3A)

const{Web3} = require('web3');

const web3 = new Web3('https://mainnet.infura.io/v3/');

3B)

const{Web3} = require('web3');

const web3 = new Web3('https://mainnet.infura.io/v3/');

web3.eth.getBlockNumber()

.then(console.log)

.catch(console.error);

3C)

const {Web3} = require('web3');

const { ETH\_DATA\_FORMAT, DEFAULT\_RETURN\_FORMAT } = require("web3");

async function main() {

// Configuring the connection to an Ethereum node

const web3 = new Web3(

new Web3.providers.HttpProvider(

'https://sepolia.infura.io/v3/API\_KEY',//add your api key

),

);

const latestBlock = await web3.eth.getBlock("latest");

const baseFeePerGas = latestBlock.baseFeePerGas;

const maxFeePerGas = BigInt(baseFeePerGas) + BigInt(web3.utils.toWei("2", "gwei"));

// Creating a signing account from a private key

const signer = web3.eth.accounts.privateKeyToAccount(PRIVATE\_KEY);//add your private key

web3.eth.accounts.wallet.add(signer);

await web3.eth

.estimateGas(

{

from: signer.address,

to: RECIPIENT\_ADDRESS,//Add recipient\_address

value: web3.utils.toWei("0.0001", "ether"),

},

"latest",

ETH\_DATA\_FORMAT,

)

.then((value) => {

limit = value;

});

// Creating the transaction object

const tx = {

from: signer.address,

to: process.env.RECIPIENT\_ADDRESS,

value: web3.utils.toWei(AMOUNT , "ether"),// change AMOUNT to send

gas: limit,

nonce: await web3.eth.getTransactionCount(signer.address),

maxPriorityFeePerGas: web3.utils.toWei("2", "gwei"),

maxFeePerGas: maxFeePerGas.toString(),

chainId: 11155111,

type: 0x2,

};

signedTx = await web3.eth.accounts.signTransaction(tx, signer.privateKey);

console.log("Raw transaction data: " + signedTx.rawTransaction);

// Sending the transaction to the network

const receipt = await web3.eth

.sendSignedTransaction(signedTx.rawTransaction)

.once("transactionHash", (txhash) => {

console.log(`Mining transaction ...`);

console.log(`https://sepolia.etherscan.io/tx/${txhash}`);

});

// The transaction is now on chain!

console.log(`Mined in block ${receipt.blockNumber}`);

}

main();

4) const { Web3 } = require('web3');

const web3 = new Web3 ('https://Sepolia.infura.io/v3/ ');

const ganacheUrl = 'HTTP://127.0.0.1:7545';

web3.eth.net.getId()

.then((networkId) => { console.log('Connected to network ID:', networkId); })

.catch((error) => { console.log('Connected to network ID:', networkId); }) .catch((error) => { console.error('Error connecting to Ganache:', error); });

const accountAddress = '0xbc14dDeCD661d9de02ba1320d0C6204eB0BC160F';

web3.eth.getBalance(accountAddress)

.then((balance) => {

console.log('Account balance:', web3.utils.fromWei(balance, 'ether'), 'ETH');

})

.catch((error) => {

console.error('Error fetching balance:', error);

});