Applied and Action Learning
(Learning by Doing and Discovery)

Name of the Experiement : Know Your TX – Dissecting a Transaction

Objective/Aim:

To understand the structure of an Ethereum blockchain transaction by analysing its key components using a blockchain explorer like **Etherscan**.

Apparatus/Software Used:

- Laptop/PC
- Web browser
- Internet connection
- MetaMask wallet (with testnet ETH)
- Etherscan

Theory/Concept:

A **blockchain transaction (TX)** is a recorded operation on the blockchain initiated by a user or smart contract. On Ethereum, every transaction is cryptographically signed by the sender and contains all the information needed to update the blockchain's state. Hot Wallet: Connected to internet (e.g., MetaMask, Trust Wallet).

A transaction represents a request to perform an action on the blockchain, such as:

- Sending Ether (ETH) from one wallet to another
- Deploying a smart contract
- Interacting with an existing smart contract (e.g., calling a function)

Procedure:

Step 1: Open Remix IDE and deploy a simple smart contract
Step 2: Connect your MetaMask wallet to the Sepolia test network and ensure that it is a test network.
Step 3: Deploy your contract using a MetaMask.
Step 4: Click on your MetaMask account name to copy your wallet address
Step 5: Access Sepolia Faucet Website
Step 6: Paste your copied MetaMask Sepolia address into the faucet input box.
Step 7: Wait for Transaction Confirmation
Step 8: Open MetaMask, refresh, and see Sepolia ETH balance increased.
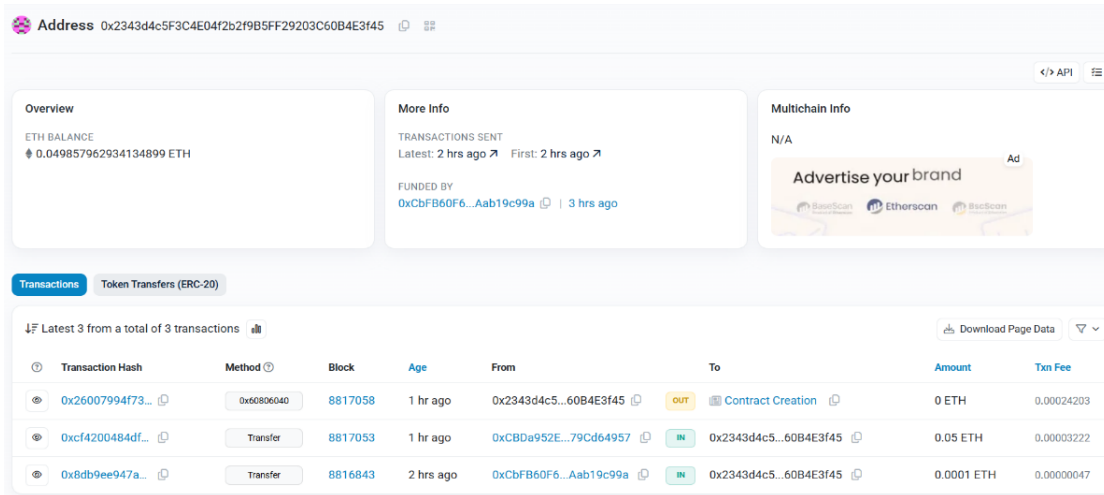Step 9: Etherscan to show the transaction.

Fig: Transaction

Observation

- Wallet address copied and pasted on Sepolia Test Network.
- ETH requested successfully.
- Sepolia ETH received in MetaMask wallet after a few minutes.
- Transaction verified on Sepolia Etherscan with successful status.

ASSESSMENT

Rubrics	Full Mark	Marks Obtained	Remarks
Concept	10		
Planning and Execution/ Practical Simulation/ Programming	10		
Result and Interpretation	10		
Record of Applied and Action Learning	10		
Viva	10		
Total	**50**		

Signature of the Student:

Name :

Regn. No.

Signature of the Faculty: