

Cortez, Lawrence Neil M.

NW-301

EVEN Units (PC) only

Develop a Solidity smart contract that calculates a total service fee and generates a unique hash value based on specific input parameters(sample data).

First name: Jose

Middle Name: Balsa

Last name: Rizal

Service code: [1 or 2]

****1** : Consultation = 20,000 plus 15% tax

****2**: Documents = 3,000 plus 8% service charge plus 15% tax

Service Fee:

Hash Generation requirements:

Message format = last character of the first name, first character of the middle name, last character of the Lastname, service code, first digit of the service fee

Service code =1 use abi.encode

Service code =2 use abi.encodePacked

Deploy the contract using first account of the ganache if the service code = 1

Deploy the contract using your MetaMask main account is the service code = 2.

Provide clear, high-resolution screenshots of the following:

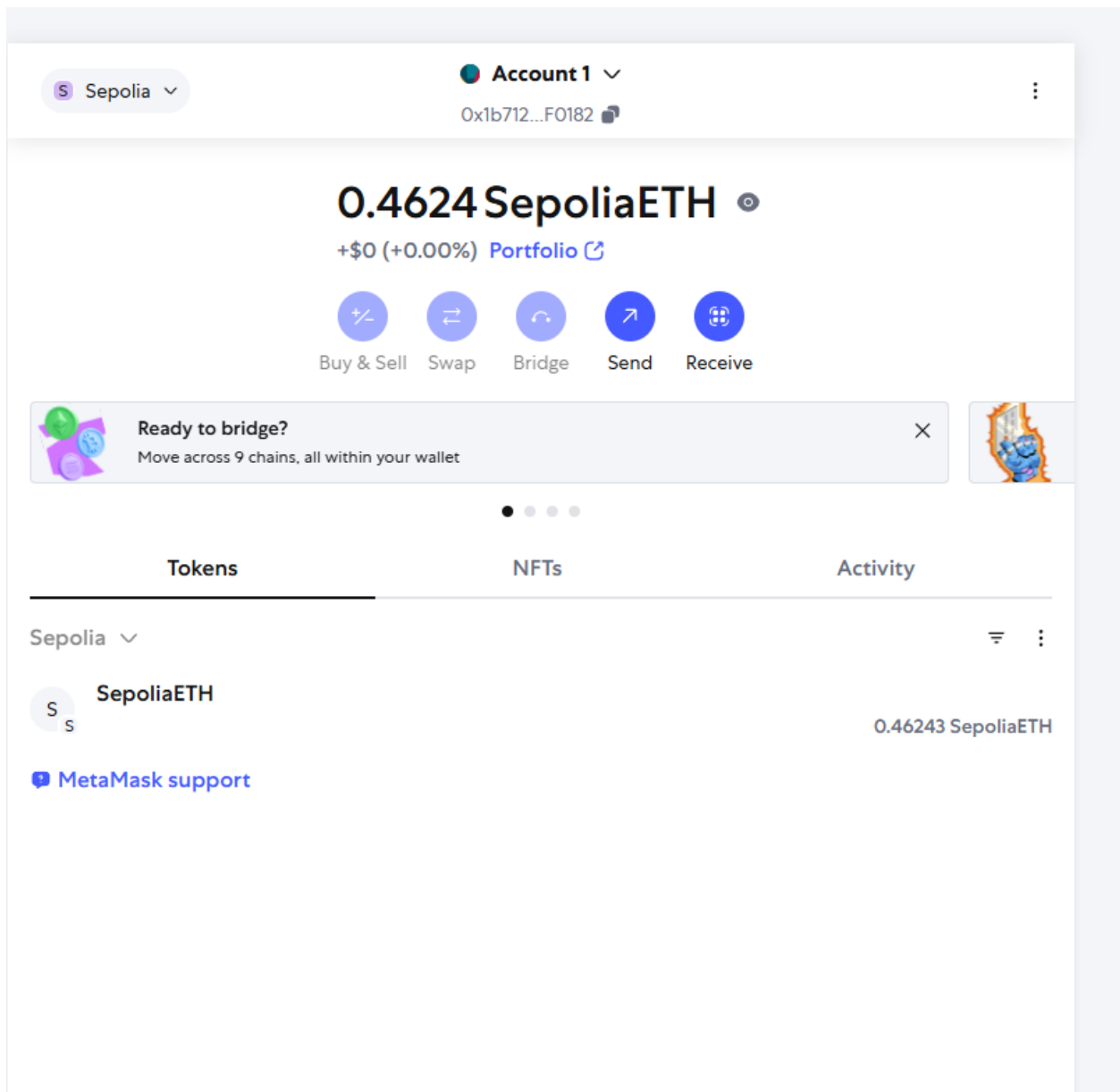
1. Wallet Balances: Your Ganache or MetaMask account before and after deployment to show the gas deduction.
2. Contract Execution: The Remix (or IDE) console showing the calculated Service Fee and the resulting Hash Value.

Filename Format: Lastname_ Unit#_Quiz1Lab.sol/ Lastname__Unit #_Quiz1Lab.docx/pdf

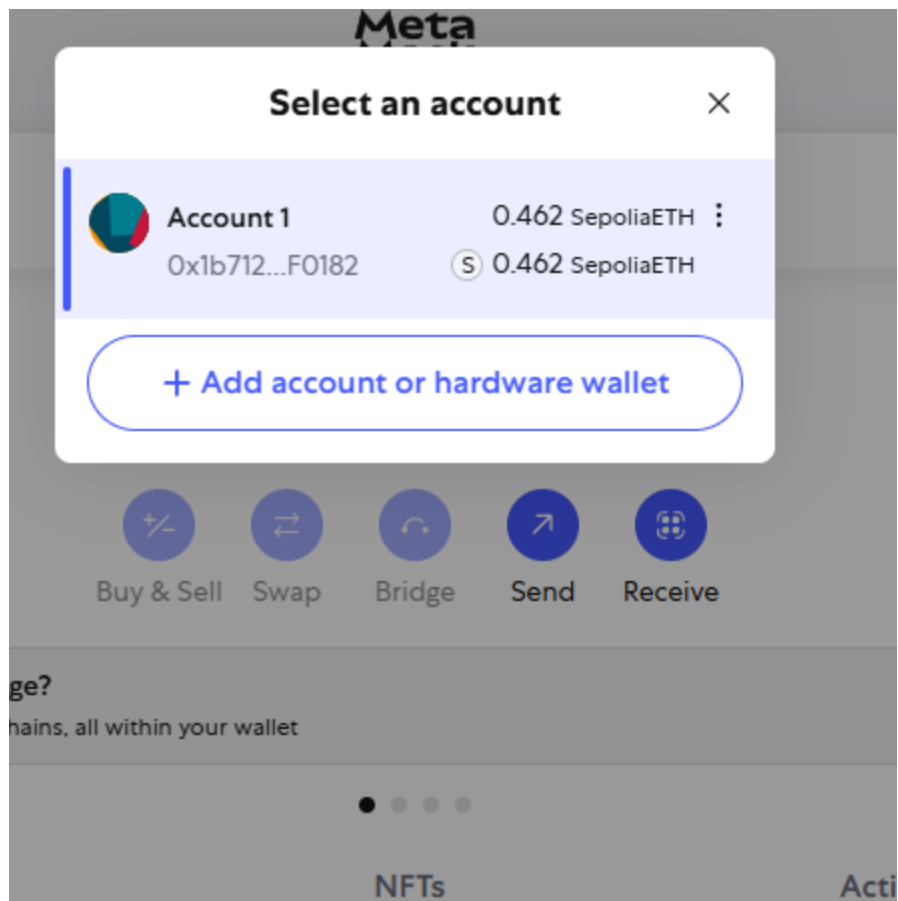
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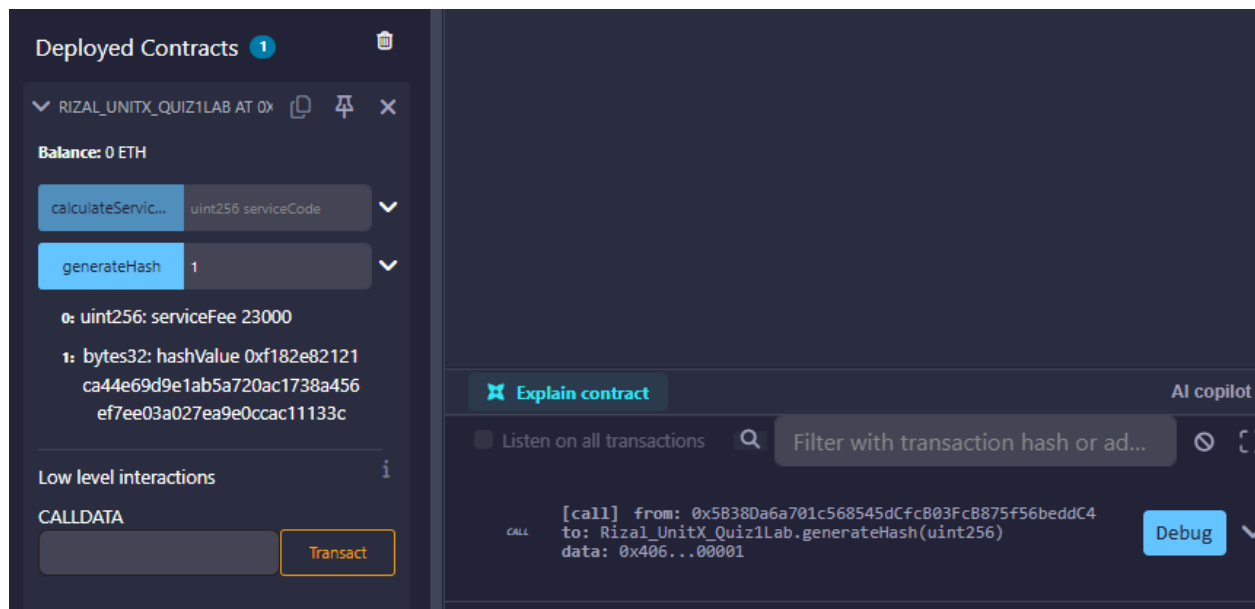
BEFORE DEPLOYMENT:



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GENERATE HASH:



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CALCULATE SERVICE FEE:

The screenshot shows a web interface with a dark theme. At the top, it displays "Balance: 0 ETH". Below this, there are two input fields, each with a blue button and a dropdown menu. The first input field has a blue button labeled "calculateServic..." and a dropdown menu showing "1". Below this input field, the text "0: uint256: totalFee 23000" is displayed. The second input field has a blue button labeled "generateHash" and a dropdown menu showing "1". Below this input field, the text "0: uint256: serviceFee 23000" is displayed. Further down, the text "1: bytes32: hashValue 0xf182e82121ca44e69d9e1ab5a720ac1738a456ef7ee03a027ea9e0ccac11133c" is displayed. At the bottom, there is a section titled "Low level interactions" with an information icon. Below this, the text "CALLDATA" is displayed. At the very bottom, there is a "Transact" button.

Balance: 0 ETH

calculateServic... 1

0: uint256: totalFee 23000

generateHash 1

0: uint256: serviceFee 23000

1: bytes32: hashValue 0xf182e82121ca44e69d9e1ab5a720ac1738a456ef7ee03a027ea9e0ccac11133c

Low level interactions

CALLDATA

Transact

DEPLOYMENT:

The screenshot displays a web application interface for a digital wallet. At the top, the account is identified as "Account 1" with a balance of "0x1b712...F0182". Navigation buttons include "Buy & Sell", "Swap", "Bridge", "Send", and "Receive". A "Ready to bridge?" banner promotes moving assets across 9 chains. Below this, tabs for "Tokens", "NFTs", and "Activity" are visible. The "Activity" tab is selected, showing a list of transactions for the "Sepolia" network. Two "Contract deployment" transactions are listed, both dated "Feb 3, 2026". The first is marked "Unapproved" and the second "Confirmed", both showing a balance change of "-0 SepoliaETH".

Account 1
0x1b712...F0182

Buy & Sell Swap Bridge Send Receive

Ready to bridge?
Move across 9 chains, all within your wallet

Tokens NFTs Activity

Sepolia

Feb 3, 2026

Contract deployment -0 SepoliaETH
Unapproved -0 SepoliaETH

Feb 3, 2026

Contract deployment -0 SepoliaETH
Confirmed -0 SepoliaETH

```
54  
55  
56  
57  
58  
59  
60
```

firstMiddleName,
lastLastName,
serviceCode,
firstDigit

);

Explain contract AI copilot

Listen on all transactions Filter with transaction hash or ad...
[verification] Contract deployed. Checking explorers for registration...
Etherscan verification skipped: API key not provided.
Please input the API key in Remix Settings - Connected Services OR Contract
Verification Plugin Settings.

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```
✓ [block:10180439 txIndex:11] from: 0x1b7...F0182
to: Rizal_UnitX_Quiz1Lab.(constructor) value: 0 wei
data: 0x608...f0033 logs: 0 hash: 0xf9e...f556f Debug ✓

[Verification] Contract deployed. Checking explorers for registration...
Etherscan verification skipped: API key not provided.
Please input the API key in Remix Settings - Connected Services OR Contract
Verification Plugin Settings.

[Sourcify] Verification submitted. Awaiting confirmation...
[Blockscout] Verification submitted. Awaiting confirmation...
[Routescan] Verification submitted. Awaiting confirmation...
[Sourcify] Verification Successful! View Code
[Blockscout] Verification Successful! View Code
call to Rizal_UnitX_Quiz1Lab.generateHash
```

AFTER DEPLOYMENT

Sepolia

Account 1
0x1b712...F0182

0.4604 SepoliaETH

+\$0 (+0.00%) [Portfolio](#)

Buy & Sell

Swap

Bridge

Send

Receive

Ready to bridge?

Move across 9 chains, all within your wallet

Tokens

NFTs

Activity

Sepolia

Feb 3, 2026

Contract deployment

Unapproved

-0 SepoliaETH

-0 SepoliaETH

Feb 3, 2026

Contract deployment

Confirmed

-0 SepoliaETH

-0 SepoliaETH

Contract deployment

Confirmed

-0 SepoliaETH

-0 SepoliaETH

MetaMask support

