THE
Hashgraph
ASSOCIATION

HEDERA Certification

Friday 17th February 2023

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Certification

Timing:

Heads up:	17-FEB-2023 13:00 CET || 07:00 EST
Test sent to you by email:	17-FEB-2023 13:15 CET || 07:15 EST
Test start:	17-FEB-2023 13:30 CET || 07:30 EST
Test end:	17-FEB-2023 16:30 CET || 10:30 EST
Submission deadline:	17-FEB-2023 16:45 CET || 10:45 EST

Location: Remote

SDK Language: Any

Open book (you can use any resources you need)

Ref: I1T6C3S2M4Z2

Create a script to generate 5 Hedera Testnet accounts (Account1, Account2, Account3, Account4 and Account5).

Use these accounts as indicated in the following tasks.
These accounts must not already exist before the start of the test.

Be sure to note down the account Id and keys of the accounts – you will need these later. You will also need to communicate these account IDs during your response to the certification test.

Fund the accounts as you see appropriate to cover the costs of your tasks.

Create a script that creates a fungible token with the Hedera Token Service belonging to Account1.

The total supply should be 1000 and no additional supply can be created.

Create a script to send 150 tokens to Accounts2, making it an atomic swap against 10 HBar.

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Task: Smart Contract Service

Compile the Solidity contract given below using **Account1** and deploy it to the Hedera Network using the HCS with the ContractCreateFlow method.

Write a script to call “function1” with the parameters 5 and 6. Gather the result and display it in the output.

Delete the smart contract.

Bytecode/ABI JSON URL	https://drive.proton.me/urls/HJT4ND5790#NbIrnDy64Idx

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Task: Scheduled Transaction

Create a script that creates a scheduled transaction of 2 Hbar from **Account1** to **Account2.**

Make a second script that deletes the transaction.

Print out the schedule information along the way along with the proof that the transfer did not happen.

Try to execute the transaction and show that it does not work.

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Task: Multi Signature

Create a new wallet with an initial balance of 20 Hbar, and 3 keys (**Account1, Account2 and Account3**) in a key list with a key threshold of 2 (2 Signers out of the three keys).

Create transaction to transfer 10 Hbar to **Account4** and sign it with **Account1** only, show that the transfer fails.

Now create a new transaction where **Account1** and **Account2** sign the transaction and show that the transfer succeeds.

Create a script to create a consensus transaction on the Hedera Consensus Service using **Account1**.

Write protect the Topic to make sure that it is not publicly writable.

Write the current time in the message of the transaction and submit.

Show that the Topic is only writable if you are authorized, by submitting a request that will fail the authorization.

Please submit your results and code, either as a publicly available Git repository or Zip file back to the email you received the validation tasks from.

We will let you know the results within one working day.

Thanks!