IFT544: Middleware Prog & Database Security
Module 2 Assignment: JavaScript language

Author: Nived Abdulsathar (1225125746)
Instructor: **Dinesh Sthapit**
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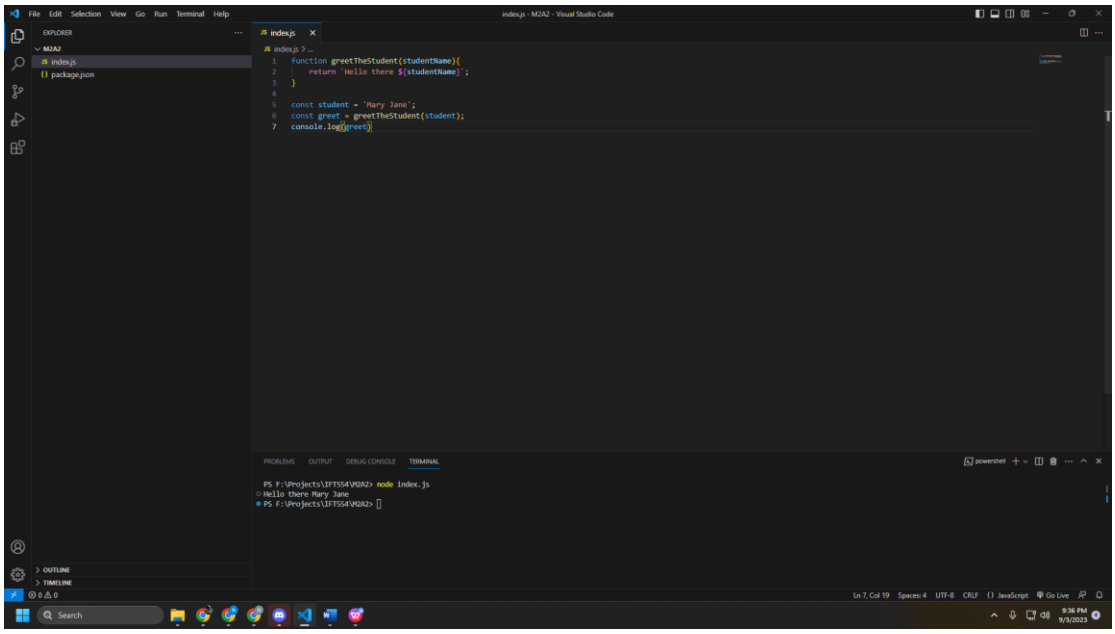
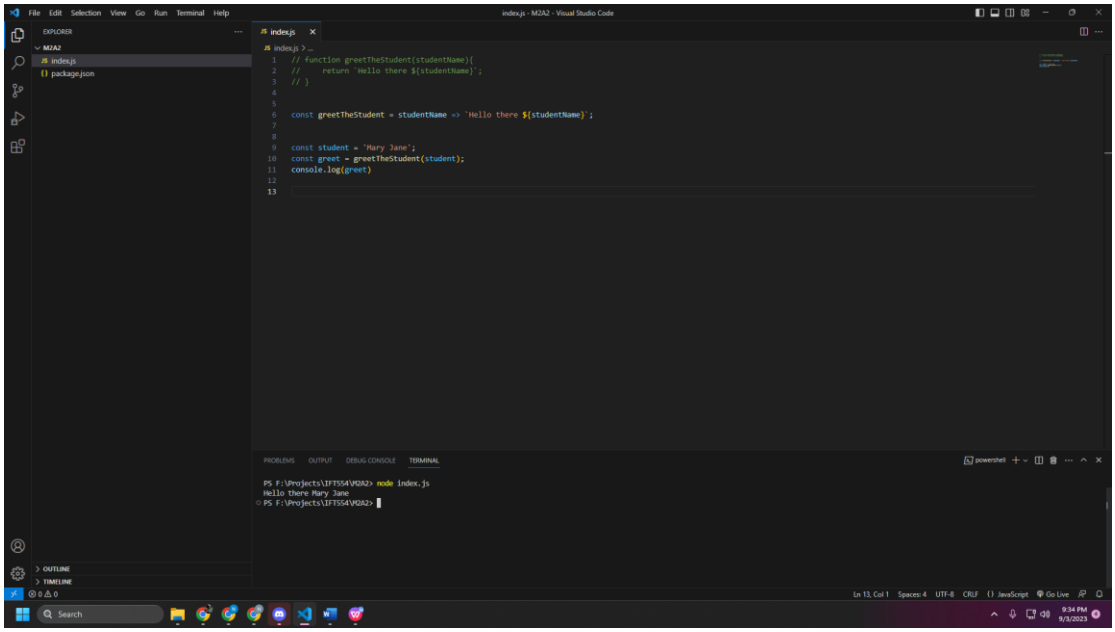
Introduction to JavaScript -1

```
function greetTheStudent(studentName){
    return `Hello there ${studentName}`;
}

const student = 'Mary Jane';
const greet = greetTheStudent(student);
console.log(greet)
```



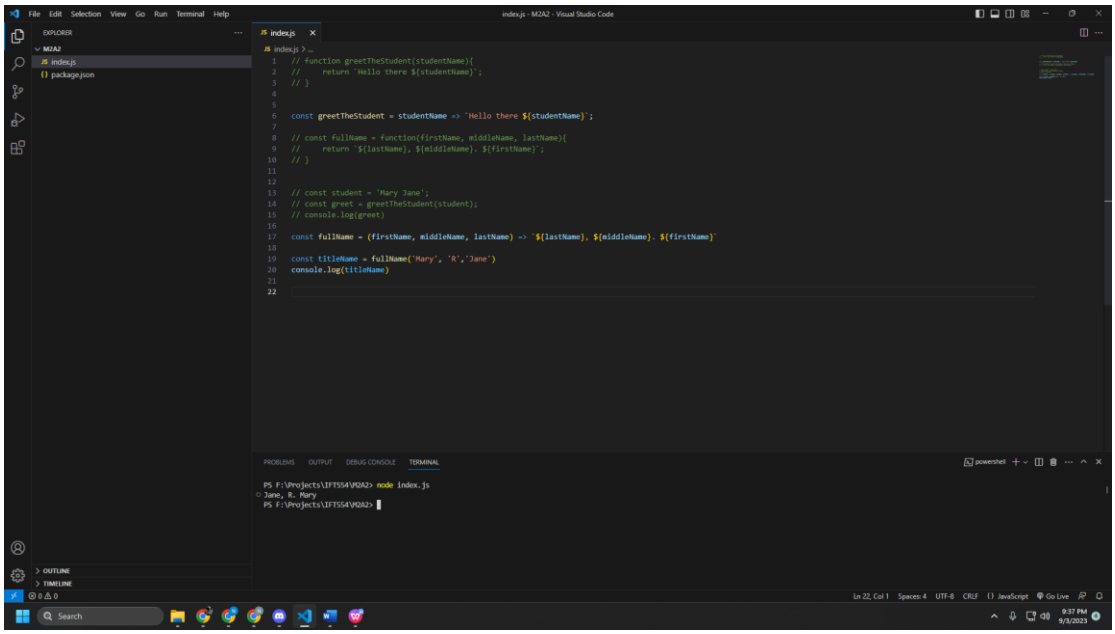
JavaScript Function Refactoring 2

```
// function greetTheStudent(studentName){
//     return `Hello there ${studentName}`;
// }


const greetTheStudent = studentName => `Hello there ${studentName}`;


const student = 'Mary Jane';
const greet = greetTheStudent(student);
console.log(greet)
```



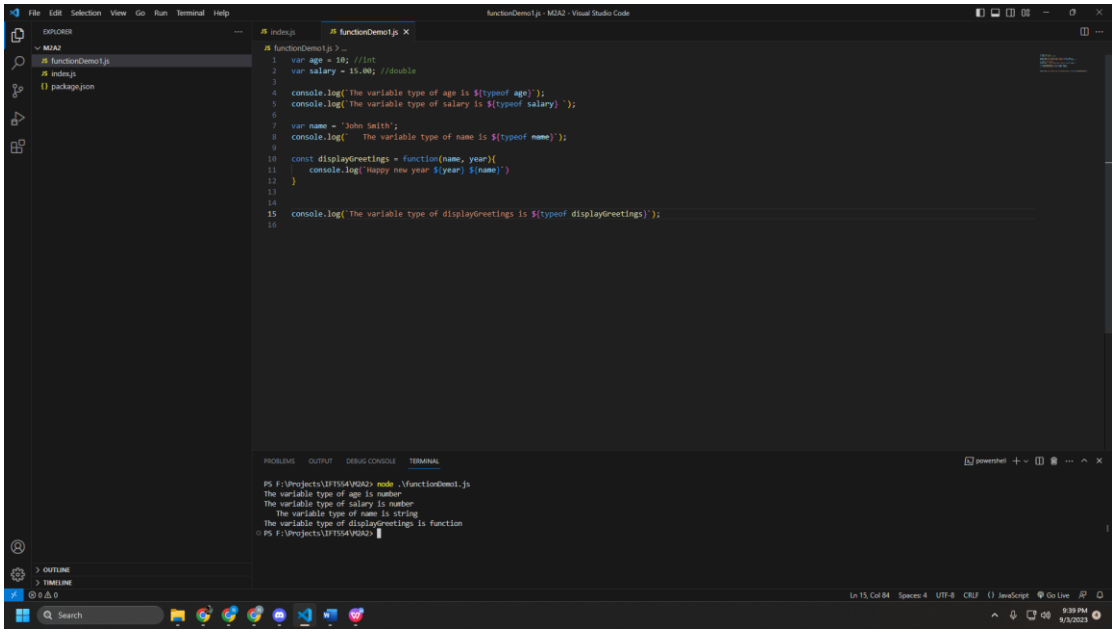
JavaScript Refactoring 3

```
// function greetTheStudent(studentName){
//     return `Hello there ${studentName}`;
// }


const greetTheStudent = studentName => `Hello there ${studentName}`;

// const fullName = function(firstName, middleName, lastName){
//     return `${lastName}, ${middleName}. ${firstName}`;
// }


// const student = 'Mary Jane';
// const greet = greetTheStudent(student);
// console.log(greet)

const fullName = (firstName, middleName, lastName) => `${lastName},
${middleName}. ${firstName}`

const titleName = fullName('Mary', 'R','Jane')
console.log(titleName)
```



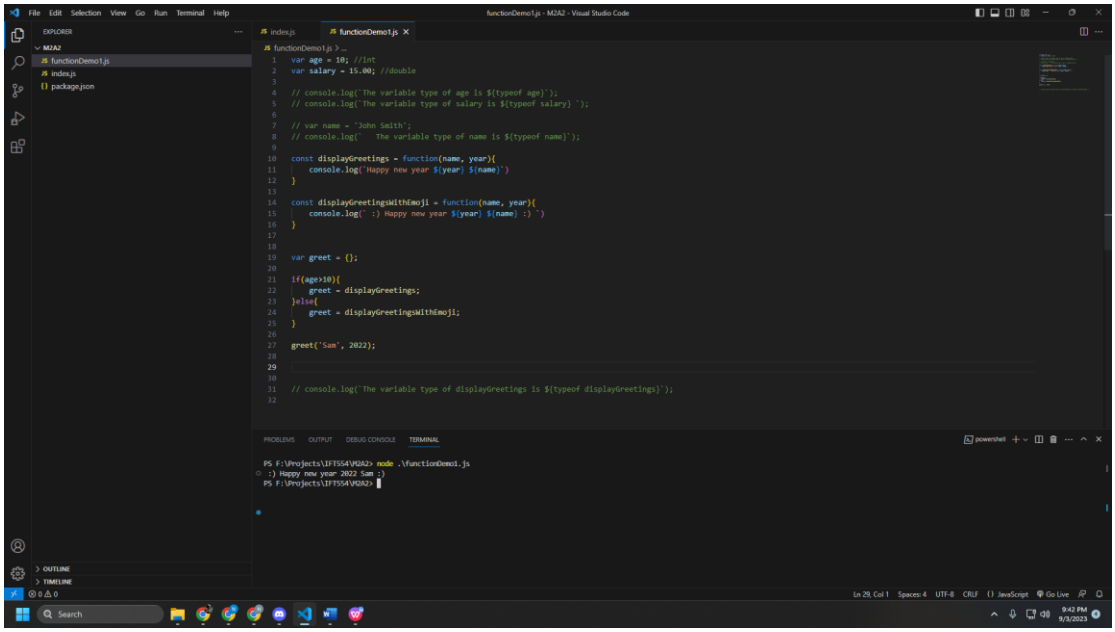
JavaScript Variables 4

```
var age = 10; //int
var salary = 15.00; //double

console.log(`The variable type of age is ${typeof age}`);
console.log(`The variable type of salary is ${typeof salary} `);

var name = 'John Smith';
console.log(`    The variable type of name is ${typeof name}`);

const displayGreetings = function(name, year){
    console.log(`Happy new year ${year} ${name}`)
}


console.log(`The variable type of displayGreetings is ${typeof
displayGreetings}`);
```



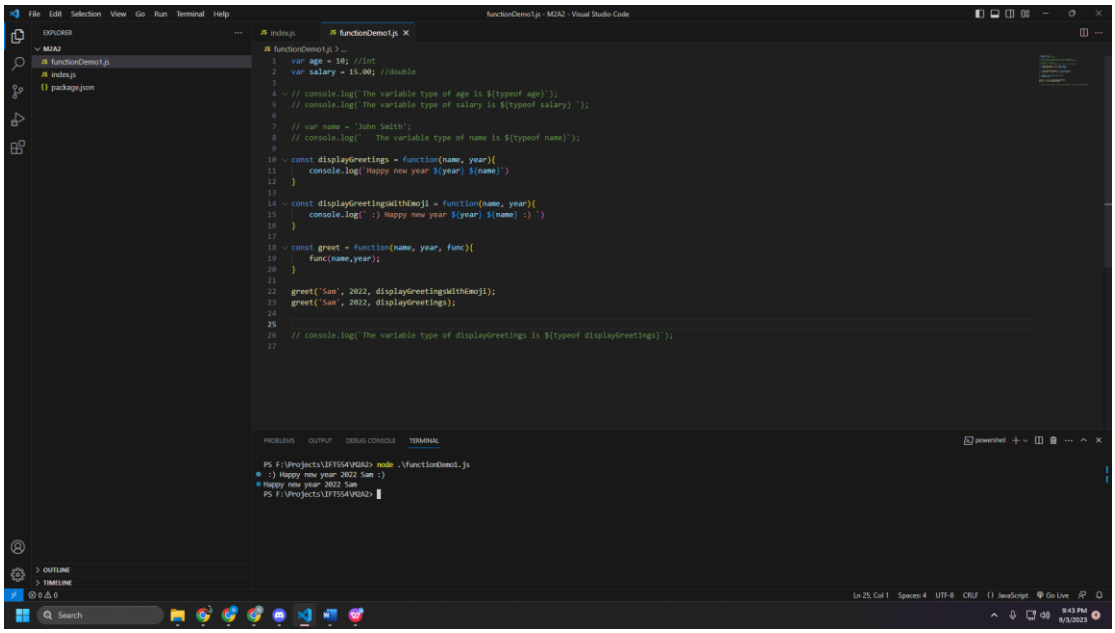
JavaScript Objects 5

```
var age = 10; //int
var salary = 15.00; //double

// console.log(`The variable type of age is ${typeof age}`);
// console.log(`The variable type of salary is ${typeof salary} `);

// var name = 'John Smith';
// console.log(`   The variable type of name is ${typeof name}`);

const displayGreetings = function(name, year){
    console.log(`Happy new year ${year} ${name}`)
}

const displayGreetingsWithEmoji = function(name, year){
    console.log(` :) Happy new year ${year} ${name} :) `)
}


var greet = {};

if(age>10){
    greet = displayGreetings;
}else{
    greet = displayGreetingsWithEmoji;
}

greet('Sam', 2022);



// console.log(`The variable type of displayGreetings is ${typeof
displayGreetings}`);
```

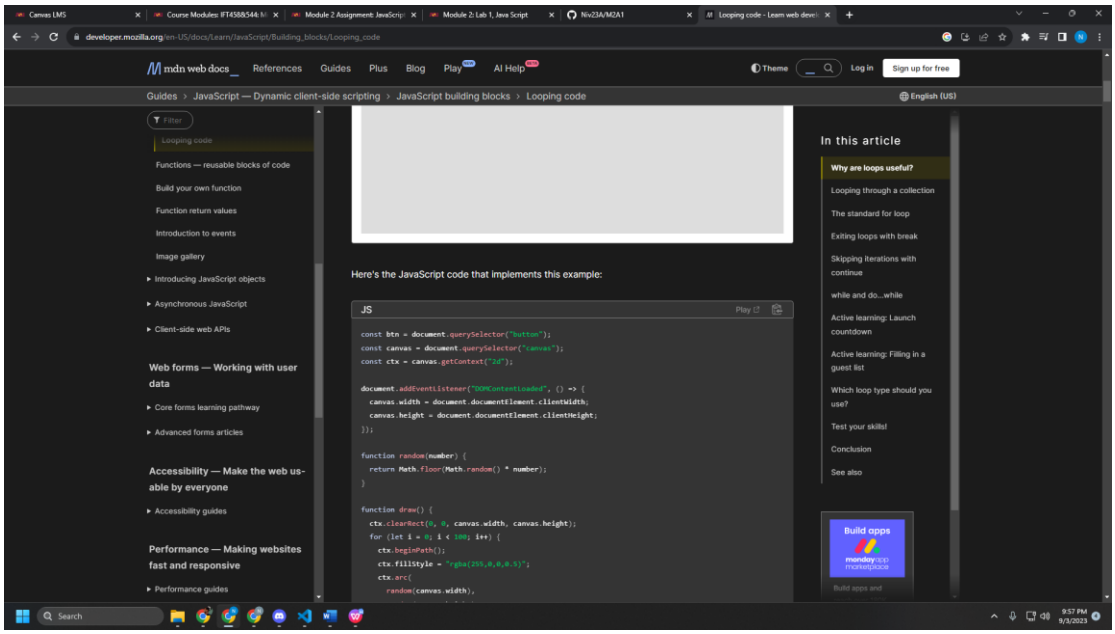

File Edit Selection View Go Run Terminal Help
functionDemo1.js - M2A2 - Visual Studio Code
EXPLORER
M2A2
functionDemo1.js
index.js
package.json
index.js
functionDemo1.js
functionDemo1.js > ...
var age = 10; //int
var salary = 15.00; //double
// console.log(`The variable type of age is ${typeof age}`);
// console.log(`The variable type of salary is ${typeof salary} `);
// var name = 'John Smith';
// console.log(`  The variable type of name is ${typeof name}`);
const displayGreetings = function(name, year){
console.log(`Happy new year ${year} ${name}`)
}
const displayGreetingsWithEmoji = function(name, year){
console.log(` :) Happy new year ${year} ${name} :) `)
}
var greet = {};
if(age>10){
greet = displayGreetings;
}else{
greet = displayGreetingsWithEmoji;
}
greet('Sam', 2022);
// console.log(`The variable type of displayGreetings is ${typeof displayGreetings}`);
PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
powershell
PS F:\Projects\IFTS54\M2A2> node .\functionDemo1.js
:) Happy new year 2022 Sam :)
PS F:\Projects\IFTS54\M2A2>
OUTLINE
TIMELINE
Ln 29, Col 1
Spaces: 4
UTF-8
CRLF
JavaScript
Go Live
Search
9:42 PM
9/3/2023

JavaScript Parameter (Function as a parameter) 6

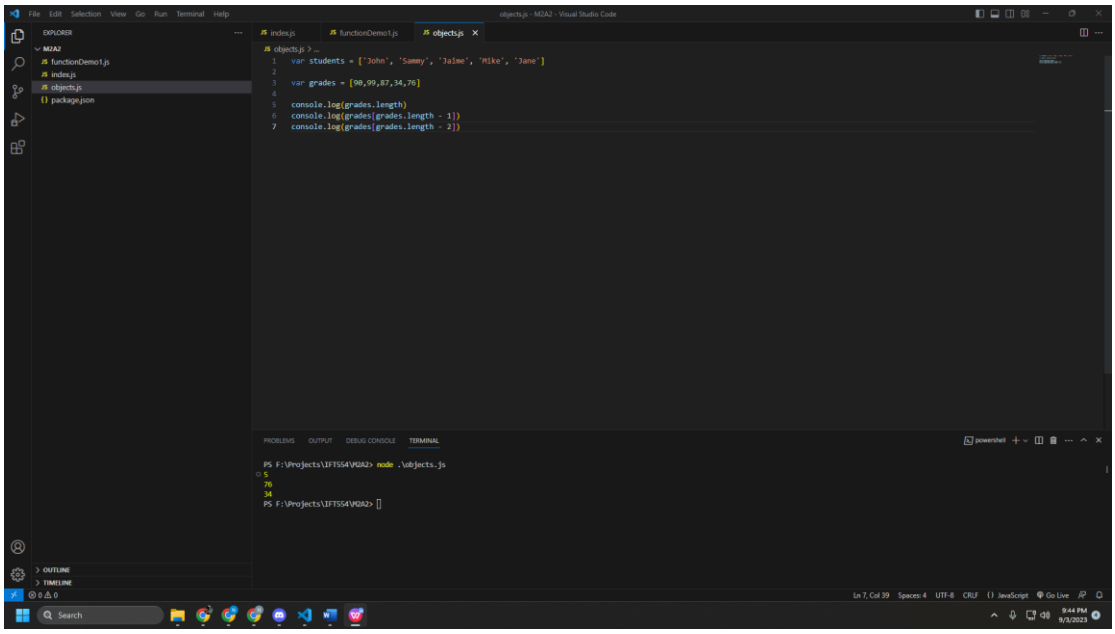
```
var age = 10; //int
var salary = 15.00; //double

// console.log(`The variable type of age is ${typeof age}`);
// console.log(`The variable type of salary is ${typeof salary} `);

// var name = 'John Smith';
// console.log(`    The variable type of name is ${typeof name}`);

const displayGreetings = function(name, year){
    console.log(`Happy new year ${year} ${name}`)
}

const displayGreetingsWithEmoji = function(name, year){
    console.log(` :) Happy new year ${year} ${name} :) `)
}

const greet = function(name, year, func){
    func(name,year);
}

greet('Sam', 2022, displayGreetingsWithEmoji);
greet('Sam', 2022, displayGreetings);


// console.log(`The variable type of displayGreetings is ${typeof
displayGreetings}`);
```



JavaScript Master Document Reference (required) 7

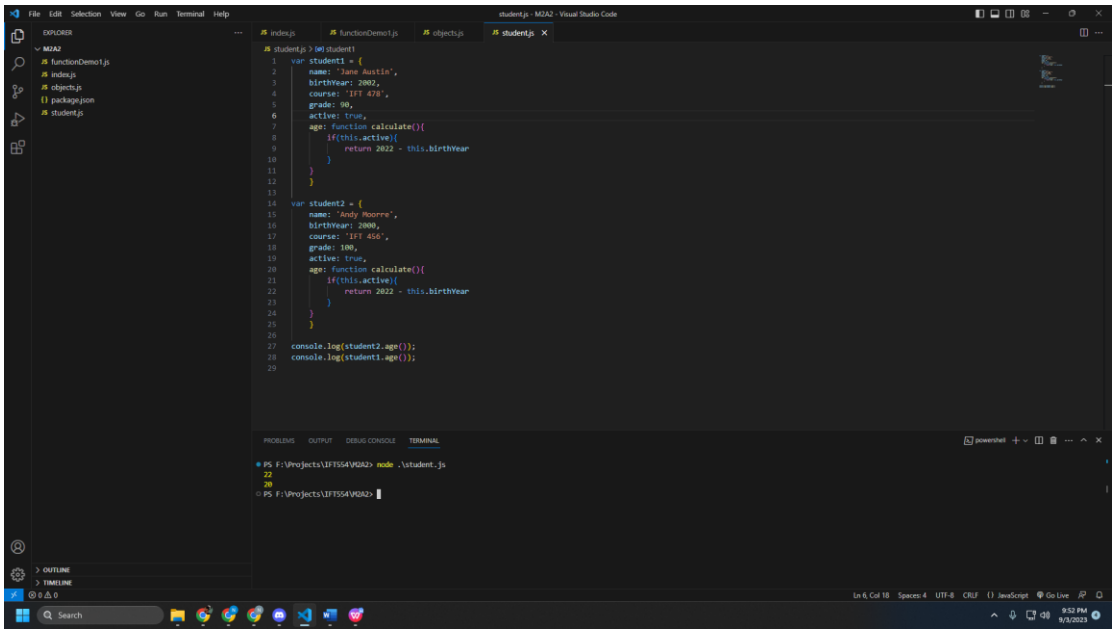


```
var students = ['John', 'Sammy', 'Jaime', 'Mike', 'Jane']

var grades = [90,99,87,34,76]

console.log(grades.length)
console.log(grades[grades.length - 1])
console.log(grades[grades.length - 2])
```

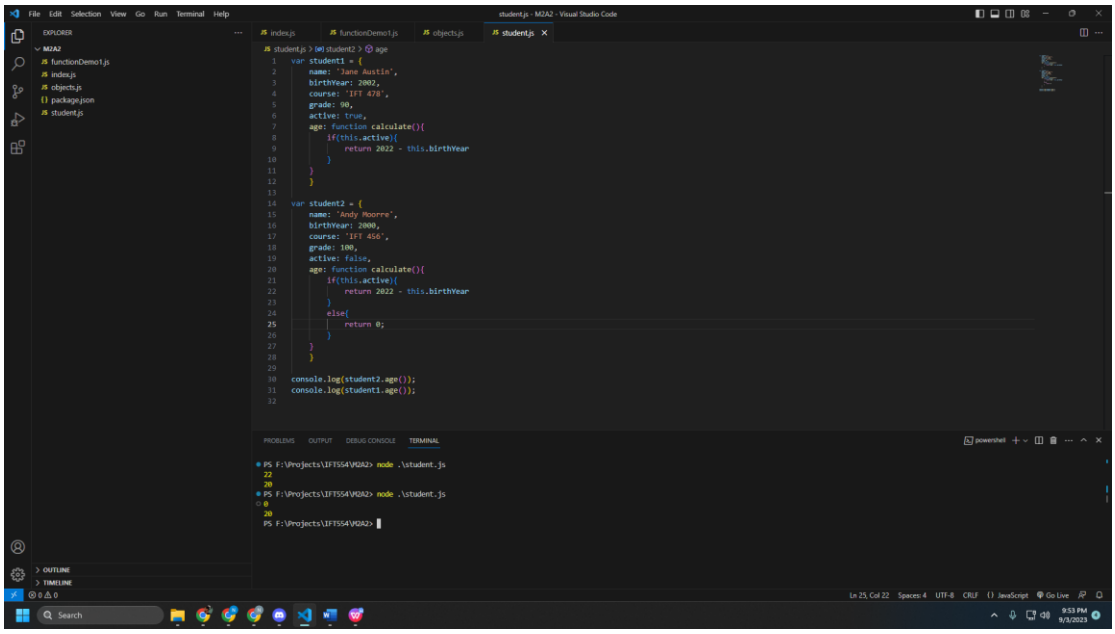


JavaScripts Arrays 9

```
var student1 = {
    name: 'Jane Austin',
    birthYear: 2002,
    course: 'IFT 478',
    grade: 90,
    active: true,
    age: function calculate(){
        if(this.active){
            return 2022 - this.birthYear
        }
    }
    }

var student2 = {
    name: 'Andy Moorre',
    birthYear: 2000,
    course: 'IFT 456',
    grade: 100,
    active: true,
    age: function calculate(){
        if(this.active){
            return 2022 - this.birthYear
        }
    }
    }

console.log(student2.age());
console.log(student1.age());
```

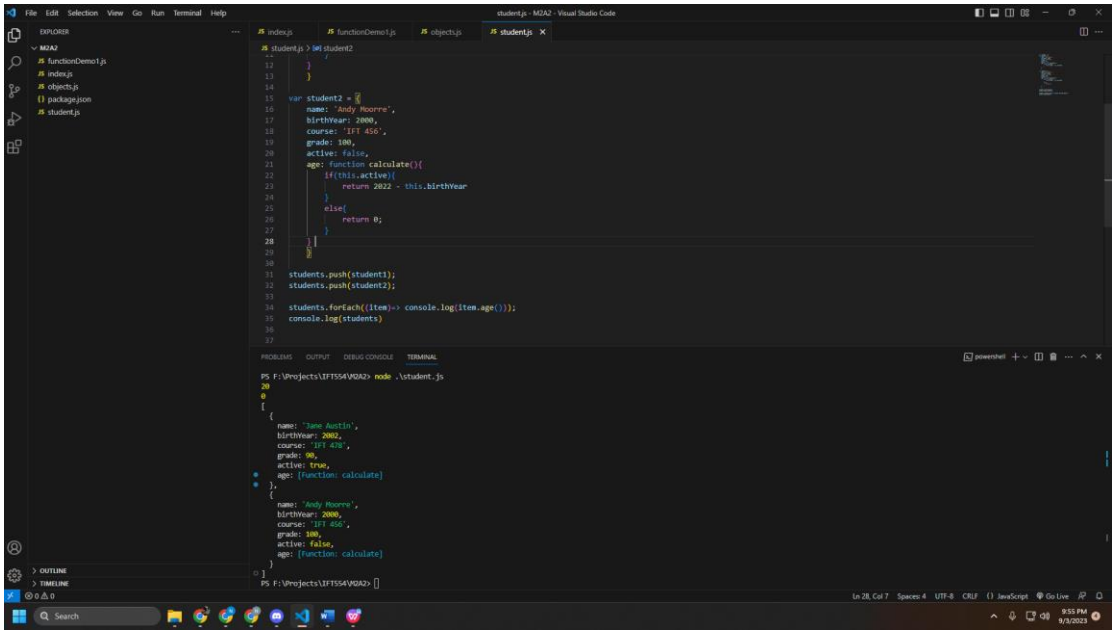


```
var student1 = {
    name: 'Jane Austin',
    birthYear: 2002,
    course: 'IFT 478',
    grade: 90,
    active: true,
    age: function calculate(){
        if(this.active){
            return 2022 - this.birthYear
        }
    }
    }

var student2 = {
    name: 'Andy Moorre',
    birthYear: 2000,
    course: 'IFT 456',
    grade: 100,
    active: false,
    age: function calculate(){
        if(this.active){
            return 2022 - this.birthYear
        }
        else{
            return 0;
        }
    }
    }
console.log(student2.age());
console.log(student1.age());
```



Accessing Elements of JavaScript Object Arrays 10

```
var students = []
var student1 = {
    name: 'Jane Austin',
    birthYear: 2002,
    course: 'IFT 478',
    grade: 90,
    active: true,
    age: function calculate(){
        if(this.active){
            return 2022 - this.birthYear
        }
    }
    }

var student2 = {
    name: 'Andy Moorre',
    birthYear: 2000,
    course: 'IFT 456',
    grade: 100,
    active: false,
    age: function calculate(){
        if(this.active){
            return 2022 - this.birthYear
        }
        else{
            return 0;
        }
    }
    }

students.push(student1);
students.push(student2);

students.forEach((item)=> console.log(item.age()));
console.log(students)
```


File Edit Selection View Go Run Terminal Help
student.js - M2A2 - Visual Studio Code
EXPLORER
M2A2
functionDemo1.js
index.js
objects.js
package.json
student.js
index.js
functionDemo1.js
objects.js
student.js
student.js > student2
var student2 = {
name: 'Andy Moorre',
birthYear: 2000,
course: 'IFT 456',
grade: 100,
active: false,
age: function calculate(){
if(this.active){
return 2022 - this.birthYear
}
else{
return 0;
}
}
}
students.push(student1);
students.push(student2);
students.forEach((item)=> console.log(item.age()));
console.log(students)
PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
powershell
PS F:\Projects\IFT554\M2A2> node .\student.js
20
0
[
{
name: 'Jane Austin',
birthYear: 2002,
course: 'IFT 478',
grade: 90,
active: true,
age: [Function: calculate]
},
{
name: 'Andy Moorre',
birthYear: 2000,
course: 'IFT 456',
grade: 100,
active: false,
age: [Function: calculate]
}
]
PS F:\Projects\IFT554\M2A2>
OUTLINE
TIMELINE
Ln 28, Col 7
Spaces: 4
UTF-8
CRLF
JavaScript
Go Live
Search
9:55 PM
9/3/2023