Hackathon for blockchain

Qualification:

Anyone with an understanding of blockchain basics and hands on knowledge on supporting languages should be able to solve these identified problems.

Problem 1: A common platform for setting up a simple transaction between two accounts on blockchain

The fact:

Steps for a Normal Transaction in blockchain:

1. Metamask account/Wallet creation
    a. You download and install application from https://metamask.io/
    b. Signup a new account
2. Wallet Creation
    a. Create one or more wallets on main or test net
    b. Save the private key with each wallet created
3. Account status
    a. Visit https://etherscan.io/ for main net wallet. For test net visit rinkeby.etherscan.io
    b. Check for wallet status using its public address
4. Working with faucets
    a. In bulk- Visit to https://faucet.rinkeby.io/
        i. To request funds via Twitter, make a tweet with your Ethereum address pasted into the contents (surrounding text doesn't matter). To request funds via Facebook, publish a new **public** post with your Ethereum address embedded into the content (surrounding text doesn't matter).
        ii. Copy-paste the tweets/posts URL into the above input box and fire away!
    b. Visit to https://faucets.chain.link/
        i. At a time, you can have 0.1 ether added to your account

5. Performing transaction
    a. Inter accounts
    b. Intra accounts
6. Ether verification
    a. Wallet check on metamask application.
    b. Visit https://etherscan.io/ and confirm the transaction
    c. Check the transaction details
7. Transaction gets added to the next block in the block chain
    a. Visit https://etherscan.io/ and enter the block number
    b. Check for all the block parameters like- version, parent, transactions, gas fee, burnt fee, merkle root etc.

Hackathon problem statement1 (detailed):

In the above steps, it can be seen that to perform a transaction and verify the status, the process is done through the usage of a number of sites. These sites provide the essential requirements for making a transaction.

The aim of this Hackathon is to put all of these steps to be executed on a single platform as an application for demonstration purpose.

For example, the application should have following modules:

1. Account creation
2. Receiving Dummy ethers
3. Initiating a transaction
4. Transaction validation check
5. Committing a Transaction
6. Account status as etherscan
7. Block creation (Actual/fake)
8. Checking block status (Actual/fake)

For any doubts and clarification regarding problem statement, a meet session will be arranged on Sunday, 12th July, 2022. Timings will be shared shortly.

Judgement:

1. On the hackathon day (18th June, 2022), teams will be judged on the terms of:

a. Meeting of Project functional requirement specifications

b. Meeting Project non-functional requirement specifications like scalability, extensibility, maintainability etc.

2. Hackathon Day- Demo of the problem statement. Five best teams will be shortlisted.

3. Prize money is subject to the handover of the deliverable to ISFCR lab, so that it can be used to teach the B.Tech., M.Tech. and executive M.Tech. blockchain courses.