//1) create a file with name lpu.txt

//2) you have to use fs module to do the following

//3) convert that in json

//4) read a json

//5) write a json file, open, close, rename, copy

//6) compress the same file using

//7) brotli compression

//8) also decompress it

const fs = require('fs');

const zlib = require('zlib');

// Step 1: Create a file with name lpu.txt

fs.writeFile('lpu.txt', 'Hello, this is a sample text.', (err) => {

  if (err) throw err;

  console.log('File created successfully.');

  // Step 2: Read the file and convert it to JSON

  fs.readFile('lpu.txt', 'utf8', (err, data) => {

    if (err) throw err;

    const jsonData = { text: data };

    // Step 3: Convert to JSON

    const jsonString = JSON.stringify(jsonData);

    // Step 4: Read JSON

    const parsedData = JSON.parse(jsonString);

    console.log('Read JSON:', parsedData);

    // Step 5: Write JSON to a file

    fs.writeFile('lpu.json', jsonString, (err) => {

      if (err) throw err;

      console.log('JSON file created successfully.');

      // Step 5 (continued): Open, Close, Rename, Copy

      const readStream = fs.createReadStream('lpu.json');

      const writeStream = fs.createWriteStream('lpu-copy.json');

      readStream.pipe(writeStream);

      writeStream.on('finish', () => {

        console.log('File copied successfully.');

        // Renaming the file

        fs.rename('lpu-copy.json', 'lpu-renamed.json', (err) => {

          if (err) throw err;

          console.log('File renamed successfully.');

          // Step 6: Compress using Brotli compression

          const brotliStream = zlib.createBrotliCompress();

          const input = fs.createReadStream('lpu-renamed.json');

          const output = fs.createWriteStream('lpu-compressed.br');

          input.pipe(brotliStream).pipe(output);

          output.on('finish', () => {

            console.log('File compressed successfully.');

            // Step 8: Decompress

            const decompressStream = zlib.createBrotliDecompress();

            const compressedInput = fs.createReadStream('lpu-compressed.br');

            const decompressedOutput = fs.createWriteStream('lpu-decompressed.json');

            compressedInput.pipe(decompressStream).pipe(decompressedOutput);

            decompressedOutput.on('finish', () => {

              console.log('File decompressed successfully.');

            });

          });

        });

      });

    });

  });

});