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Matkul: SIG Berbasis Web

Bahasa Internet

HTML, CSS dan JS

Dany Laksono | Dept. Teknik Geodesi UGM



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Bahasa Internet: HTML, CSS dan JS

- Bahasa dan Protokol komunikasi inter-net
- Struktur Halaman Web
- HTML – HyperText Markup Language
- CSS – Cascading StyleSheet

LOCALLY ROOTED, GLOBALLY RESPECTED

UGM.AC.ID



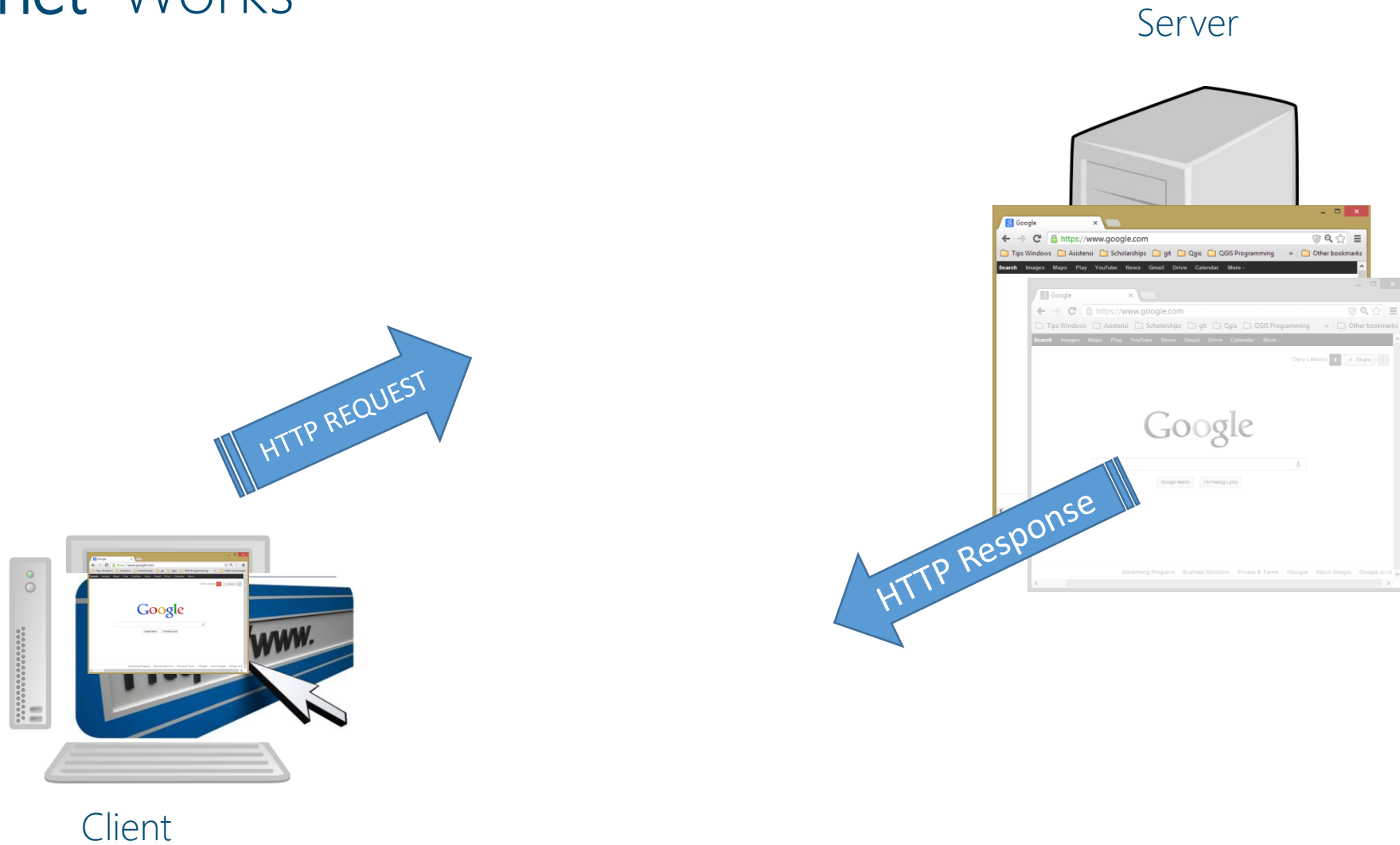
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Bahasa dan Protokol Internet

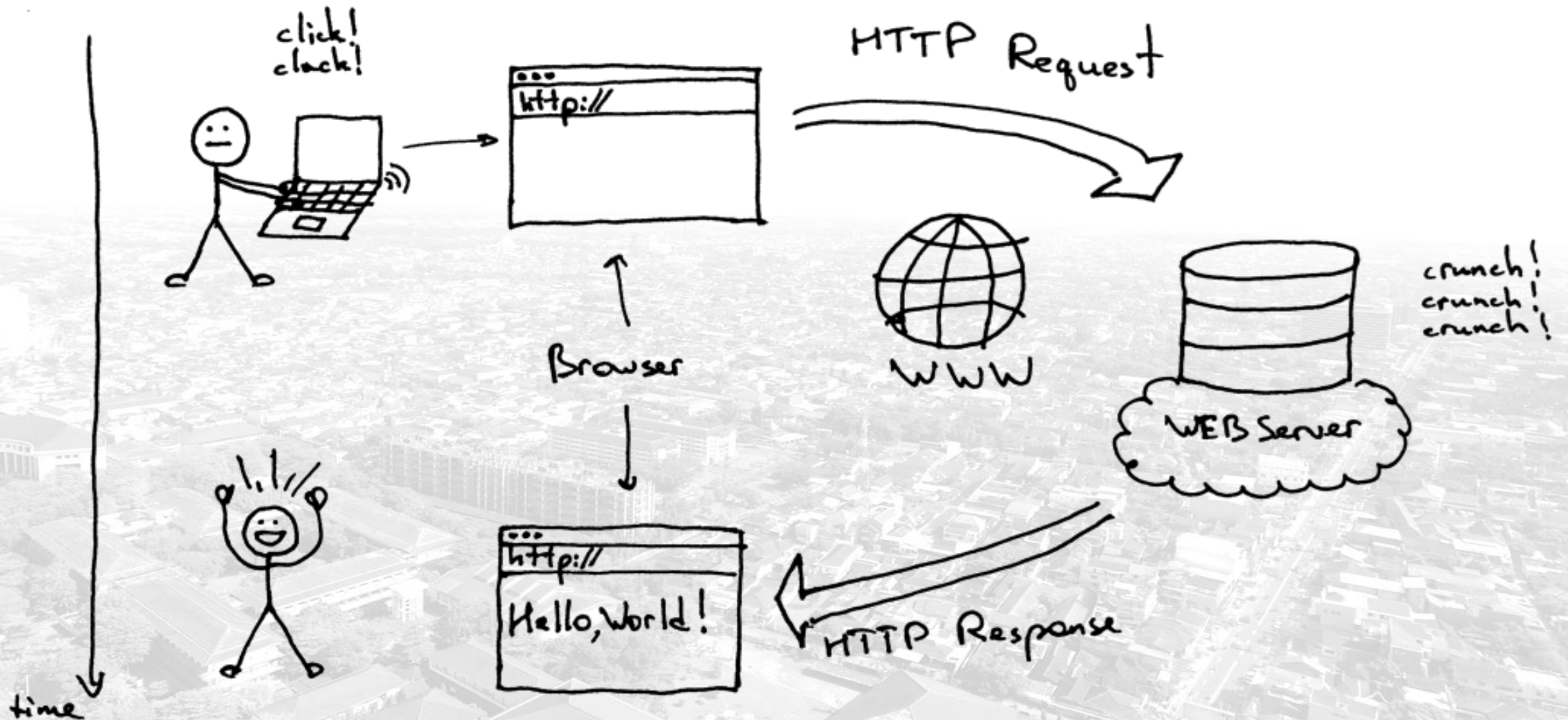
Dasar Internet dan WebGIS



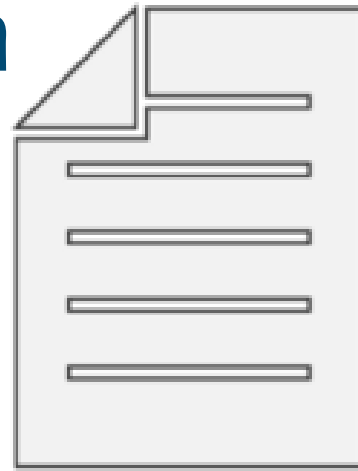
How 'Internet' Works



Bagaimana Client dan Server Berkomunikasi?



Komponen Halaman Web



Page

HTML



Structure

CSS



Styling

JS

Functionality

Struktur Halaman Web: HTML, CSS and JS

HTML

```
<html>  
<head>...  
<body>  
<h1>  
<h2>  
<p>...</p>  
<ol><li><li>
```

Content

- Headings
- Paragraphs
- Lists
- Images
- Links

`<div id="kucing">`

*HTML is the **Object***



Struktur Halaman Web: HTML, CSS and JS

CSS

```
<style>
Body {
  Color:...
ul#mylist {
  font-family
</style>
```

Presentation

Colors
Fonts
Positioning

```
<style>
  #kucing {
    warnaBulu: hitam;
    panjangEkor: 4cm}
</style>
```

*CSS define its **Properties***



Struktur Halaman Web: HTML, CSS and JS

JavaScript

```
<script type=
"text/javascript">
```

Behavior

AJAX data manipulation
Error checking
pop-up calendars
special effects

Kucing.bobo("no");
(membangunkan kucing yg bobo)

Kucing.tambahEkor("200cm");
(panjang ekor kucing ditambah 2 meter)

*JS define its **Action or Method***



Ingredients for the Web

Clients
(Web browsers)



Document

- CSS
- JavaScript

GET
POST

HTTP

URL: `http://server.com/document1.html`



Web Server



Document



UGM student platform wins competition

A team of Indonesian Geodesy students from Gadjah Mada University (UGM) in Yogyakarta has won first place at the International Invention & Innovative Competition (InIIC), an event initiated by Malaysia-based event ...

[BACA SELINGKAPNYA](#)

a.dropdown-toggle 166.48 × 100

Color #FFFFFF

Font 12px Montserrat, Helvetica, Arial, sans-serif

Padding 40px 20px

ACCESSIBILITY

Name KEMAHASISWAAN

Role link

Keyboard-focusable

```

<!DOCTYPE html>
<html lang="id-ID" class="wf-opensans-n4-active wf-montserrat-n7-active wf-montserrat-n4-active wf-opensans-i4-active wf-opensans-n7-active wf-opensans-i7-active wf-lora-n4-active wf-lora-n7-active wf-lora-i4-active wf-active">
  <head>...</head>
  <body class="home page-template page-template-page-templates page-template-blank-page page-template-page-templatesblank-page-php page page-id-4"> == $0
    <header id="header" class="header-compact">
      <nav class="navbar navbar-default topbar">...</nav>
    ... body
  
```

Elements Console Sources Network Performance Memory Application Security Lighthouse

1 1

Styles Computed Event Listeners DOM Breakpoints Properties Accessibility

Filter :hov .cls +

```

element.style {
}
body {
  font-family: "Open Sans", Helvetica, Arial, sans-serif;
  font-size: 14px;
  line-height: 1.71429;
  color: #222;
  background-color: #fff;
}

```

style.css?ver=1.0.0:1

Bahasa Markup

```
<?xml version="1.0" encoding="UTF-8"?>  
<!DOCTYPE recipe PUBLIC "-//Happy-Monkey//DTD RecipeBook//EN"  
"http://www.happy-monkey.net/recipebook/recipebook.dtd">
```

```
<recipe>
```

```
  <title>Peanut-butter On A Spoon</title>
```

```
  <ingredientlist>
```

```
    <ingredient>Peanut-butter</ingredient>
```

```
  </ingredientlist>
```

```
  <preparation>
```

```
    Stick a spoon in a jar of peanut-butter,  
    scoop and pull out a big glob of peanut-butter.
```

```
  </preparation>
```

```
</recipe>
```

‘*Marking Up*’ dokumen:
menambahkan catatan
anotasi atau keterangan
pada dokumen

Bahasa Markup: Bahasa
yang dengan sendirinya
menjelaskan elemen-
elemen di dalamnya

Ciri Bahasa Markup:
menggunakan *Tag* untuk
menjelaskan elemen

Contoh Bahasa Markup: XML

```
1 <?xml version="1.0" encode="utf-8" ?>
2 <anggota>
3   <petani id="1" jabatan="ketua">
4     <nama>Petani kode</nama>
5   </petani>
6   <petani id="2" jabatan="wakil">
7     <nama>Peternak kode</nama>
8   </petani>
9 </anggota>
```

bagian deklarasi

atribut

elemen

tag pembuka

isi elemen

tag penutup

Contoh Bahasa Markup: HTML

☑ HTML = HyperText Markup Languages

☑ Tag HTML menandakan bagian Elemen

`<namatag>isi</ namatag >`

☑ Tag HTML biasanya berpasangan, seperti: `<p>` dan `</p>`

☑ Tag pertama pada pasangan adalah **tag awal/pembuka**, tag kedua adalah **tag akhir/penutup**

☑ Tag akhir ditulis seperti tag awal, tetapi dengan **garis miring** sebelum nama tag

Struktur Dokumen HTML

```
<!DOCTYPE html>
<html>
  <head>
    <title>Page Title</title>
  </head>
  <body>
    <h1>This is a Heading</h1>
    <p>This is a paragraph.</p>
  </body>
</html>
```

Pertanyaan:

*Mana yang disebut
Element Markup?*

*Mana yang disebut
Tag?*

*Mana bagian
Deklarasi?*

Struktur Dokumenten HTML

```
<html>
```

```
<head>
```

```
<title>Page title</title>
```

```
</head>
```

```
<body>
```

```
<h1>This is a heading</h1>
```

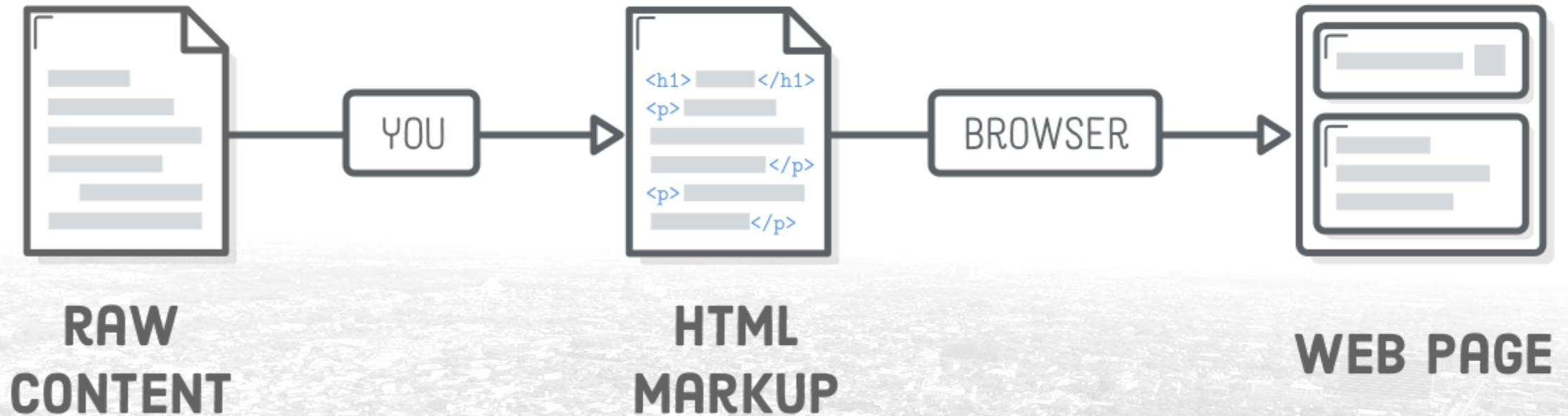
```
<p>This is a paragraph.</p>
```

```
<p>This is another paragraph.</p>
```

```
</body>
```

```
</html>
```

Why HTML?



*HTML digunakan untuk menampilkan dokumen di web melalui **Browser***

Konten text dan gambar dapat dikirim dan ditampilkan pada berbagai media: Komputer, HP, etc. yang memiliki akses internet

Tag-tag HTML

HTML Headings

```
<h1>Heading 1</h1>
```

```
<h2>Heading 2</h2>
```

```
<h3>Heading 3</h3>
```

```
<h4>Heading 4</h4>
```

```
<h5>Heading 5</h5>
```

```
<h6>Heading 6</h6>
```

HTML Paragraph

```
<p>This is a paragraph.</p>
```

```
<p>This is another paragraph.</p>
```

Tag-tag HTML

HTML Links

```
<a href="http://www.w3schools.com">  
This is a link  
</a>
```

HTML Images

```
  
</img>
```

HTML List

```
<ul>  
  <li>Coffee</li>  
  <li>Tea</li>  
  <li>Milk</li>  
</ul>
```

Tag-tag HTML

```
<table style="width:100%">
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
</table>
```



HTML Tables

Number	First Name	Last Name	Points
1	Eve	Jackson	94
2	John	Doe	80
3	Adam	Johnson	67
4	Jill	Smith	50

Tag-tag HTML

HTML Forms

```
<form>  
First name:<br>  
<input type="text" name="firstname">  
<br>  
Last name:<br>  
<input type="text" name="lastname">  
</form>
```



First name:

Last name:



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HTML dan CSS

Dasar Internet dan WebGIS

Cascading Stylesheet (CSS)

CSS is the Property of HTML

HTML

```
<p class='biru'> Ini tulisan warna biru </p>
```

CSS

```
.biru {  
  color:blue  
}
```



Ini tulisan warna biru

Cascading Stylesheet (CSS)

Bagaimana CSS dipanggil dari HTML?

	How?	Examples
1	External Link	<code><link rel="stylesheet" href="style.css" /></code>
2	Embed in HTML	<code><style> #kucing {color:purple} </style></code>
3	Inline Style	<code><p style="color:red"> paragraf merah </p></code>
4	Import in CSS	<code>@import "styles.css";</code>

Cascading Stylesheet (CSS)

CSS Selector: Elemen HTML mana yang ditarget?

Element selector

```
p {  
  text-align: center;  
  color: red;  
}
```

ID selector

```
#para1 {  
  text-align: center;  
  color: red;  
}
```

Selective selector

```
p .center {  
  text-align: center;  
  color: red;  
}
```

Class selector

```
.center {  
  text-align: center;  
  color: red;  
}
```

Grouping selector

```
h1, h2, p {  
  text-align: center;  
  color: red;  
}
```

Cascading Stylesheet (CSS)

Bagaimana cara merubah warna huruf Tombol 1 menjadi *merah* tanpa merubah tombol 2?

```
<div class="peta">  
  <h1> Peta Desa Segoroyoso</h1>  
  <div class="menu-peta">  
    <button type="button">  
      Tombol 1  
    </button>  
  </div>  
  <button type="button">  
    Tombol 2  
  </button>  
</div>
```

Peta Desa Segoroyoso

Tombol 1

Tombol 2

```
.menu-peta button {  
  color: red;  
}
```

Game ON!

CSS Diner

Share

Select the plates

Help, I'm stuck!

```
1 |Type in a CSS selector
2 |{
3 |/* Styles would go here. */
4 |}
5 |
6 |/*
7 |Type a number to skip to a level.
8 |Ex → "5" for level 5
9 |*/
```

```
1 <div class="table">
2   <plate />
3   <plate />
4 </div>
5
6
7
8
9
```

Level 1 of 32 ✓

Type Selector

Select elements by their type

A

Selects all elements of type `A`. Type refers to the type of tag, so `<div>`, `<p>` and `` are all different element types.

Examples

`div` selects all `<div>` elements.

`p` selects all `<p>` elements.

<https://flukeout.github.io/>



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TERIMA KASIH

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