Laporan Praktikum "Pemrograman 1"

Modul 1 – Aturan dasar

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Nilai = 70

Abstrak melakukan pengetesan terhadap kode-kode pemrograman dengan menggunakan bahasa pemrograman tingkat tinggi yaitu javascript. Menganalisi penggunaan javascript dari pertemuan ke-3 sampai ke-7 tentang aturan dasar dan variable, tipe data dan keluaran, operator, array, dan struktur logika.

Menggunakan 4 aturan dasar yaitu Statement, Case sensitivity, Whitespace, dan Baris komentar. Menggunakan 2 jenis tipe data yaitu tipe data primitive))e (primitive type) dan tipe data object menggunakan beberapa operator yaitu Operator Aritmatika / Matematika, Operator Penugasan / Assignment, Operator Perbandingan, Operator Logika, Operator String, Operator Kondisional, dan Operator Typeof

I. PENDAHULUAN

Menguasai bahasa pemrograman dalam pembuatan situs web itu sangatlah penting. Dari bahasa pemrograman tersebut lah muncul kode-kode yang dapat di terjemahkan computer menjadi sebuah situs web

Disini saya menganalisi bahasa pemrograman javascript aturan dasar yang akan mengimplementasikan Statement, Case sensitivity, Whitespace, dan Baris komentar menggunakan situs freecodecamp dan hasilnya akan saya cantumkan di bawah ini.

II. TINJAUAN PUSTAKA

A. Aturan Dasar

Aturan dasar pada pemrograman adalah aturan dasar yang digunakan dalam penulisan kode program, dalam hal ini JavaScript. Ada 4 aturan dasar yang akan dibahas, yaitu Statement, Case sensitivity, Whitespace, dan Baris komentar

B. Tipe Data dan Keluaran

Tipe data adalah jenis data berdasarkan isi dan sifatnya. Logika: tipe data adalah jenis dari sesuatu yang dimasukkan ke dalam kotak kosong (variable) yang hanya khusus dibuat untuk jenis benda dengan jenis tertentu. Tipe data dalam JavaScript terdiri dari 2 kelompok yaitu tipe data primitive (primitive type) Dan tipe data object.

C. Operator

Operator dalam JavaScript adalah sebuah symbol yang digunakan untuk melakukan operasi. Operator digunakan untuk memproses data yang sudah diinput ke dalam JavaScript. Operator tersebut yaitu Operator Aritmatika / Matematika, Operator Penugasan / Assignment, Operator Perbandingan, Operator Logika, Operator String, Operator Kondisional, dan Operator Typeof

D. Array

Salah satu struktur data yang sering digunakan dalam pemrograman adalah **Array**. Array merupakan struktur data yang digunakan untuk **menyimpan sekumpulan data** dalam satu tempat. Setiap data dalam Array memiliki indeks, sehingga kita akan mudah memprosesnya

III. METODE PRAKTIKUM

Praktikum ini menganalisis tentang kode-kode javascript didalam situs web freecodecamp yang di akses menggunakan google crome. Saya mengerjakan 48 pertanyaan disana dengan menggunakan laptop yang terakses dengan internet setiap 1 soal memiliki 1 solusi dan solusi tersebut di download serta akan saya cantumkan di laporan ini. Waktu pengerjaan selama 50 menit dikelas dan dijaga oleh dosen pengampu praktikum pemrogram 1.

IV. HASIL DAN ANALISIS

1. comment-your-javascript-code

```
//saya suka belajar
/*saya suka belajar
dengan giat*/
```

2. declare-javascript-variables

```
var myName;
```

3. storing-values-with-the-assignment-operator

```
// Setup
var a;
a = 7;
// Only change code below this line
```

4. assigning-the-value-of-one-variable-to-another

```
// Setup
var a;
a = 7;
var b;
b = a;
// Only change code below this line
```

5. initializing-variables-with-the-assignment-operator (1)

```
var a = 9;
```

6. declare-string-variables

```
var myFirstName;
```

```
myFirstName = "Muhammad";
var myLastName;
myLastName = "Iqbal";
```

7. understanding-uninitialized-variables
```
// Only change code below this line
var a;
a = 5;
var b;
b = 10;
var c;
c ="I am a"
// Only change code above this line
a = a + 1;
b = b + 5;
c = c + " String!";
```

8. understanding-case-sensitivity-in-variables
```
// Variable declarations
var studlyCapVar;
var properCamelCase;
var titleCaseOver;
// Variable assignments
studlyCapVar = 10;
properCamelCase = "A String";
titleCaseOver = 9000;
```

9. explore-differences-between-the-var-and-let-keywords
```
let catName ;
catName = "Oliver";
let catSound;
catSound = "Meow!";
```

10. declare-a-read-only-variable-with-the-const-keyword
```
const FCC = "freeCodeCamp"; // Change this line
let fact = "is cool!"; // Change this line
fact = "is awesome!";
console.log(FCC, fact); // Change this line
```

11. add-two-numbers-with-javascript
```
const sum = 10 + 10;
```

12. subtract-one-number-from-another-with-javascript
```
const difference = 45 - 33;
```

13. multiply-two-numbers-with-javascript
```
const product = 8 * 10;
```

14. divide-one-number-by-another-with-javascript
```
const quotient = 66 / 33;
```

15. increment-a-number-with-javascript
```
let myVar = 87;
```

16. decrement-a-number-with-javascript
```
let myVar = 11;
// Only change code below this line
```

```
myVar =-- myVar;
```

17. create-decimal-numbers-with-javascript
```
const myDecimal = 5.7;
// Only change code below this line
```

18. multiply-two-decimals-with-javascript
```
const product = 5.0 * 1.0;
```

19. divide-one-decimal-by-another-with-javascript
```
const quotient = 4.4 / 2.0; // Change this line
```

20. finding-a-remainder-in-javascript
```
const remainder = 11%3;
```

21. access-array-data-with-indexes const
```
myArray = [50, 60, 70];
console.log(myArray[0]);
const myData = myArray[0];
```

22. access-multi-dimensional-arrays-with-indexes
```
const myArray = [
 [1, 2, 3],
 [4, 5, 6],
 [7, 8, 9],
 [[10, 11, 12], 13, 14],
];
const myData = myArray[2][1];
```

23. appending-variables-to-strings
```
// Change code below this line
const someAdjective = "muhammad" + "iqbal" + "kt";
let myStr = "Learning to code is ";
myStr += someAdjective;
```

24. compound-assignment-with-augmented-addition
```
let a = 3;
let b = 17;
let c = 12;
// Only change code below this line
a += 12;
b += 9;
c += 7;
```

25. compound-assignment-with-augmented-division
```
let a = 48;
let b = 108;
let c = 33;
// Only change code below this line
a /= 12;
b /= 4;
c /= 11;
```

26. compound-assignment-with-augmented-multiplication
```
let a = 5;
let b = 12;
let c = 4.6;
```

```
// Only change code below this line
a *= 5;
b *= 3;
c *= 10;
```

27. compound-assignment-with-augmented-subtraction
```
let a = 11;
let b = 9;
let c = 3;
// Only change code below this line
a -= 6;
b -=  15;
c -= 1;
```

28. concatenating-strings-with-plus-operator
```
const myStr ="This is the start. "+"This is the end."; // Change
this line
```

29. concatenating-strings-with-the-plus-equals-operator
```
let myStr = "This is the first sentence. ";
myStr += "This is the second sentence.";
```

30. constructing-strings-with-variables
```
// Only change code below this line
const myName = "muhammad";
const myStr = "iqbal" + myName + "tk";
```

31. escape-sequences-in-strings
```
const myStr = "FirstLine\n\t\\SecondLine\nThirdLine";//
Change this line
```

32. escaping-literal-quotes-in-strings
```
const myStr = "I am a \"double quoted\" string inside \"double
quotes\".";// Change this line
```

33. find-the-length-of-a-string
```
// Setup
let lastNameLength = 0;
const lastName = "Lovelace";
// Only change code below this line
lastNameLength = lastName.length;
// Only change code below this line
myVar =++ myVar;
```

34. manipulate-arrays-with-pop
```
// Setup
const myArray = [["John", 23], ["cat", 2]];
const removedFromMyArray = myArray.pop();
// Only change code below this line
```

35. manipulate-arrays-with-push
```
// Setup
const myArray = [["John", 23], ["cat", 2]];
myArray.push( ["dog", 3]);
// Only change code below this line
```

36. manipulate-arrays-with-unshift
```
// Setup
```

```
const myArray = [["John", 23], ["dog", 3]];
myArray.shift();
myArray.unshift(["Paul", 35],);
// Only change code below this line
```

37. modify-array-data-with-indexes
```
// Setup
const myArray = [18, 64, 99];
myArray[0] = [45]
// Only change code below this line
```

38. nest-one-array-within-another-array
```
// Only change code below this line
const myArray = ["buah", "hewan", [2,3]];
```

39. quoting-strings-with-single-quotes
```
const    myStr    ='<a    href="http://www.example.com"
target="_blank">Link</a>';
```

40. shopping-list
```
const myList = [
 ["Canned Beans", 3],
 ["Milk Galon", 1],
 ["Cereal", 2],
 ["Toilet Paper", 12],
 ["Sack of Rice", 1]
];
```

41. store-multiple-values-in-one-variable-using-javascript-arrays
```
// Only change code below this line
const myArray = ["buah", 4];
```

42. understand-string-immutability
```
// Setup
let myStr = "Jello World";
// Only change code below this line
myStr = "Hello World"; // Change this line
// Only change code above this line
```

43. use-bracket-notation-to-find-the-first-character-in-a-string
```
// Setup
let firstLetterOfLastName = "";
const lastName = "Lovelace";
// Only change code below this line
firstLetterOfLastName = lastName[0]; // Change this line
```

44. use-bracket-notation-to-find-the-last-character-in-a-string
```
// Setup
const lastName = "Lovelace";
// Only change code below this line
const lastLetterOfLastName = lastName[lastName.length - 1];
// Change this line
```

45. use-bracket-notation-to-find-the-nth-character-in-a-string

```
// Setup
const lastName = "Lovelace";
// Only change code below this line
const thirdLetterOfLastName = lastName [2]; // Change this
line
```

46. use-bracket-notation-to-find-the-nth-to-last-character-in-a-string

```
// Setup
const lastName = "Lovelace";
// Only change code below this line
const     secondToLastLetterOfLastName     =     lastName
[lastName.length - 2]; // Change this line
```

47. word-blanks

```
const myNoun = "dog";
const myAdjective = "big";
const myVerb = "ran";
const myAdverb = "quickly";
// Only change code below this line
const wordBlanks = "The " + myAdjective + " " + myNoun +
" " + myVerb + " " + myAdverb + ".";; // Change this line
// Only change code above this line
```

48. shopping-list

```
const myList = [
  ["Canned Beans", 3],
  ["Milk Galon", 1],
  ["Cereal", 2],
  ["Toilet Paper", 12],
  ["Sack of Rice", 1]
];
```

V. KESIMPULAN

situs web freecodecamp membantu mahasiswa untuk mengingat dan mengasah kemampuan dalam pemrograman dengan bahasa pemrograman javascript yaitu menyelesaikan kode-kode yang ada di situs freecodecamp. Saya sudah berhasil menyelesaikan dari nomer 1 sampai 48 dan hasilnya sudah saya lampirkan di atas.

DAFTAR PUSTAKA

Buku Sakti Pemrograman Web: HTML, CSS, PHP, MySQL & Javascript **Oleh Didik Setiawan**

JavaScript: Dari A Sampai Z **Oleh Vivian Siahaan, Rismon Hasiholan Sianipar**

Dasar Pemrograman Internet dengan XHTML / CSS / Javascript / DHTML **Oleh Rismon Hasiholan Sianipar**