C- Define which orderers will order transactions into a block.

D- Define the organizations that must sign a transaction proposal.

Answer:

D

Explanation:

In the context of Hyperledger Fabric's chaincode, the endorsement policy plays a crucial role in defining the organizations that must sign a transaction proposal before it can be considered valid. This policy specifies which members of the network must agree (endorse) a transaction for it to be executed. The policy can require signatures from one or more specific organizations, depending on the chaincode's business logic and the network's governance requirements. This ensures that transactions are agreed upon by the relevant stakeholders, maintaining the integrity and trust within the network.

Question 11

Question Type: **MultipleChoice**

Which arguments must be supplied when a client application uses the Fabric Gateway client API to create a Gateway connection to a Fabric network?

Options:

A- connection and client identity

B- Connection profile and client private key

C- Client public key and signing implementation

D- Client X.509 certificate and private key

Answer:

D

Explanation:

When a client application uses the Fabric Gateway client API to create a Gateway connection to a Hyperledger Fabric network, it must supply the client's X.509 certificate and private key. The X.509 certificate is used to authenticate the client to the network, confirming the client's identity and permissions. The private key is used for signing transactions, which is necessary for the network to validate the integrity and origin of the transactions submitted by the client. This combination ensures that both the identity of the client is verified and that transactions cannot be tampered with without detection.

Question 12

Question Type: MultipleChoice

When creating a gRPC connection to the Gateway peer using Transport Layer Security (TLS), what information must be supplied by the client application?

Options:

A- The Gateway peer host name, service port number, and a TLS host name override.

B- A common connection profile that includes the Gateway peer address and TLS certificate.

C- The endpoint address of the Gateway peer and the certificate of the TLS certificate authority.

D- The client private key and the public key of the TLS certificate authority.

Answer:

C

Explanation:

When creating a gRPC connection to the Gateway peer in Hyperledger Fabric using Transport Layer Security (TLS), the client application must supply the endpoint address of the Gateway peer and the certificate of the TLS certificate authority. This configuration is essential to establish a secure communication channel. The endpoint address specifies where the Gateway peer is located, which the client uses to connect. The certificate of the TLS certificate authority is crucial for validating the identity of the Gateway peer, ensuring that the connection is secure and that the data being transmitted is encrypted. This setup helps prevent man-in-the-middle attacks and ensures that sensitive data remains confidential during transmission.