

## MINGGU 4 (PEMROGRAMAN BERBASIS WEB)

### Cara Membuat Form Pada HTML 5

Form sebagai media element HTML untuk mendapatkan informasi dari pengunjung website, sebagai interface pada halaman website dimana pengunjung dapat melakukan interaksi untuk mengisi konten. Pada tutorial ini baru sebatas cara pembuatan form saja, belum sampai proses pengolahan datanya, pengolahan data lebih lanjut dapat menggunakan Bahasa pemrograman server.

#### Tahap pembuatan Form

- Form di HTML dapat kita buat dengan tag **<form>**  
Tag ini memiliki beberapa atribut yang harus diberikan, seperti:
  - **action** untuk menentukan aksi yang akan dilakukan saat data dikirim;
  - **method** metode pengiriman data.

Contoh :

```
<form action="proses.php" method="GET">
<!-- form field di sini -->
</form>
```

Untuk atribut **action**, kita dapat mengisinya dengan alamat URL dari *endpoint* yang akan memproses form.

Secara sederhana,—pada contoh di atas— kita akan menyuruh file **proses.php** untuk memproses data form.

Kode HTML di atas, belum menghasilkan apa-apa, karena belum membuat field-nya. Field disini dapat diartikan ruas yang dapat diisi dengan data, atau bisa disebut sebagai elemen form.

Contoh Field :

```
<input type="text" name="info" />
```

Field memiliki beberapa atribut yang harus diberikan:

1. **type** merupakan type dari field.
2. **name** merupakan nama dari field yang akan menjadi kunci dan variabel di dalam program.

(lebih detail bisa pelajari di file “**Referensi-Web-Form-HTML5.pdf**”

## ○ PRAKTIKUM FORM

### • form1-login.html

Pada form login, terdapat beberapa field dan elemen:

1. Field untuk input username atau email;
2. Field untuk input password;
3. Checkbok untuk remember me;
4. Tombol untuk login.

Berikut ini kodenya:

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>Form Login</title>
5 </head>
6 <body>
7   <form action="login.php" method="POST">
8     <fieldset>
9       <legend>Login</legend>
10      <p>
11        <label>Username:</label>
12        <input type="text" name="username" placeholder="username..." />
13      </p>
14      <p>
15        <label>Password:</label>
16        <input type="password" name="password" placeholder="password..." />
17      </p>
18      <p>
19        <label><input type="checkbox" name="remember" value="remember" /> Remember me</label>
20      </p>
21      <p>
22        <input type="submit" name="submit" value="Login" />
23      </p>
24    </fieldset>
25  </form>
26 </body>
27 </html>
```

Pada kode di atas, terdapat empat buah filed:

1. input username dengan tipe text;

2. input password dengan tipe password;
3. input remember dengan tipe checkbox;
4. input submit dengan tipe submit;

Ketiga field ini terdapat dalam tag `<fieldset>`.

tag `<fieldset>` ini akan membuat sebuah garis.

Di dalam tag `<fieldset>`, kita membuat tag `<legend>` untuk memberikan teks pada *fieldset*.

Lalu, perhatikan juga atribut yang digunakan pada setiap field.

- Atribut placeholder untuk menampilkan teks sementara (*placeholder*);
- Atribut value untuk memberikan nilai default pada field.

Setiap field kita bungkus dalam tag `<p>` agar terlihat rapi dan juga kita berikan sebuah label dengan tag `<label>`. Atau pembuatan form ini bisa ditata menggunakan `<table>`

- **form2-contact.html**

Selanjutnya, Latihan pembuatan form *contact*. Form ini berfungsi untuk menghubungi atau kontak admin. Pada contoh di bawah, terdapat `type="email"` untuk field email, agar field ini harus diisi dengan email saja. Jika diisi dengan isian selain format email, kemudian klik **Send**...maka akan muncul pesan peringatan.

Berikut kodenya:

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>Contact Us</title>
5 </head>
6 <body>
7   <form action="contact.php" method="POST">
8     <fieldset>
9       <legend>Contact</legend>
10      <p>
11        <label>Name:</label>
12        <input type="text" name="name" placeholder="your name..." />
13      </p>
14      <p>
15        <label>Subject:</label>
16        <input type="text" name="subject" placeholder="subject..." />
17      </p>
18      <p>
19        <label>Email:</label>
20        <input type="email" name="email" placeholder="your email..." />
21      </p>
22      <p>
23        <input type="submit" name="submit" value="Send" />
24      </p>
25    </fieldset>
26  </form>
27 </body>
28 </html>
```

- **form3-register.html**

Berikutnya membuat form registrasi.

Form ini berisi field untuk:

- Input nama lengkap;
- Input username;
- Input email;
- Input password;
- Input jenis kelamin;
- Input Agama;
- Input Biografi.
- dsb.

Kode :

```
1  <!DOCTYPE html>
2  <html>
3  <head>
4    <title>Registrasi</title>
5  </head>
6  <body>
7    <form action="contact.php" method="POST">
8      <fieldset>
9        <legend>Registrasi</legend>
10       <p>
11         <label>Nama:</label>
12         <input type="text" name="nama" placeholder="Nama lengkap..." />
13       </p>
14       <p>
15         <label>Username:</label>
16         <input type="text" name="username" placeholder="Username..." />
17       </p>
18       <p>
19         <label>Email:</label>
20         <input type="email" name="email" placeholder="Your email..." />
21       </p>
22       <p>
23         <label>Password:</label>
24         <input type="password" name="password" placeholder="Passowrd..." />
25       </p>
26       <p>
27         <label>Jenis kelamin:</label>
28         <label><input type="radio" name="jenis_kelamin" value="laki-laki" /> Laki-laki</label>
29         <label><input type="radio" name="jenis_kelamin" value="perempuan" /> Perempuan</label>
30       </p>
31       <p>
32         <label>Agama:</label>
33         <select name="agama">
34           <option value="islam">Islam</option>
35           <option value="kristen">Kristen</option>
36           <option value="hindu">Hindu</option>
37           <option value="budha">Budha</option>
38         </select>
39       </p>
40       <p>
41         <label>Biografi:</label>
42         <textarea name="biografi"></textarea>
43       </p>
44       <p>
45         <input type="submit" name="submit" value="Daftar" />
46       </p>
47     </fieldset>
48   </form>
49 </body>
50 </html>
```

Apa saja field baru yang ada di form tersebut?

1. Field radio;
2. Field <select><option>;
3. Field <tearea>.

Apa perbedaan radio dengan checkbox?

Jika ingin agar pengunjung memilih salah satu, maka kita gunakan radio.

Tapi kalau menginginkan pengunjung memilih lebih dari satu, maka kita gunakan checkbox.

kemudian untuk `<select></option>`, sifatnya sama seperti radio. Cuma bentuk tampilannya berbeda.

Untuk menginputkan teks yang panjang, bisa gunakan tag `<textarea>`.

## FORM LANJUTAN

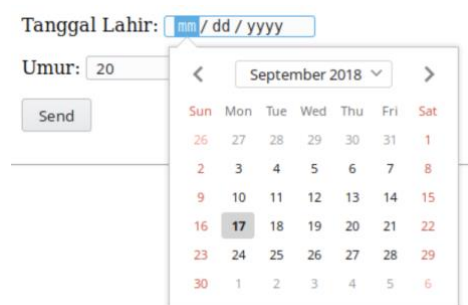
Field-field di atas merupakan jenis field yang sering digunakan dalam pembuatan form.

Masih banyak jenis field seperti meter, color, url, number, date , datetime dsb.

Tambahkan kode dibawah ini untuk melengkapi form registras diatas :

```
<p>
  <label>Alamat Web:</label>
  <input type="url" name="name" placeholder="Masukan URL Web..." />
</p>
<p>
  <label>Tanggal Lahir:</label>
  <input type="date" name="tanggal" />
</p>
<p>
  <label>Umur:</label>
  <input type="number" min="10" max="90" name="umur" />
</p>
<p>
  <input type="submit" name="submit" value="Send" />
</p>
```

Pada type date Apabila di browser tidak tampil blok kalender, coba gunakan browser versi terbaru. Seperti tampilan dibawah ini:



The screenshot shows a web form with the following elements:

- A label "Tanggal Lahir:" followed by a date input field showing "mm / dd / yyyy".
- A label "Umur:" followed by a number input field showing "20".
- A "Send" button.
- A date picker calendar is open, showing the month of "September 2018". The calendar has a grid with days of the week (Sun, Mon, Tue, Wed, Thu, Fri, Sat) and dates. The date "17" is highlighted.

## ○ SELF PACED LEARNING

Eksplore Element dan Atribut Form pada w3school (offline / online) atau materi terlampir, dan bisa dari media pembelajaran yang lain.

### **Repository Minggu 4**

Untuk Latihan pada minggu ke-4 sebagai repositori assignment buatlah formulir untuk kebutuhan dibawah ini:

#### **FORMULIR PPDB JALUR ZONASI TAHUN 2020**

Nomor	INFO PENDAFTARAN
1	NISN :
2	Asal sekolah :
3	Tahun Lulus : <i>(lampirkan foto copy Ijazah)</i>
<b>DATA CALON PESERTA</b>	
6	Nama Lengkap :
7	NIK :
8	Tempat/Tanggal Lahir : Umur : Tahun,
Foto Copy Akte Kelahiran Yang Telah Dilegalisir <i>(Di Lampirkan)</i>	
9	Jenis Kelamin :
10	Alamat :
11	Desa/Kel. :
12	Kecamatan :
13	Kabupaten :
14	Provinsi :
15	Email Aktif :
<b>DATA ORANG TUA</b> <i>(lampirkan KK)</i>	
16	Nomor Kartu Keluarga :
17	Nama Ayah Kandung :
18	Agama :
19	Pekerjaan :
20	Nama Ibu Kandung :
21	Agama :
22	Pekerjaan :
23	Alamat Orang Tua :
24	Desa/Kel. :
25	Kecamatan :
26	Kabupaten :
27	Provinsi :

Simpan dalam file lat-form-ppdb.html

Push hasil latihan ke Github (repository webdas) dan kirim urlnya melalui kulino pada blok (Repository Minggu 4).

Repository : **pem-web2021**

Branches : mengikuti branch pada praktikum dan latihan sebelumnya

Folder : minggu4

## 5. HTML5 – Web Forms 2.0

Web Forms 2.0 is an extension to the forms features found in HTML4. Form elements and attributes in HTML5 provide a greater degree of semantic mark-up than HTML4 and free us from a great deal of tedious scripting and styling that was required in HTML4.

### The `<input>` element in HTML4

HTML4 input elements use the **type** attribute to specify the data type. HTML4 provides following types –

Type	Description
text	A free-form text field, nominally free of line breaks.
password	A free-form text field for sensitive information, nominally free of line breaks.
checkbox	A set of zero or more values from a predefined list.
radio	An enumerated value.
submit	A free form of button initiates form submission.
file	An arbitrary file with a MIME type and optionally a file name.
image	A coordinate, relative to a particular image's size, with the extra semantic that it must be the last value selected and initiates form submission.
hidden	An arbitrary string that is not normally displayed to the user.
select	An enumerated value, much like the radio type.
textarea	A free-form text field, nominally with no line break restrictions.
button	A free form of button which can initiates any event related to button.

Following is the simple example of using labels, radio buttons, and submit buttons –

```
...  
<form action="http://example.com/cgiscript.pl" method="post">  
  
  <p>  
  
    <label for="firstname">first name: </label>  
    <input type="text" id="firstname"><br />  
  
    <label for="lastname">last name: </label>
```



```

<input type="text" id="lastname"><br />

<label for="email">email: </label>
<input type="text" id="email"><br>

<input type="radio" name="sex" value="male"> Male<br>
<input type="radio" name="sex" value="female"> Female<br>
<input type="submit" value="send"> <input type="reset">

</p>
</form>

...

```

## The <input> element in HTML5

Apart from the above-mentioned attributes, HTML5 input elements introduced several new values for the **type** attribute. These are listed below.

**NOTE:** Try all the following example using latest version of **Opera** browser.

Type	Description
<b>datetime</b>	A date and time (year, month, day, hour, minute, second, fractions of a second) encoded according to ISO 8601 with the time zone set to UTC.
<b>datetime-local</b>	A date and time (year, month, day, hour, minute, second, fractions of a second) encoded according to ISO 8601, with no time zone information.
<b>date</b>	A date (year, month, day) encoded according to ISO 8601.
<b>month</b>	A date consisting of a year and a month encoded according to ISO 8601.
<b>week</b>	A date consisting of a year and a week number encoded according to ISO 8601.
<b>time</b>	A time (hour, minute, seconds, fractional seconds) encoded according to ISO 8601.
<b>number</b>	It accepts only numerical value. The step attribute specifies the precision, defaulting to 1.
<b>range</b>	The range type is used for input fields that should contain a value from a range of numbers.
<b>email</b>	It accepts only email value. This type is used for input fields that should contain an e-mail address. If you try to submit a simple text, it forces to enter only email address in email@example.com format.
<b>url</b>	It accepts only URL value. This type is used for input fields that should contain a URL address. If you try to submit a simple text, it forces to enter

	only URL address either in http://www.example.com format or in http://example.com format.
--	---

## HTML5 - datetime

A date and time (year, month, day, hour, minute, second, fractions of a second) encoded according to ISO 8601 with the time zone set to UTC.

### Example

```
<!DOCTYPE HTML>
<html>
  <body>

    <form action = "/cgi-bin/html5.cgi" method = "get">
      Date and Time : <input type = "datetime" name = "newinput" />
      <input type = "submit" value = "submit" />
    </form>

  </body>
</html>
```

### Output

Date and Time :

## HTML5 - datetime local

---

A date and time (year, month, day, hour, minute, second, fractions of a second) encoded according to ISO 8601, with no time zone information.

### Example

```
<!DOCTYPE HTML>
<html>
  <body>

    <form action = "/cgi-bin/html5.cgi" method = "get">
      Local Date and Time : <input type = "datetime-local" name = "newinput" />
      <input type = "submit" value = "submit" />
    </form>

  </body>
</html>
```

### Output

Local Date and Time :

## HTML5 – date

---

A date (year, month, day) encoded according to ISO 8601.

### Example

```
<!DOCTYPE HTML>
<html>
  <body>

    <form action = "/cgi-bin/html5.cgi" method = "get">
```

```

        Date : <input type = "date" name = "newinput" />
        <input type = "submit" value = "submit" />
    </form>
</body>
</html>

```

## Output

Date :

## HTML5 – month

---

A date consisting of a year and a month encoded according to ISO 8601.

### Example

```

<!DOCTYPE HTML>
<html>
    <body>

        <form action = "/cgi-bin/html5.cgi" method = "get">
            Month : <input type = "month" name = "newinput" />
            <input type = "submit" value = "submit" />
        </form>

    </body>
</html>

```

## Output

Month :

## HTML5 - week

A date consisting of a year and a week number encoded according to ISO 8601.

## Example

```
<!DOCTYPE HTML>
<html>
  <body>

    <form action = "/cgi-bin/html5.cgi" method = "get">
      Week : <input type = "week" name = "newinput" />
      <input type = "submit" value = "submit" />
    </form>

  </body>
</html>
```

## Output

Week :

## HTML5 – time

---

A time (hour, minute, seconds, fractional seconds) encoded according to ISO 8601.

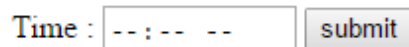
### Example

```
<!DOCTYPE HTML>
<html>
  <body>

    <form action = "/cgi-bin/html5.cgi" method = "get">
      Time : <input type = "time" name = "newinput" />
      <input type = "submit" value = "submit" />
    </form>

  </body>
</html>
```

### Output



## HTML5 – number

---

It accepts only numerical value. The step attribute specifies the precision, defaulting to 1.

### Example

```
<!DOCTYPE HTML>
<html>
  <body>

    <form action = "/cgi-bin/html5.cgi" method = "get">
```

```

        Select Number : <input type = "number" min = "0" max = "10" step "1"
                        value = "5" name = "newinput" />
        <input type = "submit" value = "submit" />
    </form>

</body>
</html>

```

## Output

Select Number :

## HTML5 – range

The range type is used for input fields that should contain a value from a range of numbers.

### Example

```

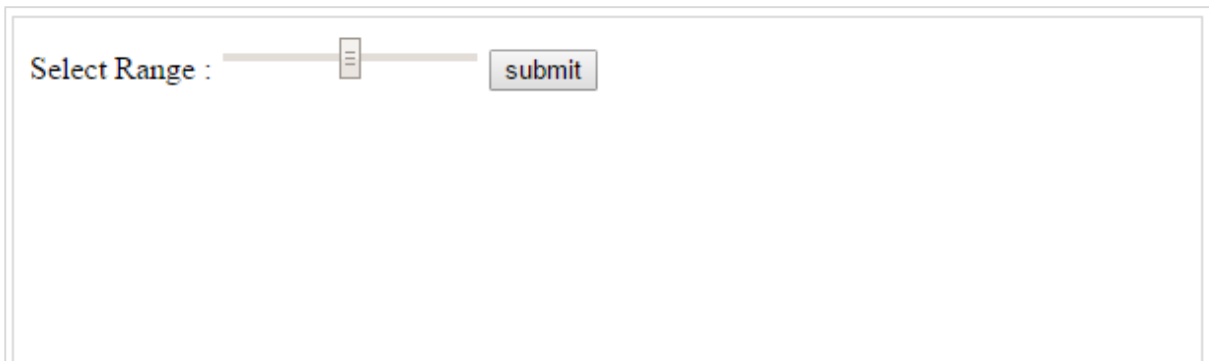
<!DOCTYPE HTML>
<html>
    <body>

        <form action = "/cgi-bin/html5.cgi" method = "get">
            Select Range : <input type = "range" min = "0" max = "10" step "1"
                            value = "5" name = "newinput" />
            <input type = "submit" value = "submit" />
        </form>

    </body>
</html>

```

## Output



## HTML5 - email

It accepts only email value. This type is used for input fields that should contain an e-mail address. If you try to submit a simple text, it forces to enter only email address in email@example.com format.

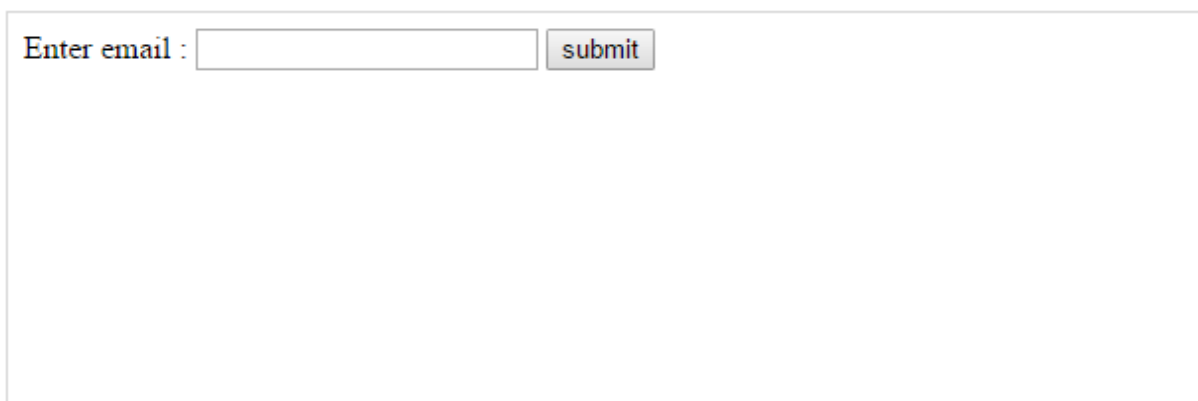
## Example

```
<!DOCTYPE HTML>
<html>
  <body>

    <form action = "/cgi-bin/html5.cgi" method = "get">
      Enter email : <input type = "email" name = "newinput" />
      <input type = "submit" value = "submit" />
    </form>

  </body>
</html>
```

## Output





## HTML5 – URL

It accepts only URL value. This type is used for input fields that should contain a URL address. If you try to submit a simple text, it forces to enter only URL address either in **http://www.example.com** format or in **http://example.com** format.

### Example

```
<!DOCTYPE HTML>
<html>
  <body>

    <form action = "/cgi-bin/html5.cgi" method = "get">
      Enter URL : <input type = "url" name = "newinput" />
      <input type = "submit" value = "submit" />
    </form>

  </body>
</html>
```

### Output

Enter URL :

## The <output> element

HTML5 introduced a new element <output> which is used to represent the result of different types of output, such as output written by a script.

You can use the **for** attribute to specify a relationship between the output element and other elements in the document that affected the calculation (for example, as inputs or parameters). The value of the for attribute is a space-separated list of IDs of other elements.

```
<!DOCTYPE HTML>
```

```
<html>

  <script type="text/javascript">
    function showResult()
    {
      x = document.forms["myform"]["newinput"].value;
      document.forms["myform"]["result"].value=x;
    }
  </script>

  <body>

    <form action="/cgi-bin/html5.cgi" method="get" name="myform">
      Enter a value : <input type="text" name="newinput" />
      <input type="button" value="Result" onclick="showResult();" />
      <output name="result"/>
    </form>

  </body>

</html>
```

It will produce the following result –

Enter a value :

## The placeholder attribute

HTML5 introduced a new attribute called **placeholder**. This attribute on `<input>` and `<textarea>` elements provide a hint to the user of what can be entered in the field. The placeholder text must not contain carriage returns or line-feeds.

Here is the simple syntax for placeholder attribute –

```
<input type="text" name="search" placeholder="search the web"/>
```

This attribute is supported by latest versions of Mozilla, Safari and Chrome browsers only.

```
<!DOCTYPE HTML>
<html>

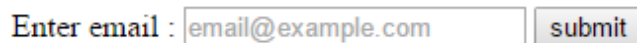
  <body>

    <form action="/cgi-bin/html5.cgi" method="get">
      Enter email : <input type="email" name="newinput"
placeholder="email@example.com"/>
      <input type="submit" value="submit" />
    </form>

  </body>

</html>
```

This will produce the following result –



## The autofocus attribute

This is a simple one-step pattern, easily programmed in JavaScript at the time of document load, automatically focus one particular form field.

HTML5 introduced a new attribute called **autofocus** which would be used as follows –

```
<input type="text" name="search" autofocus/>
```

This attribute is supported by latest versions of Mozilla, Safari and Chrome browsers only.

```

<!DOCTYPE HTML>

<html>

  <body>

    <form action="/cgi-bin/html5.cgi" method="get">
      Enter email : <input type="text" name="newinput" autofocus/>
      <p>Try to submit using Submit button</p>
      <input type="submit" value="submit" />
    </form>

  </body>

</html>

```

## The required attribute

Now you do not need to have JavaScript for client-side validations like empty text box would never be submitted because HTML5 introduced a new attribute called **required** which would be used as follows and would insist to have a value –

```
<input type="text" name="search" required/>
```

This attribute is supported by latest versions of Mozilla, Safari and Chrome browsers only.

```

<!DOCTYPE HTML>
<html>
  <body>
    <form action="/cgi-bin/html5.cgi" method="get">
      Enter email : <input type="text" name="newinput" required/>
      <p>Try to submit using Submit button</p>
      <input type="submit" value="submit" />
    </form>
  </body>
</html>

```

It will produce the following result –

Enter email :

Try to submit using Submit button

submit

## FORMULIR PPDB JALUR ZONASI TAHUN 2021

Nomor	INFO PENDAFTARAN	
1	NISN	:
2	Asal sekolah	:
3	Tahun Lulus	: <i>(lampirkan foto copy Ijazah)</i>
<b>DATA CALON PESERTA</b>		
6	Nama Lengkap	:
7	NIK	:
8	Tempat/Tanggal Lahir	: Umur : Tahun, Bulan
Foto Copy Akte Kelahiran Yang Telah Dilegalisir <i>(Di Lampirkan)</i>		
9	Jenis Kelamin	:
10	Alamat	:
11	Desa/Kel.	:
12	Kecamatan	:
13	Kabupaten	:
14	Provinsi	:
15	Email Aktif	:
<b>DATA ORANG TUA</b> <i>(lampirkan KK)</i>		
16	Nomor Kartu Keluarga	:
17	Nama Ayah Kandung	:
18	Agama	:
19	Pekerjaan	:
20	Nama Ibu Kandung	:
21	Agama	:
22	Pekerjaan	:
23	Alamat Orang Tua	:
24	Desa/Kel.	:
25	Kecamatan	:
26	Kabupaten	:
27	Provinsi	: