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1  // -----
2  // Demo NodeJS Server - String ENCODING Service
3  // -----
4  // Usage http://127.0.0.1:7777?encode=xxx where xxx is the string to encode
5  // Incl. Server Side Request/Originator Logging
6  //
7  // Note: delete/deactivate <"type": "module"> in the package.json config file
8  //
9  // File: demo-encode1.js
10 //
11 // V1 Oct'2021 dbe - initial version, KETE-HS21, based on fibonacci.js example
12 //
13 // Source: Node.js Web Development - Fifth Edition (packt.com)
14 // -----
15 // required packages
16 var http = require('http');
17 var url = require('url');
18
19 // local functions, objects
20 const cipher = salt => {
21   const textToChars = text => text.split('').map(c => c.charCodeAt(0));
22   const byteHex = n => ("0" + Number(n).toString(16)).substr(-2);
23   const applySaltToChar = code => textToChars(salt).reduce((a,b) => a ^ b, code);
24
25   return text => text.split('').
26     .map(textToChars)
27     .map(applySaltToChar)
28     .map(byteHex)
29     .join('');
30 }
31
32 // To create a (symmetric) cipher and decypher define a key string
33 const myCipher = cipher('mySecretKey2021')
34
35 //Then define the ENCRYPTION function to cipher a string
36 const encryption = exports.encryption = function(str) {
37   return myCipher(str);
38 }
39
40 // -----
41 // Setup a http server acting on the 'encode' request parameter
42 // Usage http://127.0.0.1:7777?encode=xxx where xxx is the string to encode
43 // -----
44 http.createServer(function (request, response) {
45   var urlP = url.parse(request.url, true);
46   var xEncode;
47
48   response.writeHead(200, {'Content-Type': 'text/plain'});
49
50   if (urlP.query['encode']) {
51     xEncode = encryption(urlP.query['encode']);
52     response.end('Encoded String ' + urlP.query['encode'] + ' = ' + xEncode);
53     console.log('-- encoding request: string > ' + urlP.query['encode']);
54   } else {
55     response.end('USAGE: http://127.0.0.1:7777?encode=xxx where xxx is the string to encode');
56   }
57 }).listen(7777, '127.0.0.1');
58 console.log('Server running at http://127.0.0.1:7777');
59

```