**Module3**

**Make HTTP Requests in Node.js using**

1.Asynchronous Node JS , Making HTTP request

**HTTP – the Standard Library:**

we will send a request to getting all resource using HTTP module. NodeJS have built in HTTP module to make network request. But the drawbacks is that, it is not too user friendly like the other solution. You, need to manually parse the data after received.

const http = require('https');

http.get("https://jsonplaceholder.typicode.com/users",(res)=>{

    let data='';

      res.on('data', (chunk) => {

            data += chunk;

        });

    res.on('end', () => {

           console.log('Body:', JSON.parse(data))

       });

}).on("error",(err)=>{

    console.log("Error:"+err.message);

});

2. JSON Parsing, Geo-coding, Error Handling

About JSON

1. key:value is the building block.
2. { } contains an element.
3. [ ] contains an array of elements.
4. An element can have multiplekey:value pairs.
5. Value can be a simple value like number or string etc., or an element or an array.
6. Elements in an Array could be accessed using index
7. Multiplekey:value pairs or elements are separated by comma

Nodejs parse json

var users ='{"persons":[{"name":"Megha","city":"Surat"},{"name":"Malay","city":"Vadodra"}]}';

var userObject = JSON.parse(users);

console.log(userObject);

//print first user name

console.log(userObject.persons[0].name);

Geocoding api:

Insatll module:

**Npm install node-open-geocoder**

const openGeocoder = require('node-open-geocoder');

openGeocoder()

  .geocode('ring road,surat')

  .end((err, res) => {

    if(err)throw err;

    console.log(res);

  })

**Callback:**

Node.js callbacks are a special type of function passed as an argument to another function.

They're called when the function that contains the callback as an argument completes its execution, and allows the code in the callback to run in the meantime.

Callbacks help us make asynchronous calls. Even Node.js APIs are written in a way that supports callbacks.

Here's the syntax of a callback in Node:

\*function function\_name(argument, callback)

const fs=  require('fs');

const data= fs.readFile('hello.txt','utf-8',function(err,res){

    if(err){

        console.log(err);

    }

    else{

        console.log(res);

    }

});

**Geo decoder lib:**

const openGeocoder = require('node-open-geocoder');

openGeocoder()

  .geocode('ring road,surat')

  .end((err, res) => {

    if(err)throw err;

    console.log(res);

  })

**https://rapidapi.com/meteostat/api/meteostat**