Assignment: Data Formats

Scott Freedman

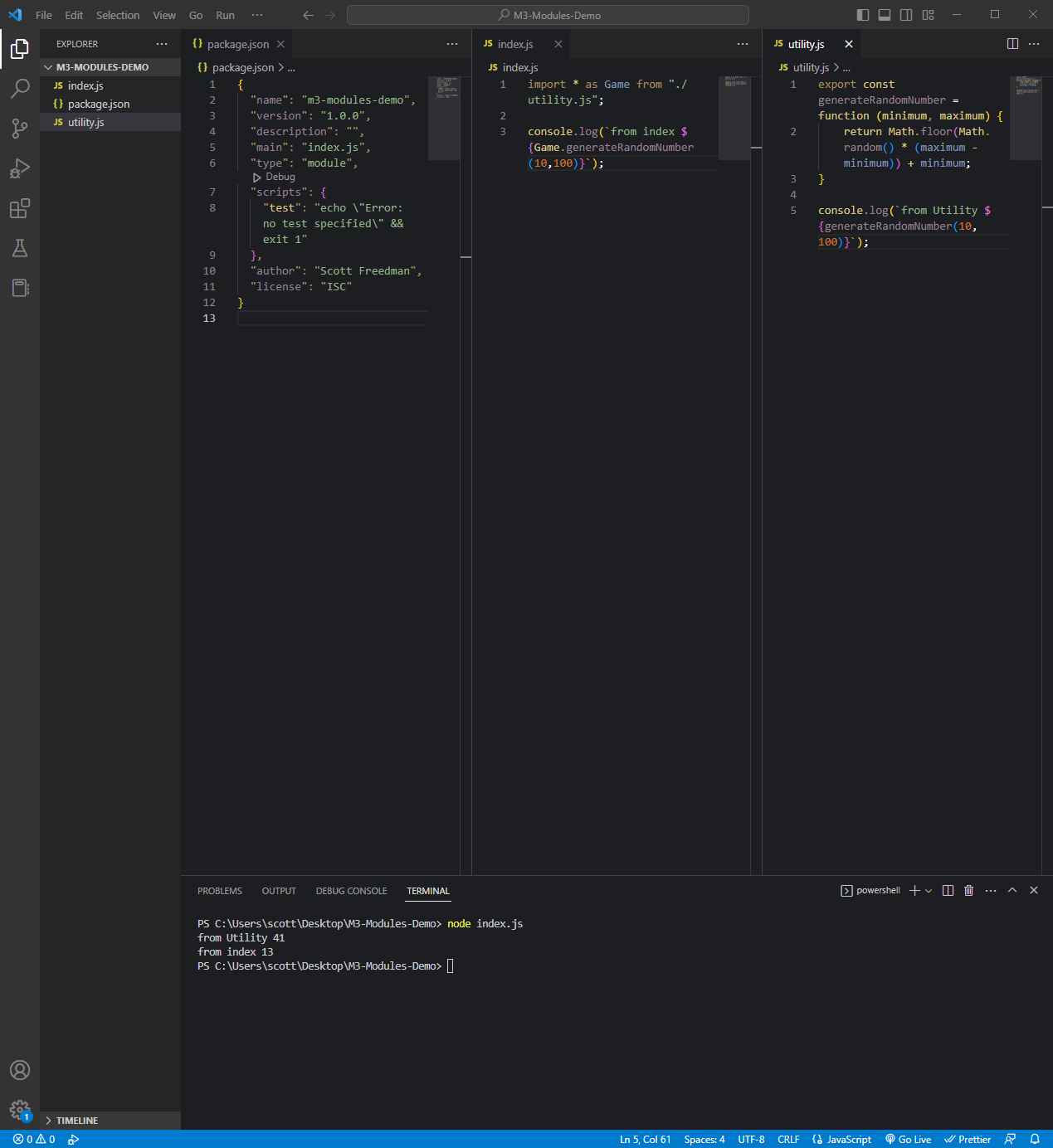
Ira A. Fulton Schools of Engineering, Arizona State University

IFT 458: Middleware Programming & Database Security

Professor Dinesh Sthapit

February 12, 2023

**Reusable components to create a composite components**

**

*Package.json code:*

{

  "name": "m3-modules-demo",

  "version": "1.0.0",

  "description": "",

  "main": "index.js",

  "type": "module",

  "scripts": {

    "test": "echo \"Error: no test specified\" && exit 1"

  },

  "author": "Scott Freedman",

  "license": "ISC"

}

*Index.js code:*

import \* as Game from "./utility.js";

console.log(`from index ${Game.generateRandomNumber(10,100)}`);

*utility.js code:*

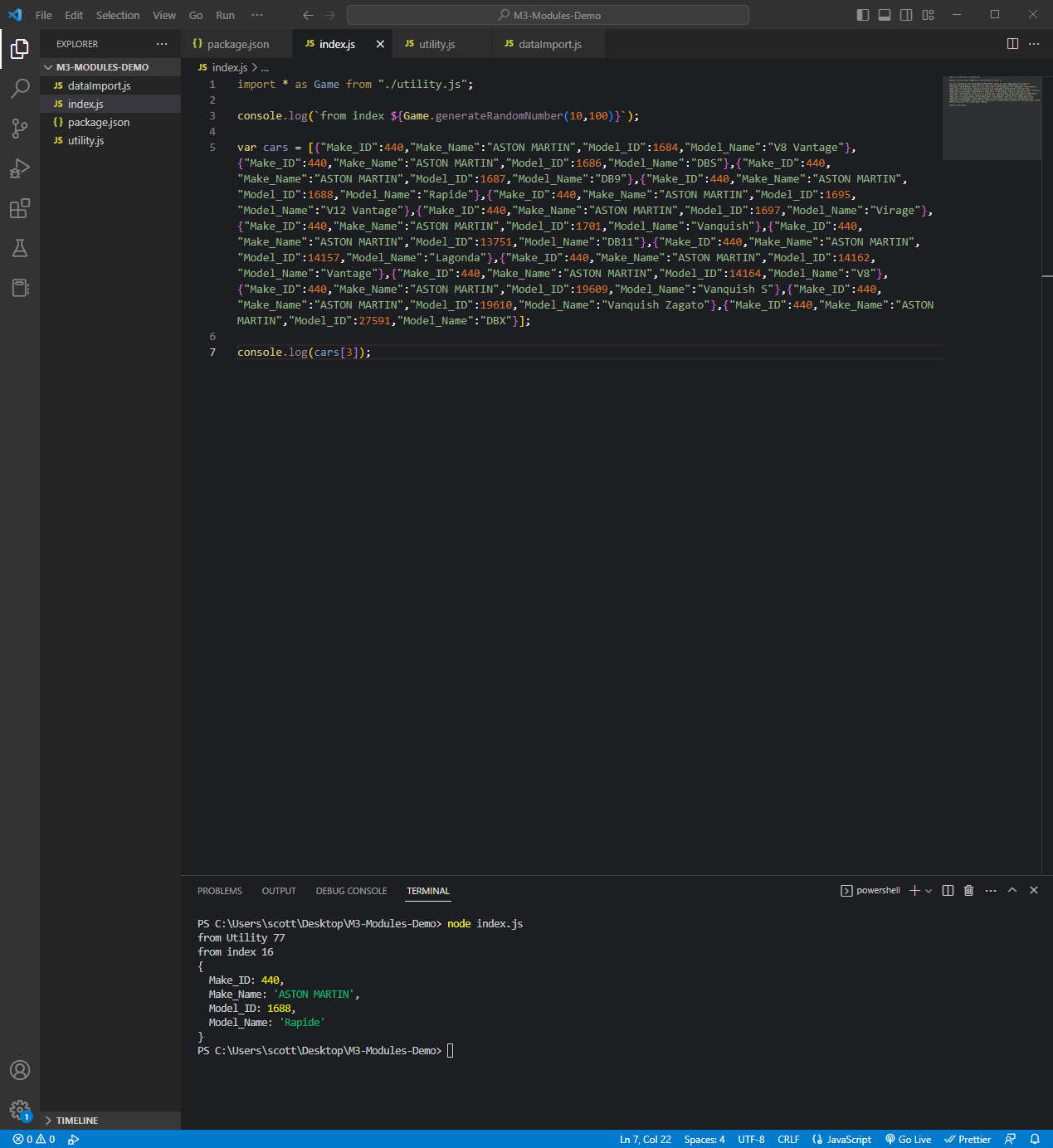
export const generateRandomNumber = function (minimum, maximum) {

    return Math.floor(Math.random() \* (maximum - minimum)) + minimum;

}

console.log(`from Utility ${generateRandomNumber(10,100)}`);

**Using Importing External Modules (third-party modules)**

****

*Code:*

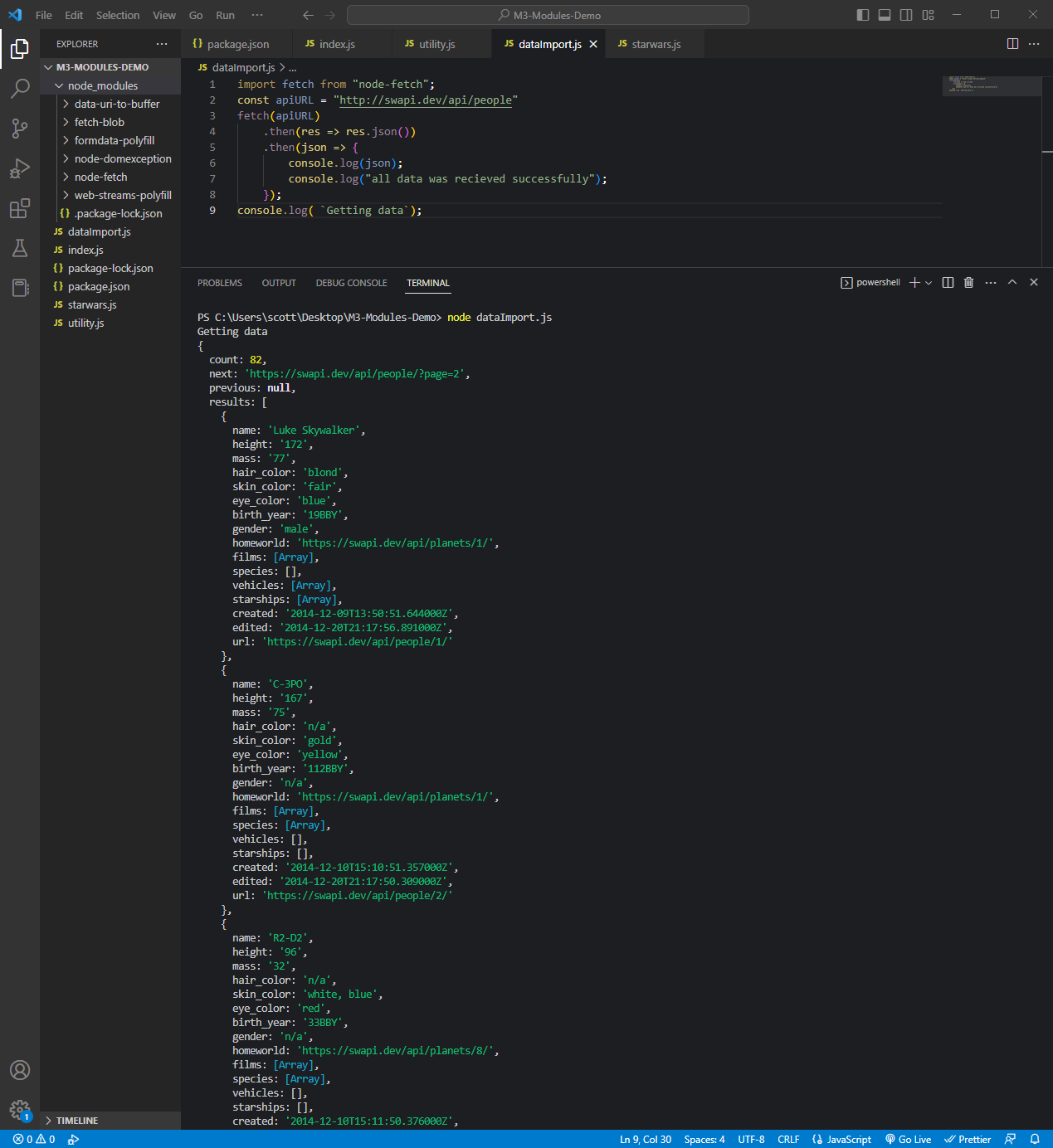
import \* as Game from "./utility.js";

console.log(`from index ${Game.generateRandomNumber(10,100)}`);

var cars = [{"Make\_ID":440,"Make\_Name":"ASTON MARTIN","Model\_ID":1684,"Model\_Name":"V8 Vantage"},{"Make\_ID":440,"Make\_Name":"ASTON MARTIN","Model\_ID":1686,"Model\_Name":"DBS"},{"Make\_ID":440,"Make\_Name":"ASTON MARTIN","Model\_ID":1687,"Model\_Name":"DB9"},{"Make\_ID":440,"Make\_Name":"ASTON MARTIN","Model\_ID":1688,"Model\_Name":"Rapide"},{"Make\_ID":440,"Make\_Name":"ASTON MARTIN","Model\_ID":1695,"Model\_Name":"V12 Vantage"},{"Make\_ID":440,"Make\_Name":"ASTON MARTIN","Model\_ID":1697,"Model\_Name":"Virage"},{"Make\_ID":440,"Make\_Name":"ASTON MARTIN","Model\_ID":1701,"Model\_Name":"Vanquish"},{"Make\_ID":440,"Make\_Name":"ASTON MARTIN","Model\_ID":13751,"Model\_Name":"DB11"},{"Make\_ID":440,"Make\_Name":"ASTON MARTIN","Model\_ID":14157,"Model\_Name":"Lagonda"},{"Make\_ID":440,"Make\_Name":"ASTON MARTIN","Model\_ID":14162,"Model\_Name":"Vantage"},{"Make\_ID":440,"Make\_Name":"ASTON MARTIN","Model\_ID":14164,"Model\_Name":"V8"},{"Make\_ID":440,"Make\_Name":"ASTON MARTIN","Model\_ID":19609,"Model\_Name":"Vanquish S"},{"Make\_ID":440,"Make\_Name":"ASTON MARTIN","Model\_ID":19610,"Model\_Name":"Vanquish Zagato"},{"Make\_ID":440,"Make\_Name":"ASTON MARTIN","Model\_ID":27591,"Model\_Name":"DBX"}];

console.log(cars[3]);

**Data Formats and Data Exchange**

**

*Code:*

import fetch from "node-fetch";

const apiURL = "http://swapi.dev/api/people"

fetch(apiURL)

    .then(res => res.json())

    .then(json => {

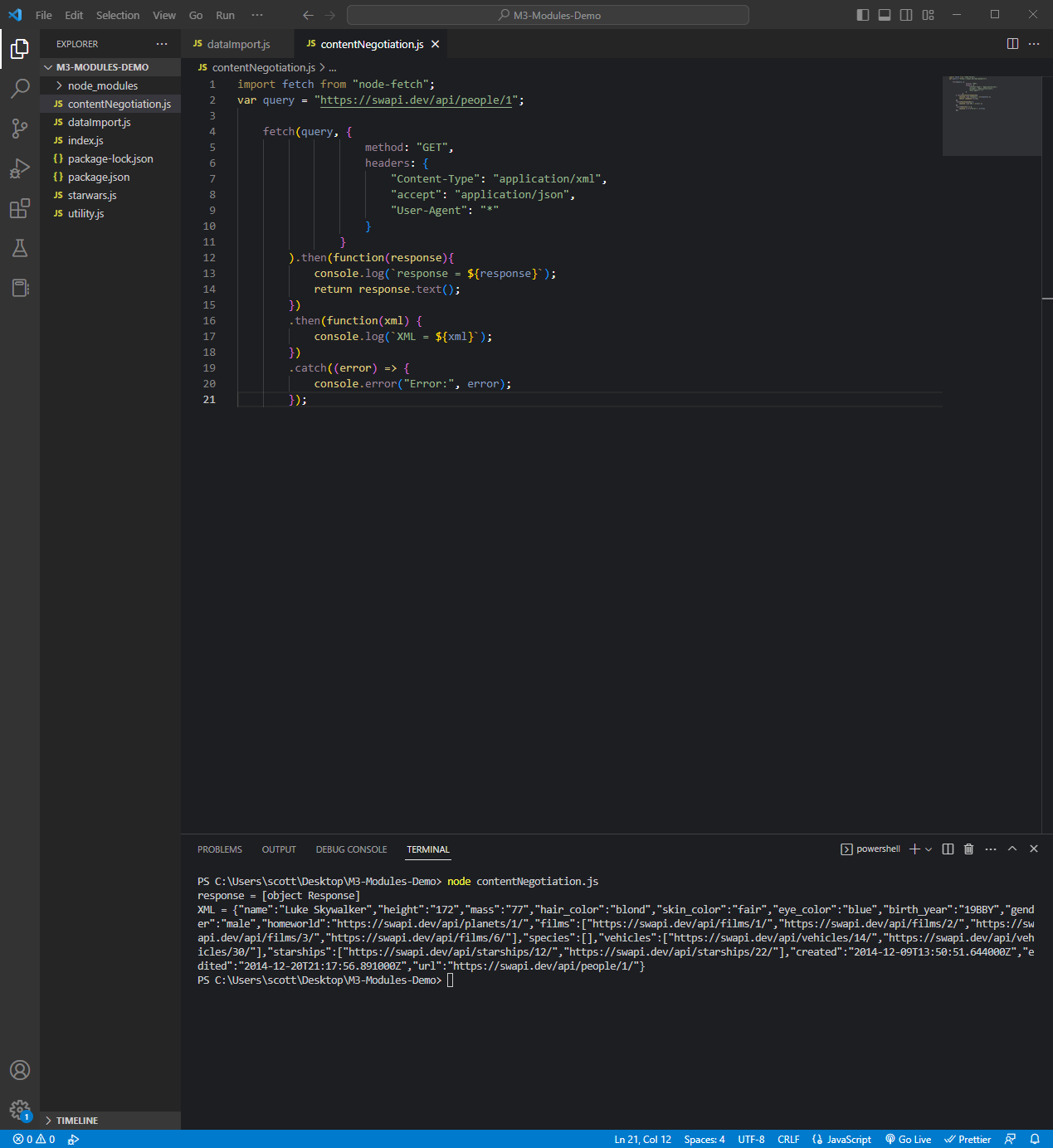
        console.log(json);

        console.log("all data was recieved successfully");

    });

console.log( `Getting data`);

**Content Negotiation**

**

*Code:*

import fetch from "node-fetch";

var query = "https://swapi.dev/api/people/1";

    fetch(query, {

                    method: "GET",

                    headers: {

                        "Content-Type": "application/xml",

                        "accept": "application/json",

                        "User-Agent": "\*"

                    }

                }

        ).then(function(response){

            console.log(`response = ${response}`);

            return response.text();

        })

        .then(function(xml) {

            console.log(`XML = ${xml}`);

        })

        .catch((error) => {

            console.error("Error:", error);

        });