

Front-End Development



DOM Manipulation & Animation

# DOM

*DOM (Document Object Model)* is a platform & language neutral interface that will allow programs & scripts to dynamically access & update the content, structure & style of documents.

It means DOM is an API to work with HTML-like document. Manipulating DOM means using this API to change the document: adding, removing or moving elements.

```
<head>
  <script src="js/jquery-3.3.1.min.js"></script>
  <style>
    .myClass {
      color:yellow;
      background:blue;
    }
  </style>
</head>
<body>
  <div id="container">
    <button id="btn1">Tombol</button>
    <p class="para1">Ini paragraf 1</p>
    <p class="para2">Ini paragraf 2</p>
  </div>
  <script>
    $(document).ready(function(){
      // $('p.para1').css({color:'red', background:'yellow'});
      // $('p.para2').addClass('myClass');
      // $('p.para2').removeClass('myClass');
    });
  </script>
</body>
```



## DOM Manipulation

### *Add/Remove Class*

```
<head>
  <script src="js/jquery-3.3.1.min.js"></script>
  <style>
    .myClass {
      color:yellow;
      background:blue;
    }
  </style>
</head>
<body>
  <div id="container">
    <button id="btn1">Tombol</button>
    <p class="para1">Ini paragraf 1</p>
    <p class="para2">Ini paragraf 2</p>
  </div>
  <script>
    $(document).ready(function(){
      $('#btn1').click(function(){
        $('p.para1').toggleClass('myClass');
        $('p.para2').toggleClass('myClass');
      });
    });
  </script>
</body>
```

## DOM Manipulation

### *Toggle Class*

# DOM Manipulation

## *Set Content Value*

```
<body>
  <div id="myDiv"></div>
<script>
  $(document).ready(function(){
    // $('#myDiv').text('Halo semuanya!');
    // $('#myDiv').html('<h1>Halo!</h1>');
    // alert($('#myDiv').text());
  });
</script>
</body>
```

```
<body>
  <p class="para1">Ini paragraf 1</p>
  <p class="para2">Ini paragraf 2</p>
  <ul>
    <li>Ini list 1</li>
    <li>Ini list 2</li>
    <li>Ini list 3</li>
  </ul>
```

## DOM Manipulation

### *Append & Prepend*

```
<script>
  $(document).ready(function(){
    // $(' .para1' ).appendTo( ' .para2' );
    // $(' .para1' ).prependTo( ' .para2' );
    // $(' ul' ).append( '<li>Ini append list</li>' );
    // $(' ul' ).prepend( '<li>Ini prepend list</li>' );
    // $(' ul' ).before( '<h4>Berikut adalah list:</h4>' );
    // $(' ul' ).after( '<h4>Demikianlah list.</h4>' );
    // $(' ul' ).empty();
    // $(' ul' ).detach();
  });
</script>
</body>
```

```
<body>
  <p class="para1">Ini paragraf 1</p>
  <p class="para2">Ini paragraf 2</p>
  <ul>
    <li>Ini list 1</li>
    <li>Ini list 2</li>
    <li>Ini list 3</li>
  </ul>
<script>
  $(document).ready(function(){
    var x = $('.para1').text();
    $('ul').append('<li>' + x + '</li>');
  });
</script>
</body>
```

## DOM Manipulation

### *Append & Prepend*

# DOM Manipulation

## *Add Attribute*

```
<body>
  <a href="http://google.com">Klik!</a>
<script>
  $(document).ready(function(){
    // $('a').attr('target', '_blank');
    // alert($('a').attr('href'));
    // $('a').removeAttr('target');
  });
</script>
</body>
```



# DOM Manipulation

## *Wrap Elements*

```
<body>
  <p class="para1">Ini paragraf 1</p>
  <p class="para2">Ini paragraf 2</p>
<script>
  $(document).ready(function(){
    // $('p').wrap('<h1>');
    // $('p').wrapAll('<h1>');
  });
</script>
</body>
```

# DOM Manipulation

*Print Array On Console*

```
<body>
<script>
$(document).ready(function(){
    var myArr = [ 'Andi', 'Budi', 'Caca' ];
    $.each(myArr, function(i, val){
        console.log(val);
    });
});
</script>
</body>
```

# DOM Manipulation

*Print Array On Web Page*

```
<body>
  <ul id="users"></ul>
<script>
$(document).ready(function(){
  var myArr = [ 'Andi', 'Budi', 'Caca' ];
  $.each(myArr, function(i,x){
    $('#users').append('<li>' + x + '</li>');
  });
});
</script>
</body>
```

# DOM Manipulation

*Convert Lists to Array*

```
<body>
  <ul id="list">
    <li>Andi</li>
    <li>Budi</li>
    <li>Caca</li>
  </ul>
  <script>
$(document).ready(function(){
  var newArr = $('ul#list li').toArray();
  $.each(newArr, function(i, val){
    console.log(val.innerHTML);
  });
});
</script>
</body>
```

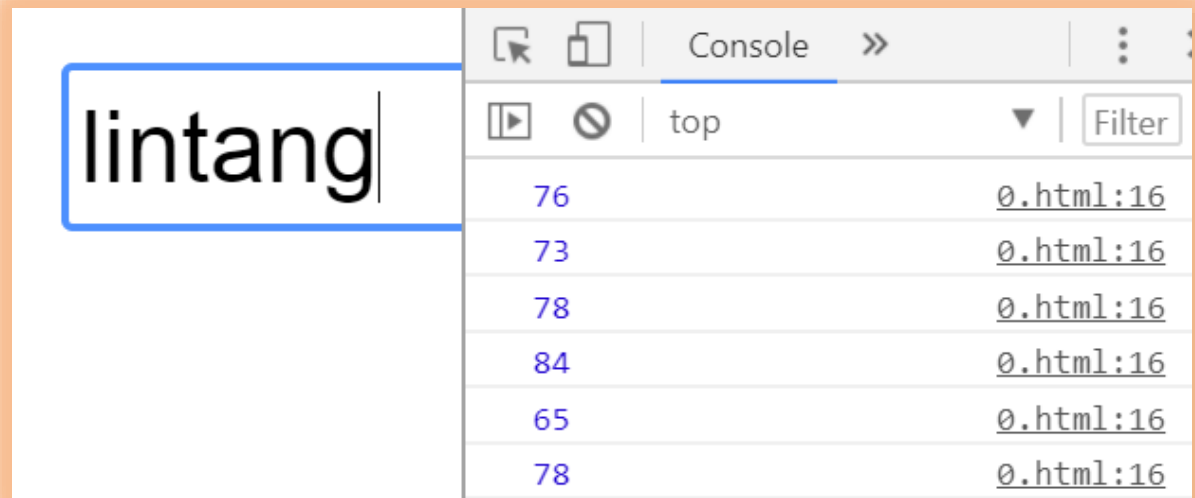
backspace	8	e	69	numpad 8	104	insert	45	v	86	f11	122
tab	9	f	70	numpad 9	105	delete	46	w	87	f12	123
enter	13	g	71	multiply	106	0	48	x	88	num lock	144
shift	16	h	72	add	107	1	49	y	89	scroll lock	145
ctrl	17	i	73	subtract	109	2	50	z	90	semi-colon	186
alt	18	j	74	decimal point	110	3	51	left window key	91	equal sign	187
pause/break	19	k	75	divide	111	4	52	right window key	92	comma	188
caps lock	20	l	76	f1	112	5	53	select key	93	dash	189
escape	27	m	77	f2	113	6	54	numpad 0	96	period	190
page up	33	n	78	f3	114	7	55	numpad 1	97	forward slash	191
page down	34	o	79	f4	115	8	56	numpad 2	98	grave accent	192
end	35	p	80	f5	116	9	57	numpad 3	99	open bracket	219
home	36	q	81	f6	117	a	65	numpad 4	100	back slash	220
left arrow	37	r	82	f7	118	b	66	numpad 5	101	close bracket	221
up arrow	38	s	83	f8	119	c	67	numpad 6	102	single quote	222
right arrow	39	t	84	f9	120	d	68	numpad 7	103		
down arrow	40	u	85	f10	121						

# JavaScript Key Codes

# DOM Manipulation

## JavaScript Key Codes

```
<body>
  <input type="text">
  <script>
$(document).ready(function(){
$( 'input' ).keyup(function(x){
    var code = x.which;
    console.log(code);
});
});
</script>
</body>
```



# DOM Manipulation

## *Input & Add List*

```
<body>
  <input type="text" id="newItem">
  <ol></ol>
<script>
$(document).ready(function(){
$( '#newItem' ).keyup(function(x){
var code = x.which;
if(code==13){
x.preventDefault();
$( 'ol' ).append( '<li>'+x.target.value+'</li>' );
};
});
});
</script>
</body>
```

paha ayam 2 kg

1. beras 1 kg
2. gula 2 kg
3. paha ayam 2 kg

# DOM Manipulation

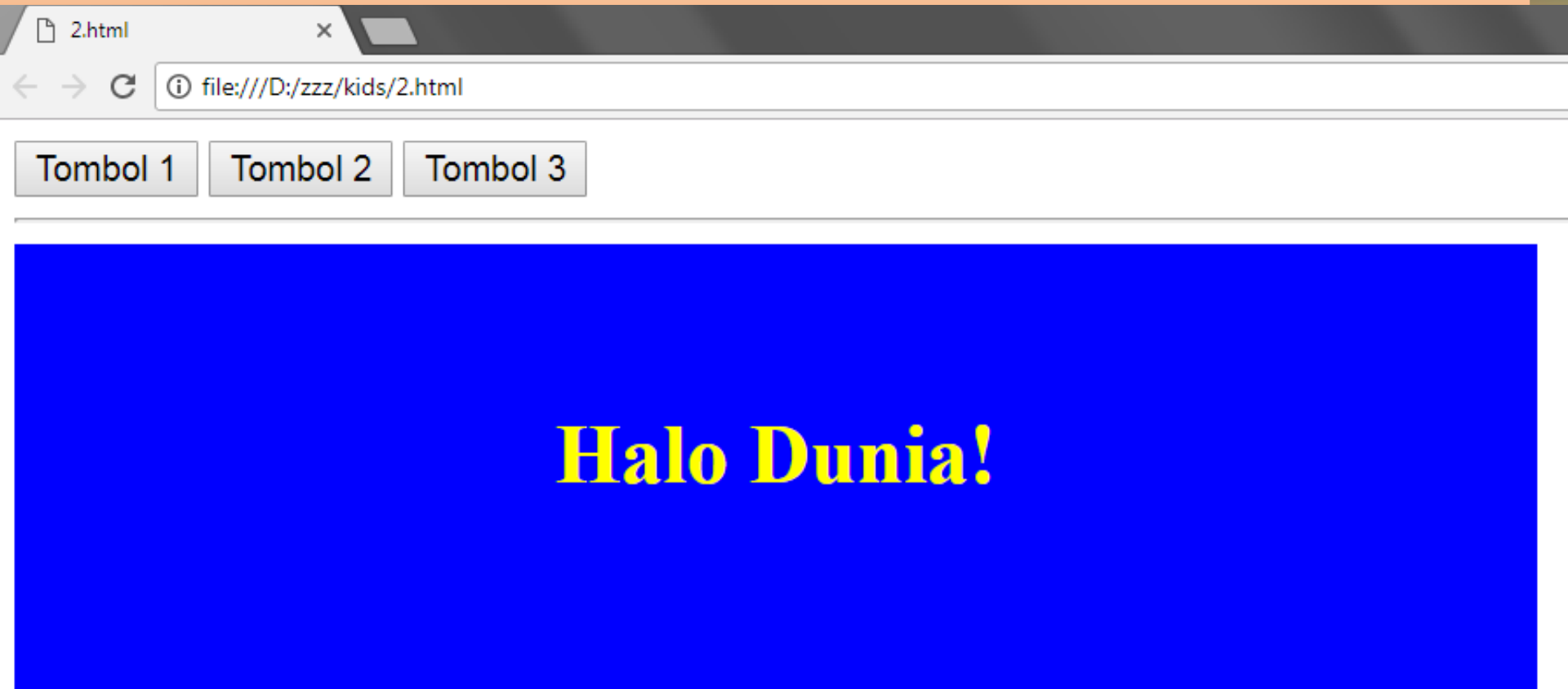
## *Input, Add List & Refresh*

```
<body>
  <input type="text" id="newItem">
  <ol></ol>
<script>
$(document).ready(function(){
$( '#newItem' ).keyup(function(x){
var code = x.which;
if(code==13){
x.preventDefault();
$( 'ol' ).append( '<li>'+x.target.value+'</li>' );
  $( ':text' ).val( '' );
  // x.target.value = '';
};});});
</script>
</body>
```





# Animation



# Template

## #part 1

```
<head>
<script src="js/jquery-3.3.1.min.js">
</script>
<style>
  #box{
    background:blue;
    color:yellow;
    width:500px;
    height:90px;
    padding:40px;
    text-align:center;
  }
</style>
</head>
```

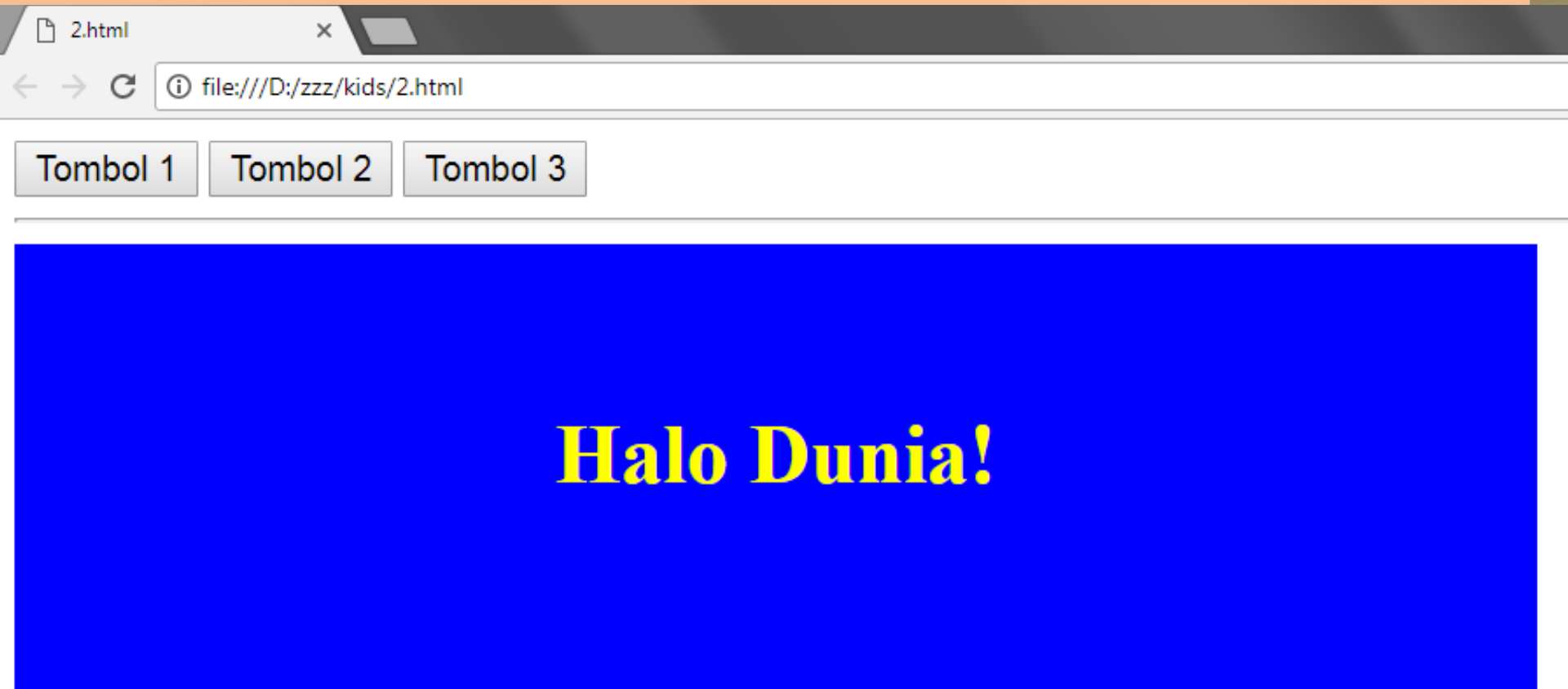
# Template

## #part 2

```
<body>
<div id="container">
  <button id="tombo11">Tombo1 1</button>
  <button id="tombo12">Tombo1 2</button>
  <button id="tombo13">Tombo1 3</button>
  <hr>
  <div id="box"><h1>HaLo Dunia!</h1></div>
</div>
<script>
  $(document).ready(function(){

  });
</script>
</body>
```

# Animation



# Animation

## *Fade Effects*

```
<script>
$(document).ready(function(){
    $( '#tombol1' ).click(function(){
        $( '#box' ).fadeOut();
    });
    $( '#tombol2' ).click(function(){
        $( '#box' ).fadeIn();
    });
    $( '#tombol3' ).click(function(){
        $( '#box' ).fadeToggle();
    });
});
</script>
```

# Animation

## *Fade Effects Param*

```
<script>
$(document).ready(function(){
    $( '#tombol1' ).click(function(){
        $( '#box' ).fadeOut( 'slow' );
    });
    $( '#tombol2' ).click(function(){
        $( '#box' ).fadeIn( 'fast' );
    });
    $( '#tombol3' ).click(function(){
        $( '#box' ).fadeToggle(2000);
    });
});
</script>
```

# Animation

## *Fade Effects Func*

```
<script>
$(document).ready(function(){
    $('#tombol1').click(function(){
        $('#box').fadeOut(2000, function(){
            $('#tombol1').text('Box Hilang!');
        });
    });
});
</script>
```

# Animation

## *FadeTo Effects*

```
<script>
$(document).ready(function(){
    $('#tombol12').click(function(){
        $('#box').fadeOut(1000, 0.4);
    });
    $('#tombol13').click(function(){
        $('#box').fadeOut(1000, 0.8, function(){
            alert('Halo semuanya!');
        });
    });
});
</script>
```

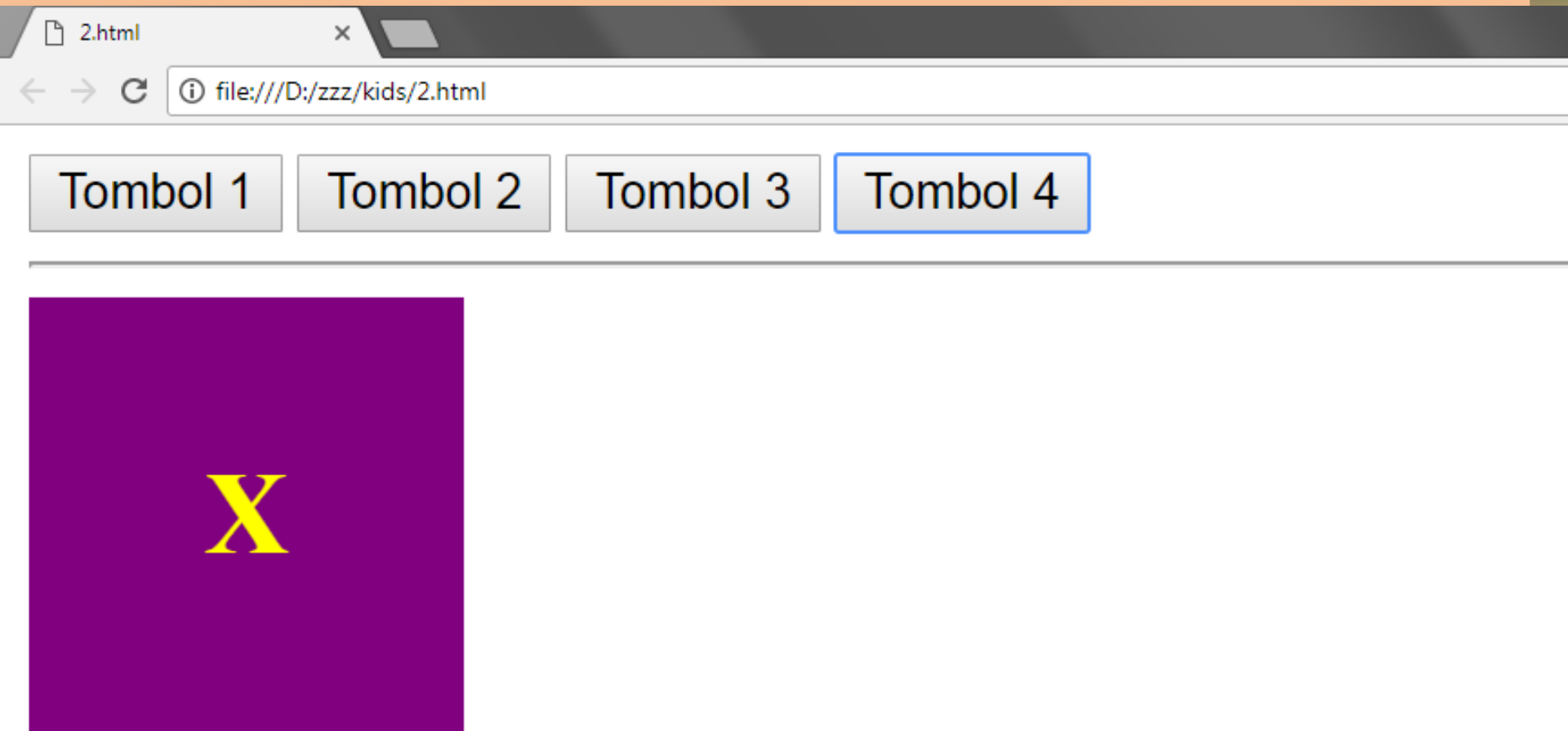


# Animation

## *Slide Effects*

```
<script>
$(document).ready(function(){
    $('#tombol1').click(function(){
        $('#box').slideUp(1000);
    });
    $('#tombol2').click(function(){
        $('#box').slideDown(1000);
    });
    $('#tombol3').click(function(){
        $('#box').slideToggle(1000);
    });
});
</script>
```

# Animation



# Template

## *#part 1*

```
<head>
<script src="js/jquery-3.2.1.min.js">
</script>
<style>
  #box{
    background:purple;
    color:yellow;
    width:80px;
    height:80px;
    position:relative;
    text-align:center;
    padding: 20px
  }
</style>
</head>
```

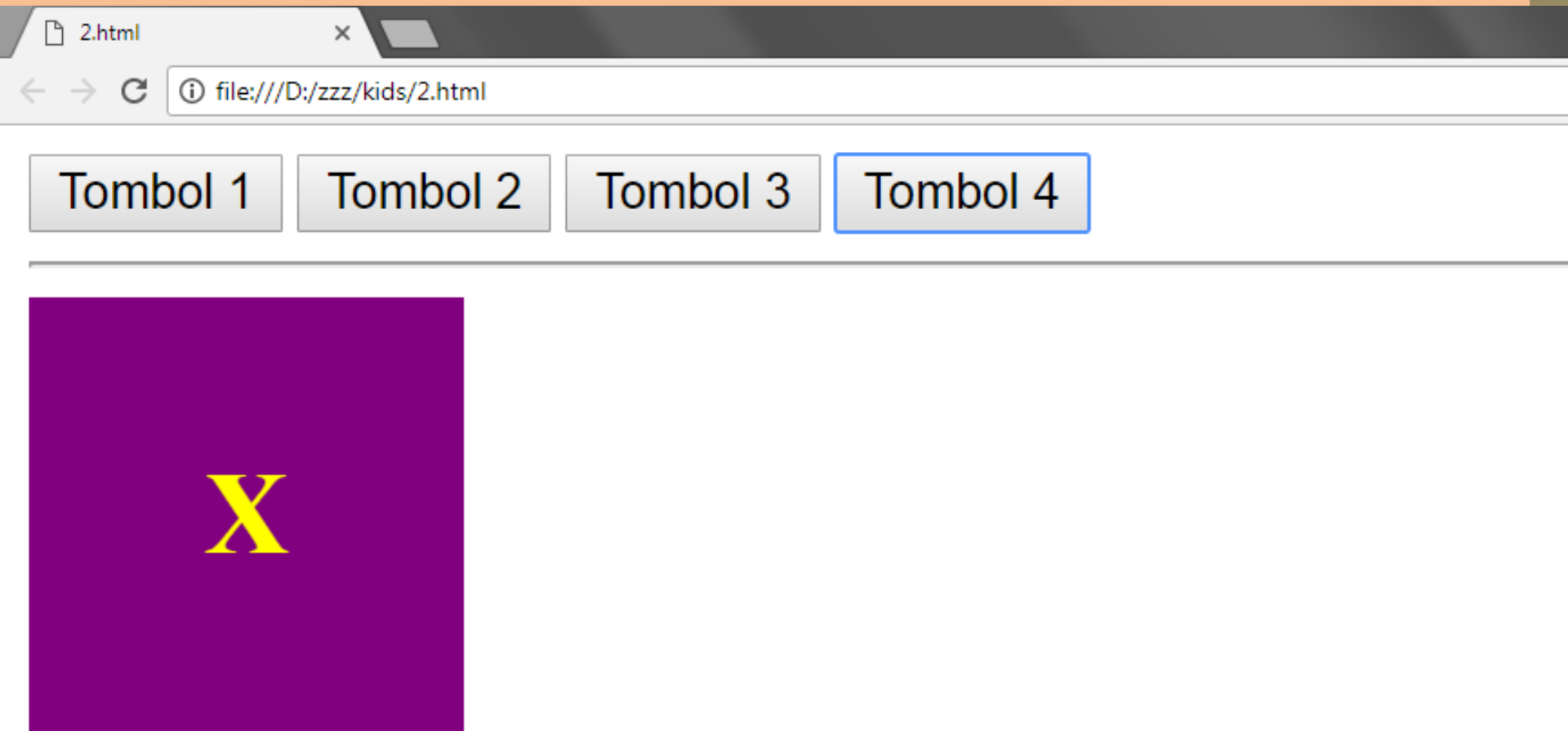
# Template

## #part 2

```
<body>
<div id="container">
  <button id="tombo11">Tombol 1</button>
  <button id="tombo12">Tombol 2</button>
  <button id="tombo13">Tombol 3</button>
  <button id="tombo14">Tombol 4</button>
  <hr>
  <div id="box"><h1>X</h1></div>
</div>
<script>
  $(document).ready(function(){

  });
</script>
</body>
```

# Animation



# Animation

## *Animate Effects*

```
<script>
$(document).ready(function(){
    $('#tombol1').click(function(){
        $('#box').animate({
            left: 300
        });
    });
    $('#tombol2').click(function(){
        $('#box').animate({
            left: 0
        });
    });
});
</script>
```

# Animation

## *Animate Effects*

```
<script>
$(document).ready(function(){
    $('#tombol3').click(function(){
        $('#box').animate({
            top: 200
        });
    });
    $('#tombol4').click(function(){
        $('#box').animate({
            top: 0
        });
    });
});
</script>
```

# Animation

## *Animate Effects*

```
<script>
$(document).ready(function(){
    $('#tombol1').click(function(){
        $('#box').animate({
            left: 0,
            height: '400px',
            width: '400px',
            opacity: '0.5'
        }, 2000);
    });
});
</script>
```



Front-End Development



DOM Manipulation & Animation