IFT458&544: Middleware Prog & Database Sec

(2023 Fall)

Subject: Module 2 Assignment: JavaScript language

Aishwarya Devi Akkim

Instructor name: Dinesh Sthapit

Due date: 09/3/2023

Introduction to JavaScript - 1

A computer screen with text and icons

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A computer screen shot of a program

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A computer screen shot of a program

Description automatically generated

JavaScript Function Refactoring 2

Code:

// function greetTheStudent(studentName){

// return `Hello there ${studentName}`;

// }

// const greetTheStudent = function (studentName){// parameter // anonymous function // expression

// return `Hello there ${studentName}`;

// }

// fat arrow function

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

const studentName = 'Mary Jane';

const greet = greetTheStudent(studentName);//argument

console.log(greet);

// console.log(message+ ' ' + studentName);

// console.log(message+ ' ' + studentName2);

Output:

PS C:\458\_544Assignments\Module2AssignmentJavaScriptlanguage> node index.js

Hello there Mary Jane

A computer screen shot of a black screen

Description automatically generated

A screenshot of a computer

Description automatically generated

JavaScript Refactoring 3

Code:

// function greetTheStudent(studentName){

// return `Hello there ${studentName}`;

// }

// const greetTheStudent = function (studentName){// parameter // anonymous function // expression

// return `Hello there ${studentName}`;

// }

// fat arrow function

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

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

// const studentName = 'Mary Jane';

// const greet = greetTheStudent(studentName);//argument

// console.log(greet);

const titleName = fullName('Mary', 'R', 'Jane');

console.log(titleName);

// console.log(message+ ' ' + studentName);

// console.log(message+ ' ' + studentName2);

Output:

PS C:\458\_544Assignments\Module2AssignmentJavaScriptlanguage> node index.js

Jane, R. Mary

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

JavaScript Variable 4

Code:

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}`);

Output:

PS C:\458\_544Assignments\Module2AssignmentJavaScriptlanguage> node functionDemo1.js

The variable type of age is number

The variable type of salary is number

The variable type of name is string

The variable type of displayGreetings is function

A screenshot of a computer

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A screenshot of a computer program

Description automatically generated

JavaScript Object 5

Code:

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}`);

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);

Output:

PS C:\458\_544Assignments\Module2AssignmentJavaScriptlanguage> node functionDemo1.js

Happy new year 2022 Sam😊😊

A screenshot of a computer program

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A computer screen with text and symbols

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JavaScript Parameter (Function as a parameter) 6

Code:

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}`);

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);

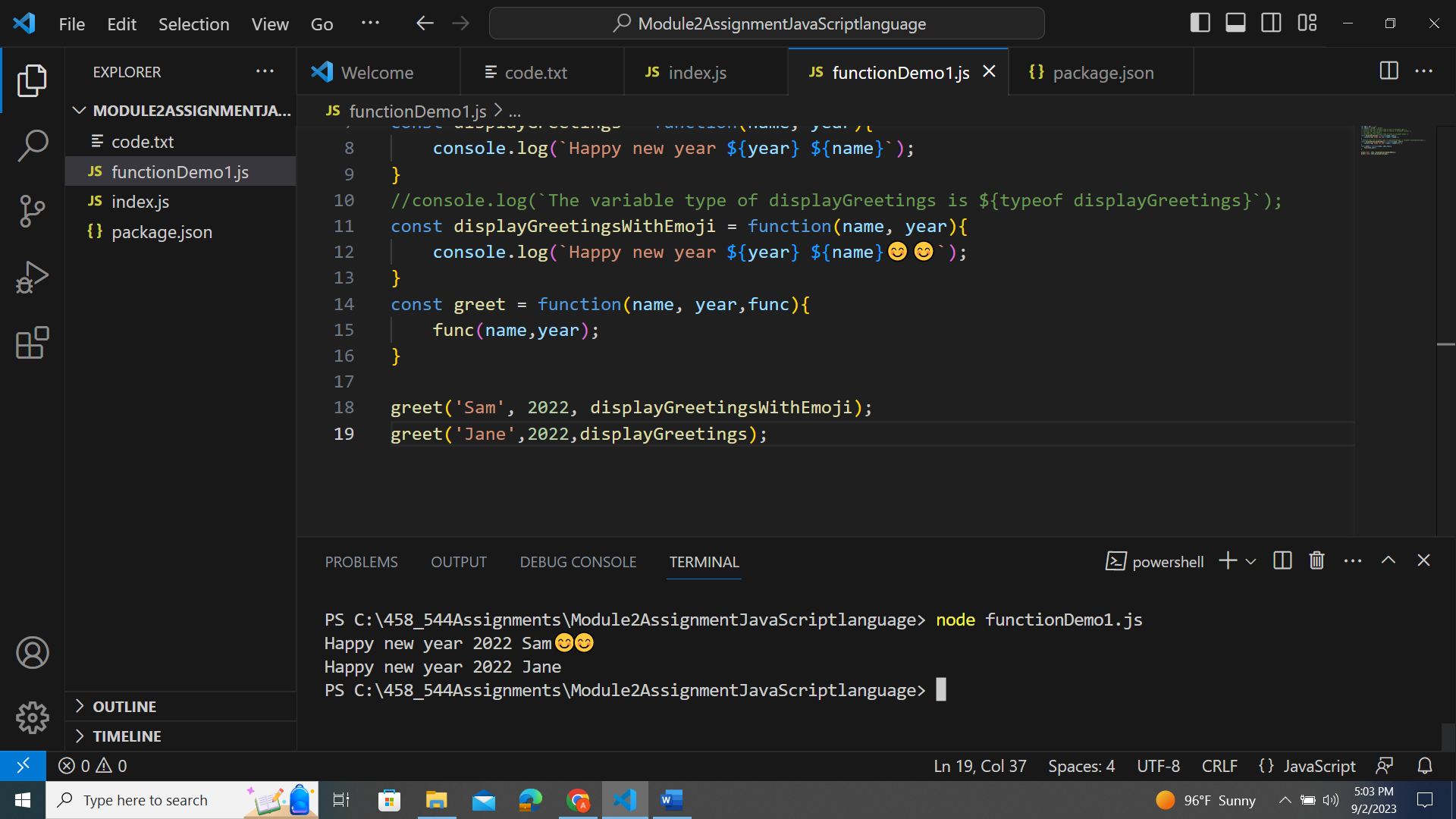
greet('Jane',2022,displayGreetings);

Output:

PS C:\458\_544Assignments\Module2AssignmentJavaScriptlanguage> node functionDemo1.js

Happy new year 2022 Sam😊😊

Happy new year 2022 Jane



JavaScript Objects II 8

Code:

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

// console.log(students[0]);

// console.log(students[2]);

// console.log(students.length);

var grades = [90,99,89,100,80];

// console.log(grades[0]);

// console.log(grades[2]);

console.log(grades.length);

console.log(grades[grades.length - 1]);

console.log(grades[grades.length - 2]);

Output:

PS C:\458\_544Assignments\Module2AssignmentJavaScriptlanguage> node objects.js

John

Jaime

5

90

89

5

PS C:\458\_544Assignments\Module2AssignmentJavaScriptlanguage> node objects.js

5

80

100

A screenshot of a computer program

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JavaScript 9

Code:

var student ={

name: 'Joan Smith',

birthYear: 2002,

course: 'IFT 458',

grade:90,

active: true,

age: function(){

return 2022 - this.birthYear;

}

}

// lambda funtion or fat arrow functions dont have acces to 'this' therefore no ouptut

var student2 ={

name: 'Andy Moore',

birthYear: 2000,

course: 'IFT 458',

grade:100,

active: false,

age: function(){

if(this.active){

return 2022 - this.birthYear;

}

else{

return 0;

}

}

}

// console.log(student['name']);

// console.log(student.name);

console.log(student2.age());

console.log(student.age());

Output:

PS C:\458\_544Assignments\Module2AssignmentJavaScriptlanguage> node student.js

22

PS C:\458\_544Assignments\Module2AssignmentJavaScriptlanguage> node student.js

22

20

PS C:\458\_544Assignments\Module2AssignmentJavaScriptlanguage> node student.js

NaN

NaN

PS C:\458\_544Assignments\Module2AssignmentJavaScriptlanguage> node student.js

0

20

A screenshot of a computer program

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A screenshot of a computer

Description automatically generated

JavaScript 10

Code:

var students = [];

var student ={

name: 'Joan Smith',

birthYear: 2002,

course: 'IFT 458',

grade:90,

active: true,

age: function(){

return 2022 - this.birthYear;

}

}

// lambda funtion or fat arrow functions dont have acces to 'this' therefore no ouptut

var student2 ={

name: 'Andy Moore',

birthYear: 2000,

course: 'IFT 458',

grade:100,

active: false,

age: function(){

if(this.active){

return 2022 - this.birthYear;

}

else{

return 0;

}

}

}

// console.log(student['name']);

// console.log(student.name);

students.push(student);

students.push(student2);

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

console.log(students);

// console.log(student2.age());

// console.log(student.age());

Output:

PS C:\458\_544Assignments\Module2AssignmentJavaScriptlanguage> node student.js

20

0

[

{

name: 'Joan Smith',

birthYear: 2002,

course: 'IFT 458',

grade: 90,

active: true,

age: [Function: age]

},

{

name: 'Andy Moore',

birthYear: 2000,

course: 'IFT 458',

grade: 100,

active: false,

age: [Function: age]

}

]

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