

Tugas / Tutorial 7 - Javascript dan JQuery

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1. Struktur HTML Dasar

```
<!DOCTYPE html>
<html lang="id">
<head>
  <!-- Metadata dan link ke resource eksternal -->
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-
scale=1.0">
  <title>Tugas JavaScript & jQuery - Rizky Cristian</title>

  <!-- Resource eksternal -->
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0-
alpha1/dist/css/bootstrap.min.css" rel="stylesheet">
  <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap-
icons@1.10.5/font/bootstrap-icons.css">
  <link
href="https://fonts.googleapis.com/css2?family=Poppins:wght@400;600&d
isplay=swap" rel="stylesheet">
  <script src="https://code.jquery.com/jquery-3.6.1.min.js"></script>
</head>
<body>
  <!-- Konten halaman -->
</body>
</html>
```

2. CSS Kustom

```
<style>
  body {
    font-family: 'Poppins', sans-serif;
    background: linear-gradient(to right, #e0eafc, #cfdef3);
    padding-top: 20px;
    color: #333;
  }

  .card {
    box-shadow: 0 4px 8px rgba(0,0,0,0.1);
    border: none;
    border-radius: 12px;
    transition: transform 0.3s ease, box-shadow 0.3s ease;
    margin-bottom: 25px;
  }
```

```
.card:hover {
  transform: translateY(-5px);
  box-shadow: 0 10px 20px rgba(0,0,0,0.15);
}

.card-header {
  background-color: #0d6efd;
  color: white;
  border-radius: 12px 12px 0 0 !important;
}

#color-box {
  width: 200px;
  height: 200px;
  background-color: #e9ecef;
  margin: 20px auto;
  display: flex;
  align-items: center;
  justify-content: center;
  border-radius: 12px;
  transition: background-color 0.4s ease;
}

.btn-custom {
  margin: 5px;
  min-width: 170px;
}

.input-group {
  max-width: 350px;
  margin: 0 auto 15px;
}

.result-box {
  background-color: #f1f8ff;
  padding: 15px;
  border-radius: 10px;
  margin-top: 15px;
  text-align: center;
  font-weight: bold;
}

footer {
  margin-top: 40px;
  background-color: white;
  padding: 15px;
  border-radius: 10px;
  box-shadow: 0 0 10px rgba(0,0,0,0.05);
}
```

```

/* Tambahan gaya mahasiswa */
.handwritten {
  font-family: 'Comic Sans MS', cursive, sans-serif;
}

.sticker {
  position: absolute;
  right: 20px;
  top: -15px;
  background-color: #ffc107;
  padding: 5px 10px;
  border-radius: 50%;
  transform: rotate(15deg);
  font-size: 0.8rem;
  box-shadow: 0 2px 5px rgba(0,0,0,0.2);
}

.note {
  background-color: #fff8e1;
  border-left: 4px solid #ffc107;
  padding: 10px;
  margin: 10px 0;
  font-size: 0.9rem;
}
</style>
</head>
<body>

```

3. Hitung Jumlah Bilangan Ganjil

- **HTML :**

```

<div class="card">
  <div class="card-header position-relative">
    <h2 class="h5 mb-0"><i class="bi bi-calculator"></i> Hitung
    Jumlah Bilangan Ganjil</h2>
  </div>
  <div class="card-body text-center">
    <div class="input-group mb-3">
      <label class="input-group-text" for="min">Min:</label>
      <input type="number" id="min" class="form-control" value="1"
      placeholder="Masukkan nilai minimum">
    </div>
    <!-- Input max dan tombol -->
    <div class="result-box mt-3">
      <p class="mb-1">Hasil Penjumlahan:</p>
      <span id="result" class="display-6 text-primary">0</span>
      <p id="process" class="text-muted small mt-2"></p>
    </div>
  </div>
</div>

```

```
</div>
```

- **JavaScript :**

```
function hitungGanjil(min, max) {
    let total = 0;
    let proses = "";

    // Validasi input
    if (min > max) {
        alert("Min tidak boleh lebih besar dari Max!");
        return {
            sum: 0,
            expression: ""
        };
    }

    // Mulai dari bilangan ganjil pertama
    let mulai = (min % 2 === 1) ? min : min + 1;

    // Hitung jumlah bilangan ganjil
    for (let i = mulai; i <= max; i += 2) {
        total += i;
        if (proses !== "") proses += " + ";
        proses += i;
    }

    return {
        sum: total,
        expression: proses
    };
}

$("#calculate-btn").click(function() {
    const min = parseInt($("#min").val());
    const max = parseInt($("#max").val());

    if (isNaN(min) || isNaN(max)) {
        alert("Harap masukkan angka yang valid!");
        return;
    }

    const hasil = hitungGanjil(min, max);
    $("#result").text(hasil.sum);
    $("#process").text(hasil.expression + (hasil.expression ? " = " : " +
    hasil.sum : ""));
});
```

4. Manipulasi CSS dengan jQuery

- HTML :

```
<div class="card">
  <div class="card-header">
    <h2 class="h5 mb-0"><i class="bi bi-magic"></i> Manipulasi CSS
    dengan jQuery</h2>
  </div>
  <div class="card-body text-center">
    <div id="text-container" class="mb-4 p-3 bg-light rounded">
      <p class="mb-0">Ini adalah contoh teks yang akan diubah
      alignment-nya...</p>
    </div>
    <div id="color-box" class="mb-4">
      <span class="text-muted">Klik tombol untuk mengubah
      warna!</span>
    </div>
    <!-- Tombol-tombol -->
  </div>
</div>
```

- JavaScript

```
// Variabel untuk manipulasi CSS
let warnaAsli = "#e9ecef";
let warnaSekarang = true;
let warnaAlternatif = "#ffc107";
let alignSekarang = "left";

// Tombol untuk mengubah alignment teks
$("#align-btn").click(function() {
  const teks = $("#text-container p");

  if (alignSekarang === "left") {
    teks.css("text-align", "center");
    alignSekarang = "center";
    $(this).html('<i class="bi bi-text-center"></i> Alignment: Tengah');
  } else if (alignSekarang === "center") {
    teks.css("text-align", "right");
    alignSekarang = "right";
    $(this).html('<i class="bi bi-text-right"></i> Alignment: Kanan');
  } else {
    teks.css("text-align", "left");
    alignSekarang = "left";
    $(this).html('<i class="bi bi-text-left"></i> Alignment: Kiri');
  }
});

// Tombol untuk mengubah warna kotak
$("#color-btn").click(function() {
```

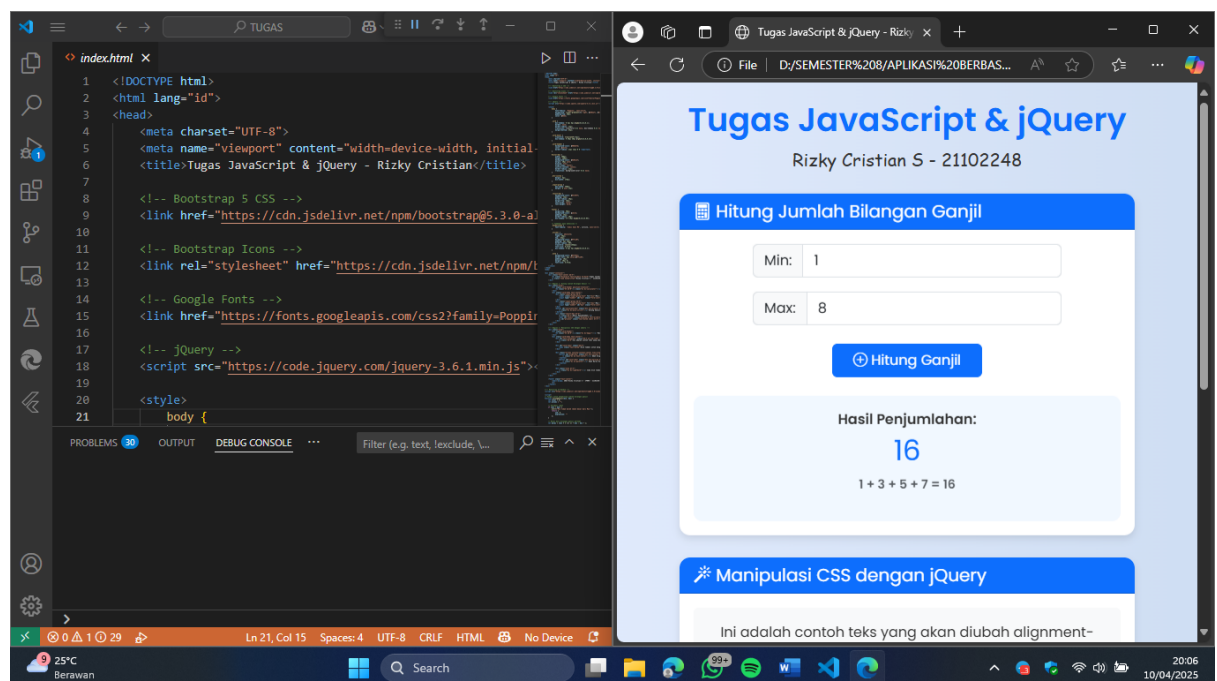
```

    if (warnaSekarang) {
        $("#color-box").css("background-color", warnaAlternatif);
        $("#color-box span").text("Warna kuning!").css("font-weight",
"bold");
        $(this).html('<i class="bi bi-palette"></i> Kembalikan Warna');
    } else {
        $("#color-box").css("background-color", warnaAsli);
        $("#color-box span").text("Klik tombol untuk mengubah
warna!").css("font-weight", "normal");
        $(this).html('<i class="bi bi-palette"></i> Ubah Warna Kotak');
    }
    warnaSekarang = !warnaSekarang;
});

// Efek tambahan saat halaman dimuat
$(document).ready(function() {
    $("#text-container").hide().fadeIn(1000);
    $("#color-box").hide().slideDown(800);
});

```

5. Source Code dan Hasil Outputnya



The image shows a side-by-side comparison of the source code and its rendered output. On the left, the VS Code editor displays the HTML and JavaScript code for the application. The HTML includes Bootstrap 5 CSS, Bootstrap Icons, Google Fonts (Poppins), and jQuery. The JavaScript code implements a color toggle functionality and a fade/slide effect when the page loads. On the right, the browser window shows the rendered application. The title is "Tugas JavaScript & jQuery" by Rizky Cristian S - 21102248. The main section is "Hitung Jumlah Bilangan Ganjil" (Calculate the Sum of Odd Numbers), which includes input fields for "Min" (1) and "Max" (8), a "Hitung Ganjil" button, and a result display showing "Hasil Penjumlahan: 16" with the calculation "1 + 3 + 5 + 7 = 16". Below this is another section titled "Manipulasi CSS dengan jQuery" (Manipulating CSS with jQuery), which contains a text element that will be changed.