

LAPORAN DESAIN WEB

MODUL 6 – JAVASCRIPT

Dosen Pengampu : Ibu Vearen Dika Sofirudin, S.pd., M.ed.



Oleh :

Nabila Shafa Salsabila Nurhardriani

NIM. K3524081

PROGRAM STUDI PENDIDIKAN TEKNIK INFORMATIKA DAN KOMPUTER

FAKULTAS KEGURUAN DAN ILMU PENDIDIKAN

UNIVERSITAS SEBELAS MARET

2025

DESAIN WEB | MODUL 6 – JAVASCRIPT

I. Tujuan Praktikum

1. Mahasiswa memahami struktur javascript
2. Mahasiswa mampu mengimplementasikan javascript dalam pembuatan web

II. Ringkasan Materi

JavaScript merupakan bahasa pemrograman yang berfungsi menambah interaktivitas pada website. Bahasa ini bekerja berdampingan dengan **HTML** dan **CSS** untuk menciptakan halaman web yang dinamis.

Beberapa pokok materi dalam modul:

1. Struktur dan Penulisan JavaScript

- Dapat ditulis secara *internal* menggunakan tag <script> dalam file HTML.
- Dapat ditulis secara *eksternal* dalam file berekstensi .js.
- Dapat dipanggil menggunakan *event handler* (misalnya onclick).
- Dapat disisipkan pada *URL handler* (href="javascript:").

2. Variabel dan Tipe Data

- JavaScript menyimpan nilai dalam variabel tanpa menentukan tipe secara eksplisit.
- Jenis data meliputi: numerik, string, boolean, null, dan object.

3. Fungsi Output

- console.log() → menampilkan hasil di *console*.
- alert() → menampilkan pesan peringatan.
- document.write() → menulis langsung ke halaman HTML.
- innerHTML → menampilkan hasil di dalam elemen HTML tertentu.

4. Document Object Model (DOM)

- DOM digunakan untuk memanipulasi elemen HTML secara dinamis.
- JavaScript dapat menambah, menghapus, mengubah elemen serta gaya CSS, dan menanggapi event pengguna.

III. Alat dan Bahan

1. Laptop/Komputer
2. Visual Studio Code

IV. Langkah Kerja

- a. Latihan 1

```

1  <!DOCTYPE html>
2  <html lang="id">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Kalkulator Sederhana</title>
7      <style>
8          body {
9              font-family: Arial, sans-serif;
10             text-align: center;
11             margin-top: 50px;
12         }
13         input {
14             width: 100px;
15             margin: 5px;
16             padding: 5px;
17             text-align: center;
18         }
19         button {
20             margin: 5px;
21             padding: 8px 12px;
22             cursor: pointer;
23         }
24     </style>
25 </head>
26 <body>
27     <h2>Kalkulator Sederhana</h2>
28
29     <input type="number" id="angka1" placeholder="Angka 1">
30     <input type="number" id="angka2" placeholder="Angka 2">
31     <br>
32
33     <button onclick="hitung('tambah')">Jumlah (+)</button>
34     <button onclick="hitung('kurang')">Kurang (-)</button>
35     <button onclick="hitung('kali')">Kali (X)</button>
36     <button onclick="hitung('bagi')">Bagi (/)</button>
37
38     <h3>Hasil: <span id="hasil">0</span></h3>
39
40     <script>
41         function hitung(operasi) {
42             const a = parseFloat(document.getElementById("angka1").value);
43             const b = parseFloat(document.getElementById("angka2").value);
44             let hasil = 0;
45
46             if (isNaN(a) || isNaN(b)) {
47                 alert("Masukkan kedua angka terlebih dahulu!");
48                 return;
49             }
50
51             switch (operasi) {
52                 case 'tambah': hasil = a + b; break;
53                 case 'kurang': hasil = a - b; break;
54                 case 'kali': hasil = a * b; break;
55                 case 'bagi':
56                     if (b === 0) {
57                         alert("Tidak bisa dibagi dengan nol!");
58                         return;
59                     }
60                     hasil = a / b;
61                     break;
62             }
63
64             document.getElementById("hasil").textContent = hasil;
65         }
66     </script>
67 </body>
68 </html>

```

Hasil :



b. Latihan 2

```

1  <!DOCTYPE html>
2  <html lang="id">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Highlight Paragraph</title>
7
8      <style>
9          body {
10              font-family: "Times New Roman", Times, serif;
11              margin: 40px;
12              font-size: 18px;
13              line-height: 1.6;
14          }
15
16          .highlight {
17              background-color: #yellow;
18              color: #red;
19              font-weight: bold;
20          }
21
22          button {
23              margin-top: 15px;
24              padding: 8px 15px;
25              cursor: pointer;
26          }
27      </style>
28  </head>
29  <body>

```

30 <h2>PTIK FKIP UNS</h2>
31
32 <p>
33 The Faculty of Teacher Training and Education, Sebelas Maret University, Surakarta is an
34 Educational Personnel Education Institution (LPTK) which has 24 study programs in 6 majors.
35 Each study program has its own characteristics in producing superior, strong and intelligent educational
36 staff.
37 </p>
38
39 <p>
40 The Informatics and Computer Technology Education (PTIK) study program is planned to take
41 shelter in the management of the Engineering and Vocational Education (PTK) department.
42 This placement revises our previous statement where the PTIK study program is under the PMIPA department.
43 PTIK is a study program that will produce graduates who are prioritized to teach in vocational/vocational
44 programs. So, it would be better if PTIK was under the PTK department which oversees vocational programs such as
45 Building Engineering Education, and Mechanical Engineering Education.
46 To meet the needs of lecturers in the field of information technology that cannot be met by the PTK department,
47 PTIK will conduct resource sharing with the mathematics study program.
48 </p>
49
50 <button onclick="toggleHighlight()">Highlight Paragraph</button>
51
52 <script>
53 function toggleHighlight() {
54 const texts = document.querySelectorAll(".target");
55 texts.forEach(span =>
56 span.classList.toggle("highlight");
57);
58 }
59 </script>

61 </body>
62 </html>

Hasil :

PTIK FKIP UNS

The Faculty of Teacher Training and Education, Sebelas Maret University, Surakarta is an Educational Personnel Education Institution (LPTK) which has 24 study programs in 6 majors. Each study program has its own characteristics in producing superior, strong and intelligent educational staff.

The Informatics and Computer Technology Education (PTIK) study program is planned to take shelter in the management of the Engineering and Vocational Education (PTK) department. This placement revises our previous statement, where the PTIK study program is under the PMIPA department. PTIK is a study program that will produce graduates who are prioritized to teach in vocational/vocational programs. So, it would be better if PTIK was under the PTK department which oversees vocational programs such as Building Engineering Education, and Mechanical Engineering Education. To meet the needs of lecturers in the field of information technology that cannot be met by the PTK department, PTIK will conduct resource sharing with the mathematics study program.

Highlight Paragraph

V. Simpulan

Melalui modul ini, kami belajar bagaimana **JavaScript** digunakan untuk meningkatkan interaktivitas halaman web. JavaScript memungkinkan manipulasi elemen HTML, pengelolaan data, serta respons terhadap aksi pengguna tanpa perlu memuat ulang halaman. Pemahaman dasar seperti penggunaan variabel, tipe data, DOM, dan event handling menjadi pondasi penting sebelum melangkah ke pengembangan aplikasi web yang lebih kompleks.