15 MIN

HOMEWORK REVIEW

CORRECTION / DEMO

PYTHON *to* JS

PART 3

OBJECTS

{ key: value, key: value }

Python dictionaries are objects in JavaScript

But more powerful !!

15 MIN

An object is declared or dynamically created

Code declared

```
let car = {
    model: '570',
    color: 'white',
    brand: 'Toyota',
};
```

Dynamically created

```
let person = {
    name: 'rady',
    age: 26
};
person['province'] = 'BMC';
// or
person.position = "Trainer";

console.log(person);
```

Output

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▶ {name: "rady", age: 26, province: "BMC", position: "Trainer"}

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An object attributes can be accessed either Using [] or .

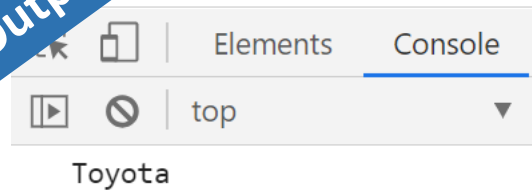Access object attributes using []

Access object attributes using .

```
let car = {
    model: '570',
    color: 'white',
    brand: 'Toyota',
};
```

```
console.log(car['brand']);
```

Output

Elements   Console

top   ▼
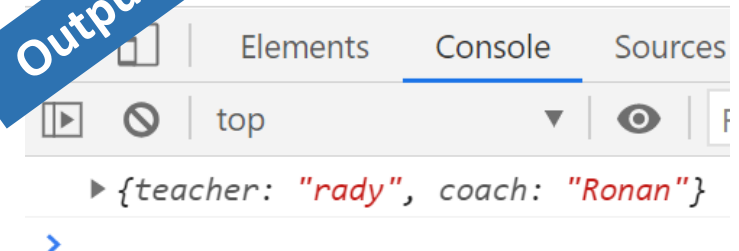
Toyota

>

```
let car = {
    model: '570',
    color: 'white',
    brand: 'Toyota',
};
```

```
console.log(car.brand);
```

15 MIN

An object can be composed of other objects

```
let students = {
    generation: {
        year: 2021,
        major: {
            mobile: {
                teacher: 'rady',
                coach: 'Ronan'
            },
            web: {
                teacher: 'Him',
                coach: 'Clement'
            }
        },
        school: 'PNC'
    }
}
console.log(students.generation.major.mobile);
```

Output

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▶ {teacher: "rady", coach: "Ronan"}

What this code will print ?

```
let teachers = {
    name: 'rady',
    age: 20,
};

teachers.position = "trainer";
console.log(teachers);
```

A. ▶ *{name: "rady", age: 20, position: "trainer"}*

B. ▶ *{name: "rady", age: 20}*

C. ▶ *{name: "trainer", age: 20}*

D. undefined

What this code will print ?

```javascript
let teachers = {
    name: 'ronan',
    age: 20,
};
delete teachers.age;
console.log(teachers);
```

A.
▶ {age: 20}

B.
▶ {name: "ronan", age: 20}

C.
▶ {name: "ronan"}

D.
undefined

What this code will print ?

```
let teachers = {
    name: 'ronan',
    age: 20,
};
console.log(teachers.name);
```

A.
ronan

B.
20

C.
name

D.
undefined

What this code will print ?

```
let teachers = {
    name: 'ronan',
    age: 20,
};
teachers.name = "rady";
teachers.age = 26;
console.log(teachers);
```

A.
▶ {name: "rady", age: 26}

B.
▶ {name: "ronan", age: 20}

C.
▶ {name: "ronan"}

D.
undefined

2 ways to declare a function

Normal function

Arrow function

```javascript
// Declaration
function sum(para1, para2) {
    return para1 + para2;
}


// Call
let result = sum(10, 30);
console.log(result);
```

```javascript
// Declaration
let sum = (para1, para2) => {
    return para1 + para2;
}


// Call
let result = sum(100, 300);
console.log(result);
```

What this code will print ?

```javascript
let compute = (array) => {
    let sum = 0;
    let x = 0;
    for (let value of array) {
        sum += value;
    }
    x = sum / array.length;
    return x;
}

let arr = [10, 5, 3];
let result = compute(arr);
console.log(result);
```

A.

5

B.

7.75

C.

6

D.

undefined

What this code will print ?

```javascript
let square = (n) => {
    return n * n;
}


let arr = [1, 2, 3, 4];

for (let i in arr) {
    arr[i] = square(arr[i]);
}
console.log(arr);
```

A.

[1, 4, 9, 16]

B.

[2, 4, 6, 8]

C.

[1, 2, 3, 4]

D.

undefined

What this code will print ?

```javascript
let square = (n) => {
    return n - 1;
}


let arr = [1, 2, 3, 4];

for (let i in arr) {
    arr[i] = square(arr[i]) * square(arr[i]);
}
console.log(arr);
```

A.
[0, 1, 2, 3]

B.
[2, 4, 6, 8]

C.
[0, 1, 4, 9]

D.
undefined

What this code will print ?

```
let students = {
    name: 'bora',
    age: 18,
    province: 'PHNOM PENH'
}
console.log(students['name']);
```

A.

bora

B.

18

C.

PHNOM PENH

D.

undefined

What this code will print ?

```
let students = [
    { name: 'bora', age: 18, province: 'PHNOM PENH' },
    { name: 'dara', age: 25, province: 'SIEM REAP' },
    { name: 'romdul', age: 40, province: 'KAMPONG CHNANG' },
];
console.log(students[1]['age']);
```

A.

25

B.

18

C.

40

D.

undefined

What this code will print ?

```
let students = [
    { name: 'bora', age: 18, province: 'PHNOM PENH' },
    { name: 'dara', age: 25, province: 'SIEM REAP' },
    { name: 'romdul', age: 40, province: 'KAMPONG CHNANG' },
];
console.log(students[1]['provinces']);
```

A.
25

B.
18

C.
40

D.
undefined

What this code will print ?

```javascript
let students = [
    { name: 'bora', age: 18, province: 'PHNOM PENH' },
    { name: 'dara', age: 25, province: 'SIEM REAP' },
    { name: 'romdul', age: 40, province: 'KAMPONG CHNANG' },
];
let x = students[0]['age'];
for (let student of students) {
    if (x > student['age']) {
        x = student['age'];
    }
}
console.log(x);
```

A.
25

B.
18

C.
40

D.
undefined

What this code will print ?

```javascript
let students = [
    { name: 'bora', age: 18, province: 'PHNOM PENH' },
    { name: 'dara', age: 25, province: 'SIEM REAP' },
    { name: 'romdul', age: 40, province: 'KAMPONG CHNANG' },
];
let x = students[0]['age'];
let y = "";
for (let student of students) {
    if (x < student['age']) {
        x = student['age'];
    }
}
for (let student of students) {
    if (x == student['age']) {
        y = student['name'];
    }
}
console.log(y.toUpperCase());
```

A.

DARA

B.

ROMDUL

C.

bora

D.

undefined

EXERCICE 🕐 30 MIN

Read the instructions
Submit your script.js