# WEB DEVELOPMENT

cesium

## A REALLY SOFT INTRODUCTION

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# .HTML

## HYPER TEXT MARKUP LANGUAGE

# .HTML

## HYPER TEXT MARKUP LANGUAGE

I AM NOT A PROGRAMMING LANGUAGE!

# <html>

I SEE TAGS EVERYWHERE!

# </html>

# TAGS FORMAT

## OPEN-CLOSE

```
<tag> ... </tag>

<tag attribute=“value”> ... </tag>
```

# TAGS

## FORMAT

### SELF-CLOSE

```
<tag/>

<tag attribute=“value”/>
```

```
<!DOCTYPE html>

<html>
   <head>
   </head>

   <body>
   </body>
</html>
```

hello.html

```
<!DOCTYPE html>

<html>
   <head>
   </head>

   <body>
      <p>Hello World, here I am</p>
   </body>
</html>
```

Hello World, here I am

# HEAD TAGS

# SET PAGE'S TITLE

```
<title> ... </title>
```

# METADATA OF PAGE

```
<meta ... />
```

# LINK EXTERNAL REFERENCE

```
<link ... />
```

# DEFINE STYLE OF HTML DOCUMENT

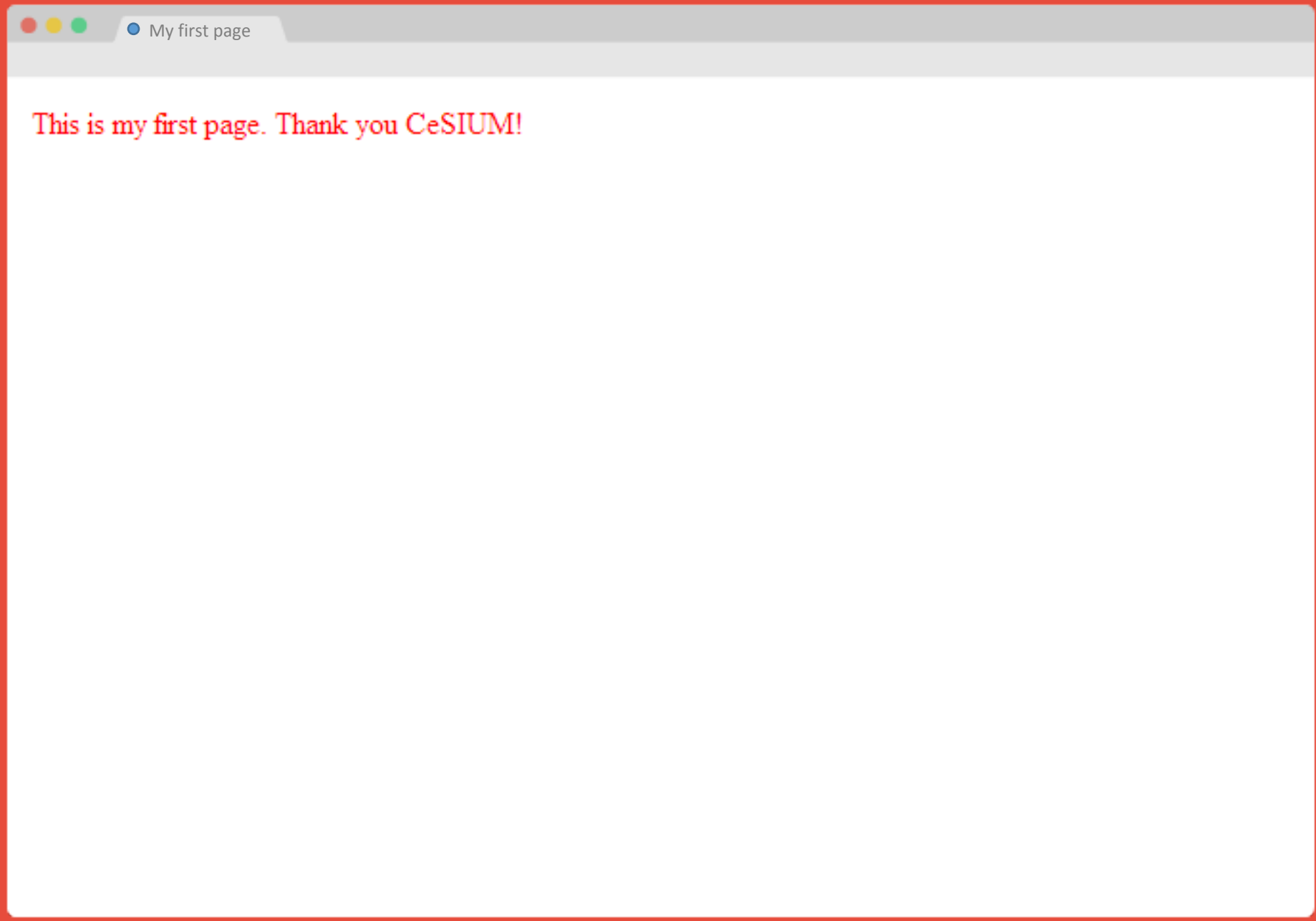
```
<style> ... </style>
```

first.html

```
<!DOCTYPE html>

<html>
   <head>
      <title>My first page</title>
      <meta name="author" content="Francisco Neves"/>
      <link rel="shortcut icon" href="favicon.ico"/>
      <style>
         p { color: red; }
      </style>
   </head>

   <body>
      <p>This is my first page. Thank you CeSIUM!</p>
   </body>
</html>
```


My first page
This is my first page. Thank you CeSIUM!

# ESSENTIAL TAGS

# HEADING TAGS

<h1> ... </h1>

h1, h2, h3, h4, h5, h6

heads.html

```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <h1>This is header 1</h1>
            <h2>This is header 2</h2>
            <h3>This is header 3</h3>
            <h4>This is header 4</h4>
            <h5>This is header 5</h5>
            <h6>This is header 6</h6>
   </body>
</html>
```

# This is header 1

## This is header 2

### This is header 3

#### This is header 4

##### This is header 5

###### This is header 6

# PARAGRAPHS

```
<p> ... </p>
```

pgraphs.html

```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <p>First paragraph</p>
      <p>Second paragraph</p>
      <p>Third paragraph</p>
   </body>
</html>
```

First paragraph

Second paragraph

Third paragraph

# HYPERLINKS

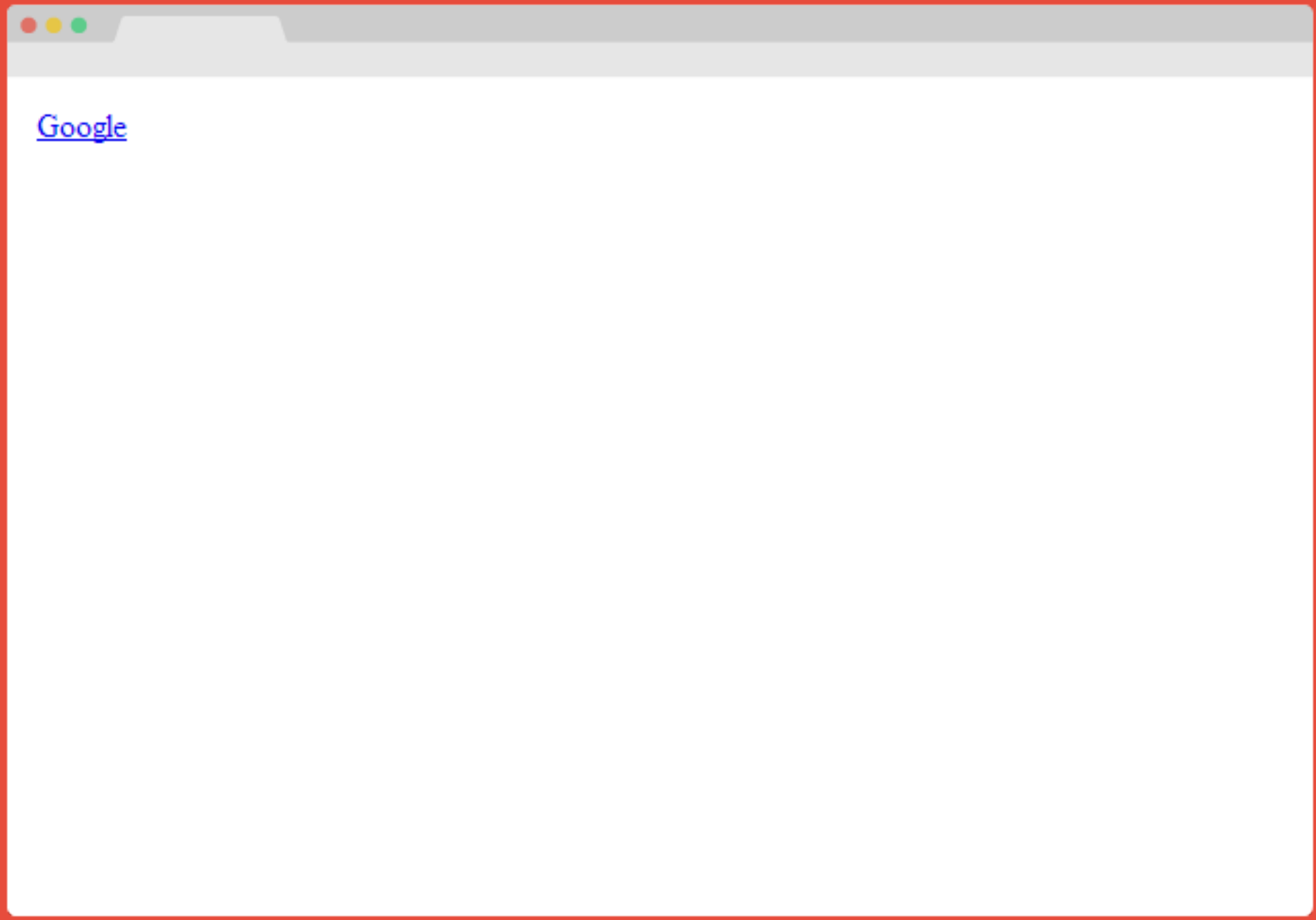
```
<a href=“…”>… </a>
```

links.html

```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <a href="http://google.com">Google</a>
   </body>
</html>
```


Google

# IMAGES

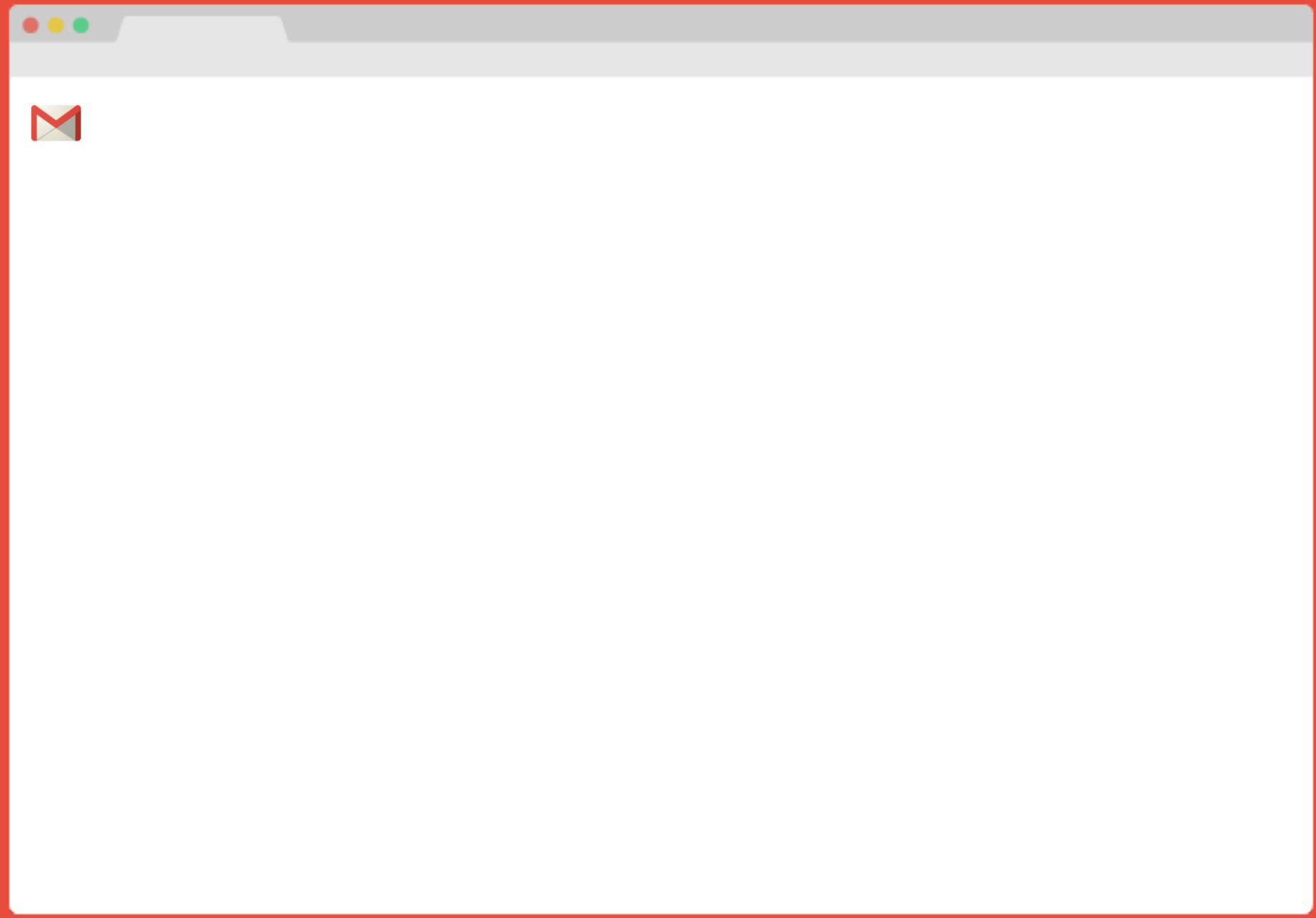
```
<img src="..." alt="..."/>
```

images.html

```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <img src="http://google.com/gm64.png" alt="GMail"/>
   </body>
</html>
```



# LAYOUT TAGS

# TABLES

```
<table> … </table>
```

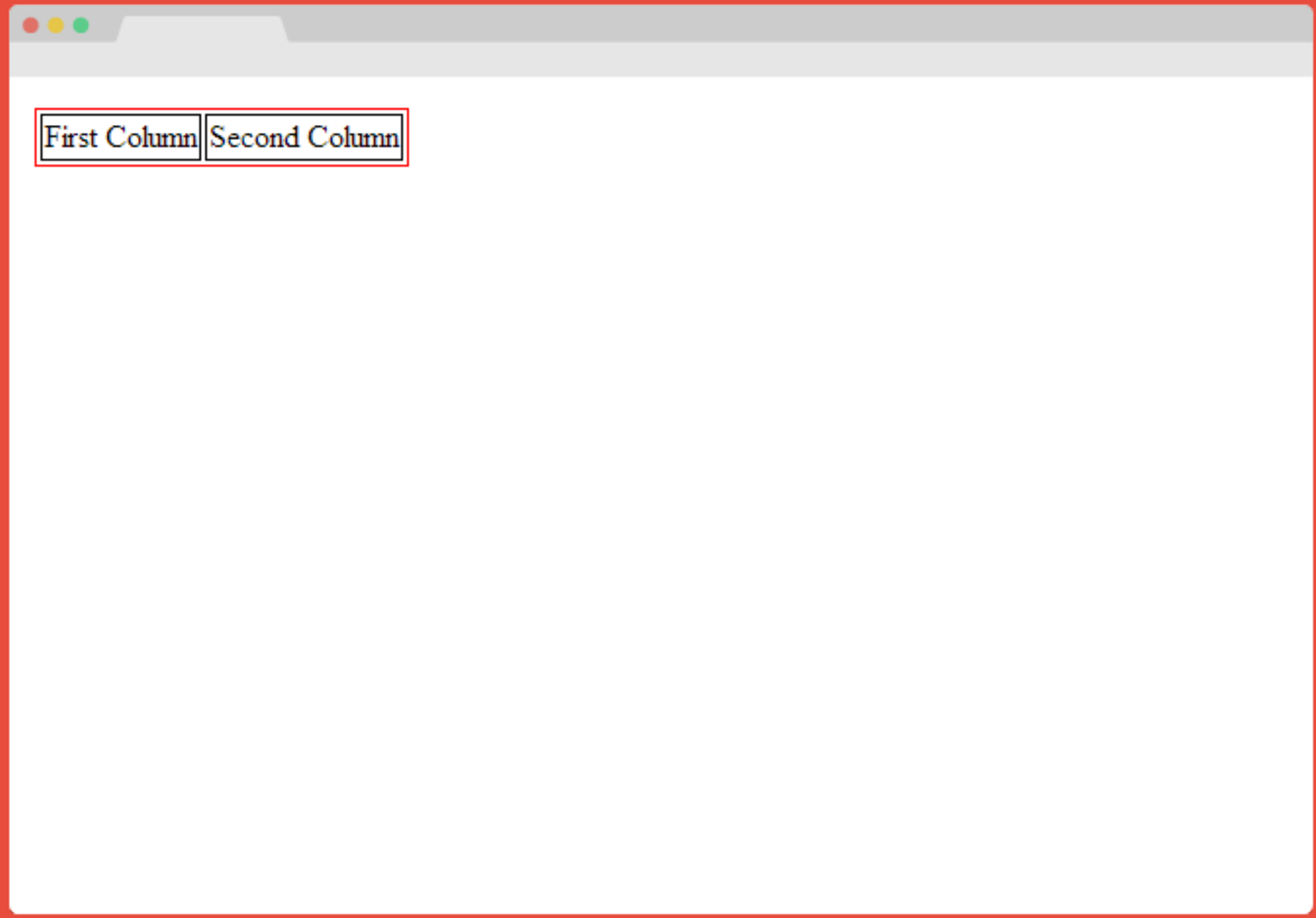
## TABLES REQUIRE ADDITIONAL TAGS

tables.html

```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <table>
         <tr>
            <td>First Column</td>
            <td>Second Column</td>
         </tr>
      </table>
   </body>
</html>
```


First Column
Second Column

# LISTS

```
<ul> ... </ul>
```

## LISTS REQUIRE ADDITIONAL TAGS

lists.html

```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <ul>
         <li>First element</li>
         <li>Second element</li>
      </ul>
   </body>
</html>
```

- First element
- Second element

# BLOCKS

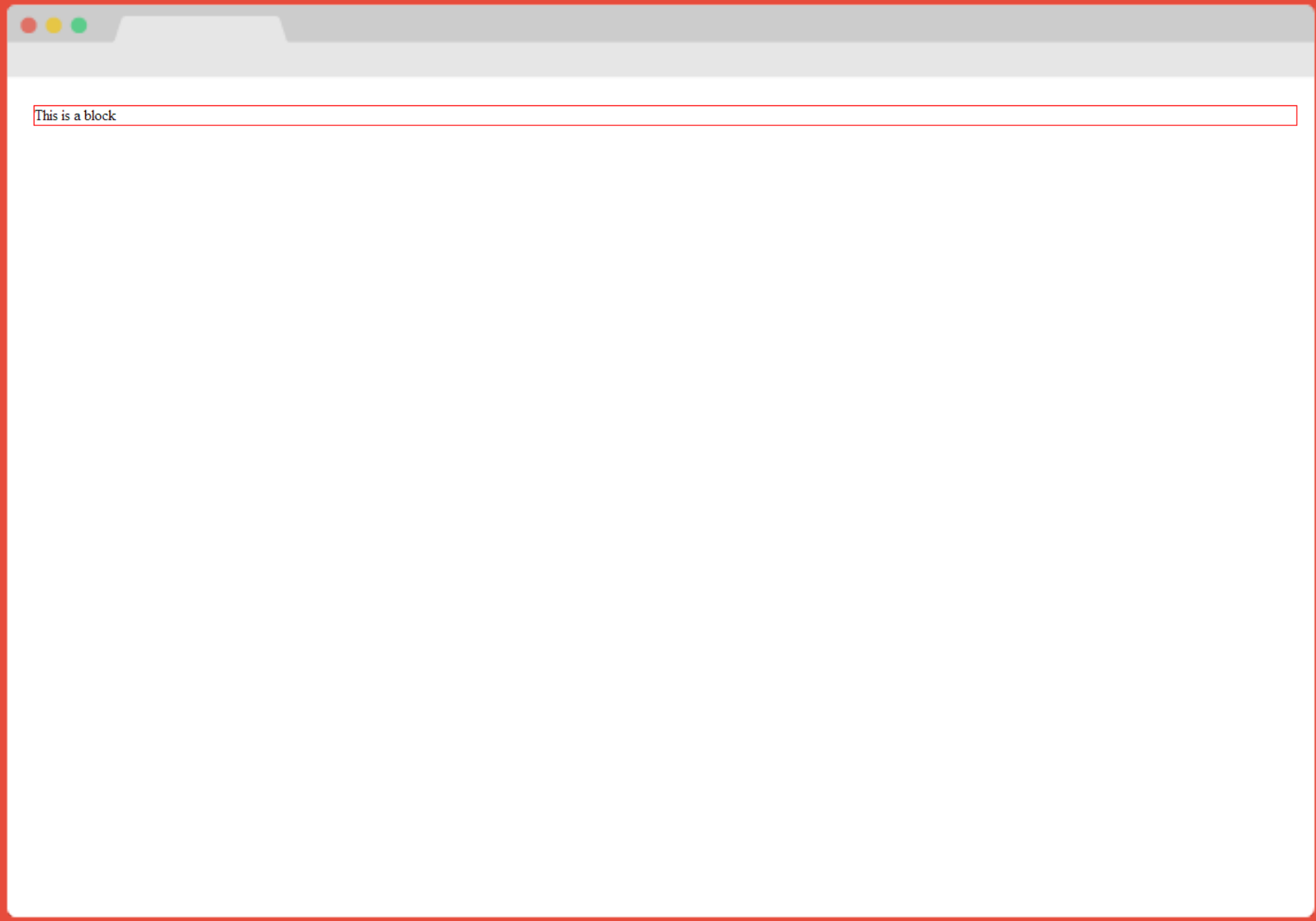
```
<div>… </div>
```

div.html

```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <div>This is a block</div>
   </body>
</html>
```


This is a block

# FORM TAGS

# FORM CONTAINER

```
<form ... > ... </form>
```

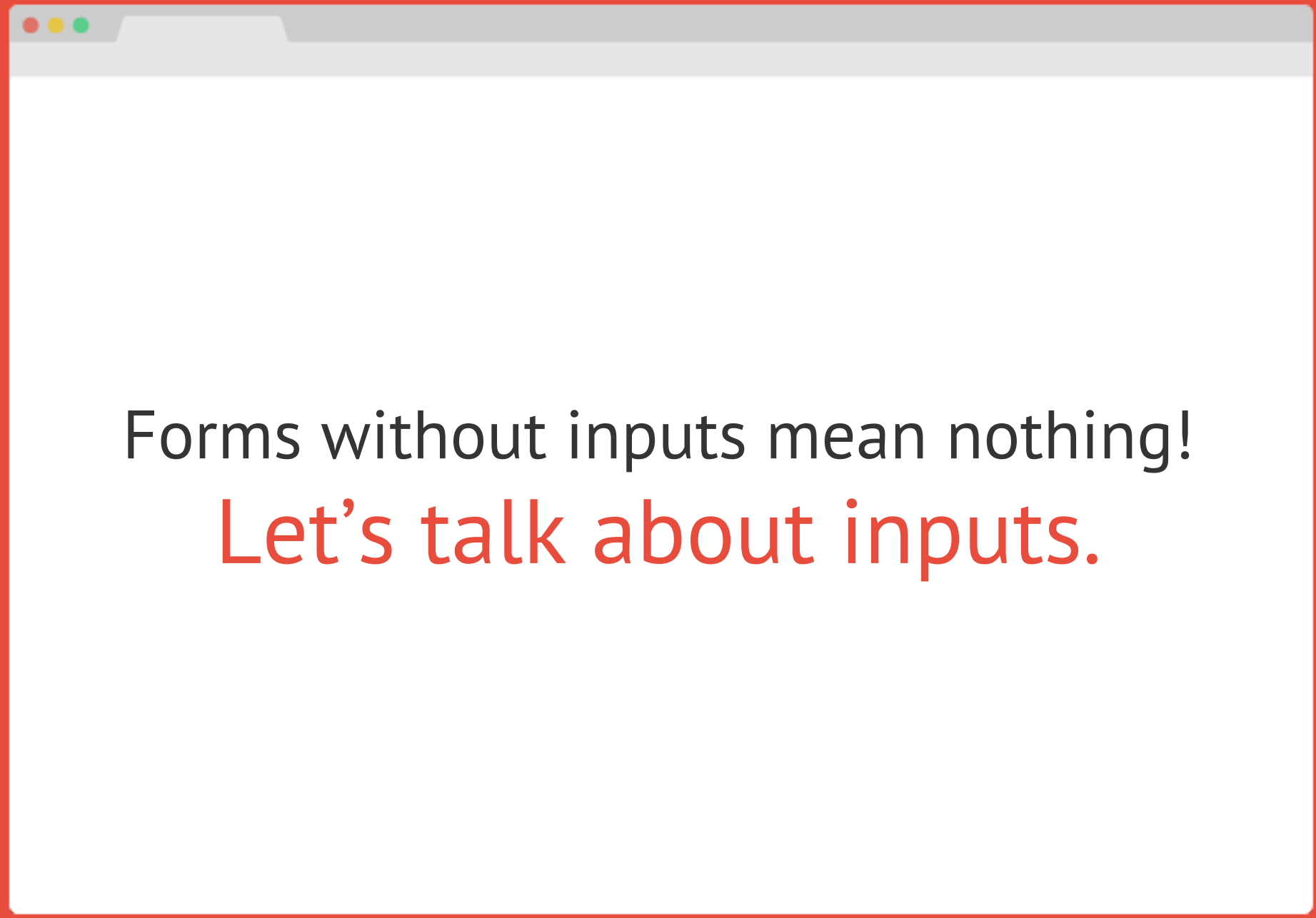
## FORMS REQUIRE ATTRIBUTES

form.html

```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <form action="page.php" method="post">
         ...
      </form>
   </body>
</html>
```


Forms without inputs mean nothing!
Let’s talk about inputs.

# TEXTFIELD INPUT

```
<input type=“text”/>
```

# PASSWORD INPUT

```
<input type=“password”/>
```

# CHECKBOX INPUT

```
<input type=“checkbox”/>
```

# RADIO INPUT

```
<input type=“radio”/>
```

# SUBMIT INPUT

```
<input type=“submit”/>
```

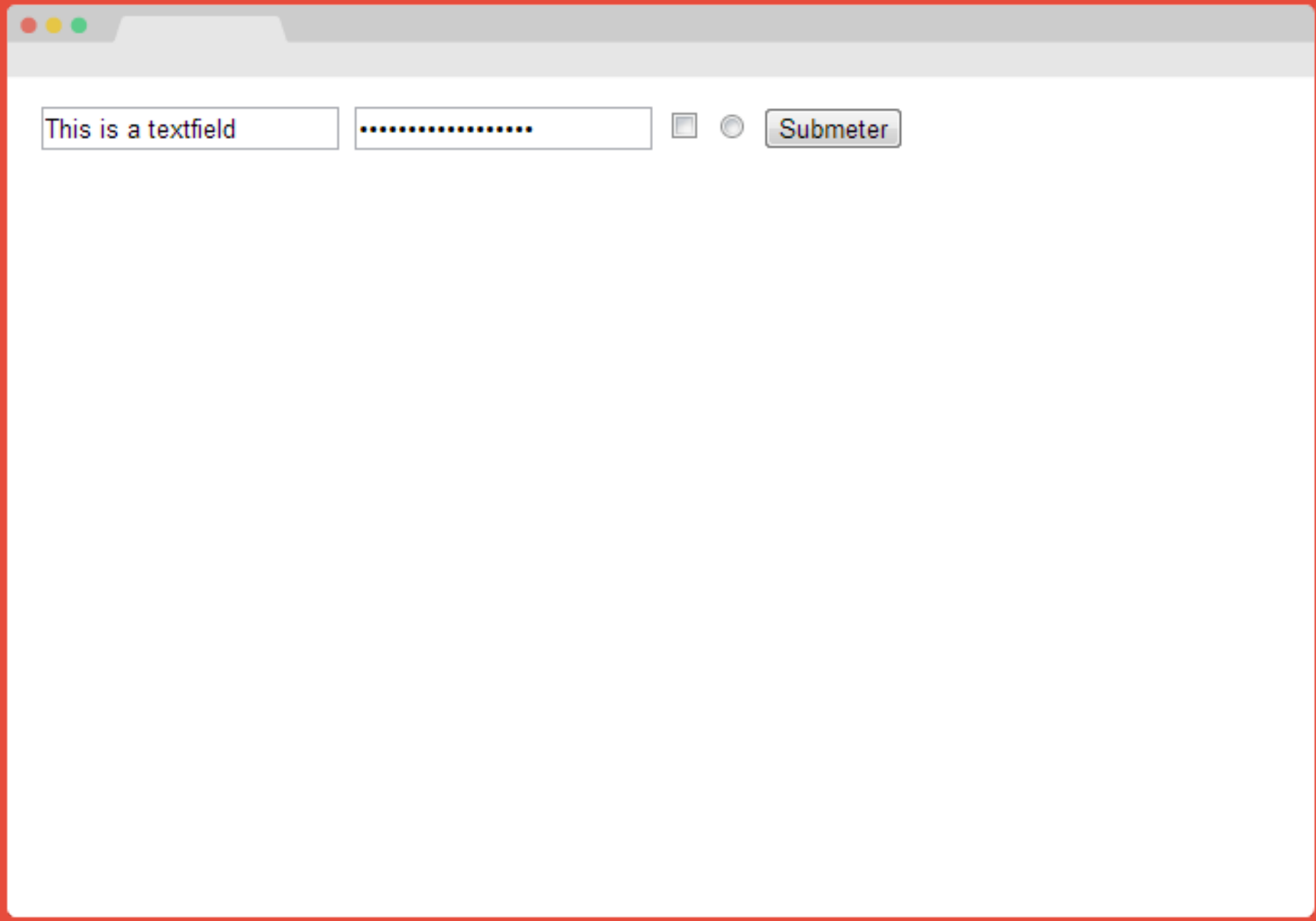
form.html

```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <form action="page.php" method="post">
         <input type="text" name="my_text"/>
         <input type="password" name="my_password"/>
         <input type="checkbox" name="my_checkbox"/>
         <input type="radio" name="my_radio"/>
         <input type="submit" name="my_submit"/>
      </form>
   </body>
</html>
```

**ALL INPUTS MUST HAVE NAME ATTRIBUTE**


This is a textfield
Submeter

# ALL THESE INPUTS HAVE VALUES

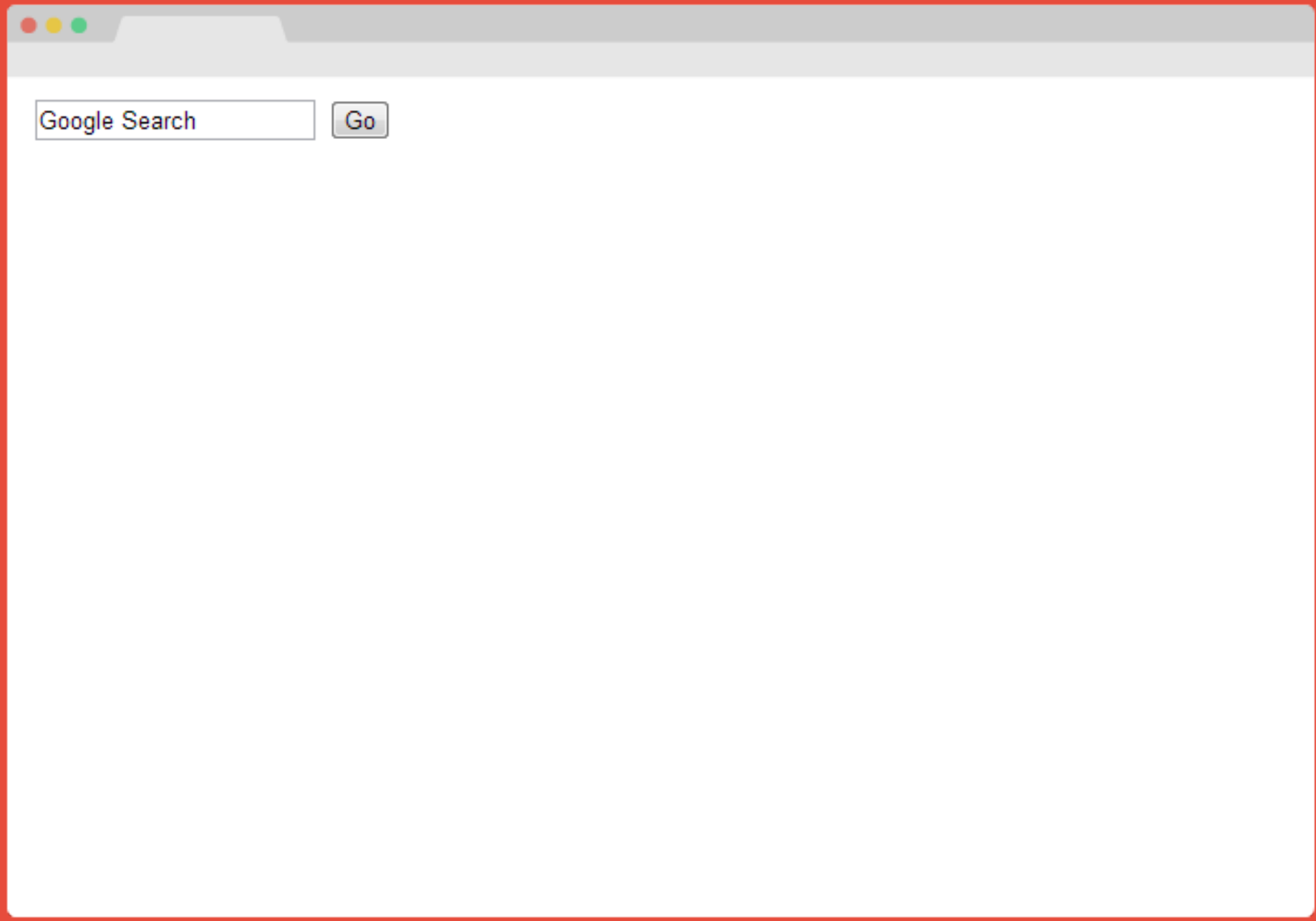
```
<input type="..." value="..."/>
```

inputval.html

```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <form action="page.php" method="post">
         <input type="text" ... value="Google Search"/>
         <input type="submit" ... value="Go"/>
      </form>
   </body>
</html>
```


Google Search
Go

# FILE INPUT

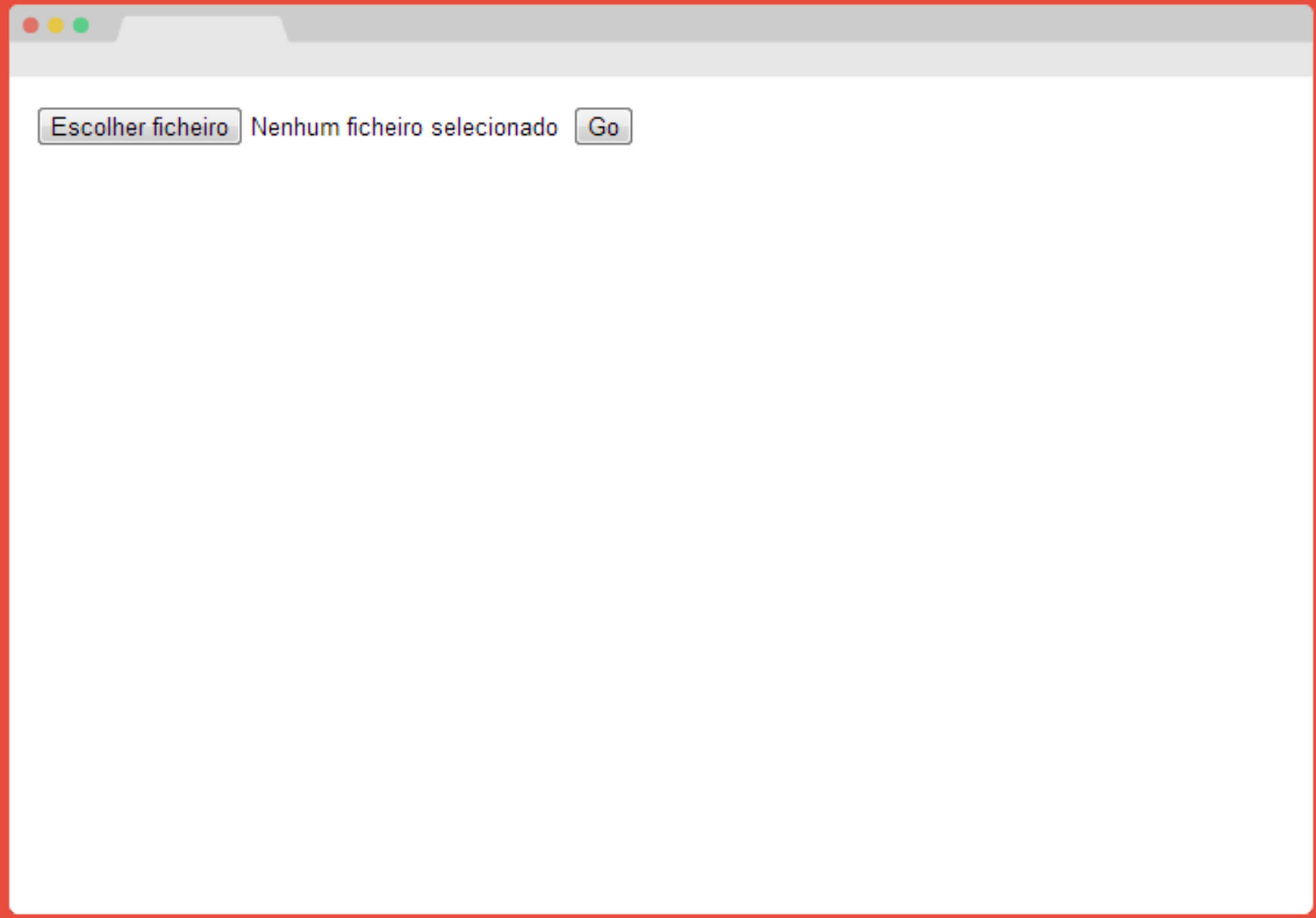
```
<input type=“file”/>
```

file.html

```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <form action="page.php" method="post">
         <input type="file" name="my_file"/>
         <input type="submit" name="my_submit" value="Go"/>
      </form>
   </body>
</html>
```


Escolher ficheiro
Nenhum ficheiro selecionado
Go

# DROPDOWN LIST

```
<select ... > ... </select>
```

**SELECT TAG REQUIRES OPTIONS**

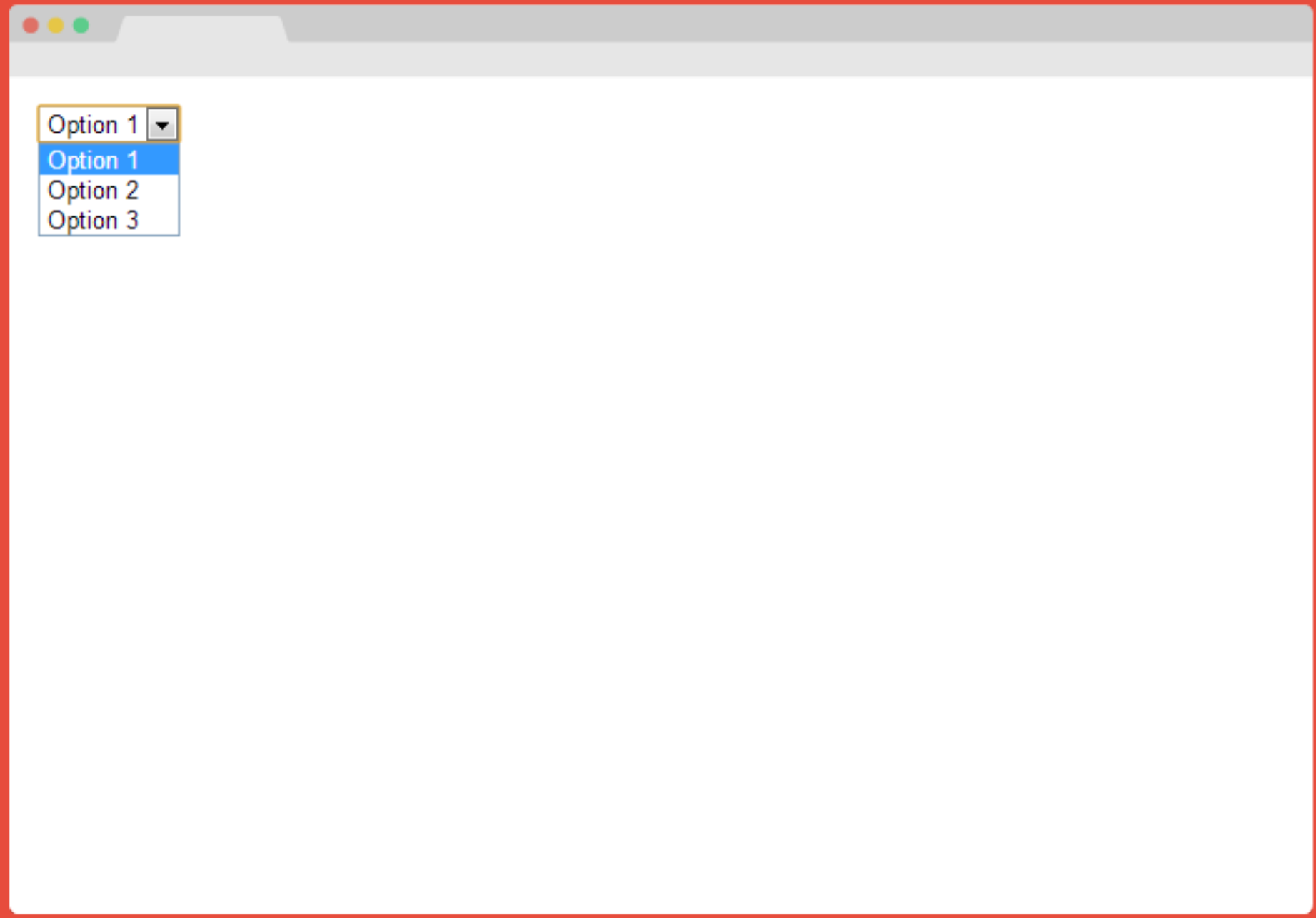
select.html

```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <form action="page.php" method="post">
         <select name="my_select">
            <option value="1">Option 1</option>
            <option value="2">Option 2</option>
            <option value="3">Option 3</option>
         </select>
      </form>
   </body>
</html>
```

**SELECT MUST HAVE NAME ATTRIBUTE**


Option 1
Option 1
Option 2
Option 3

# INCLUDE SCRIPTS

```
<script> … </script>
```

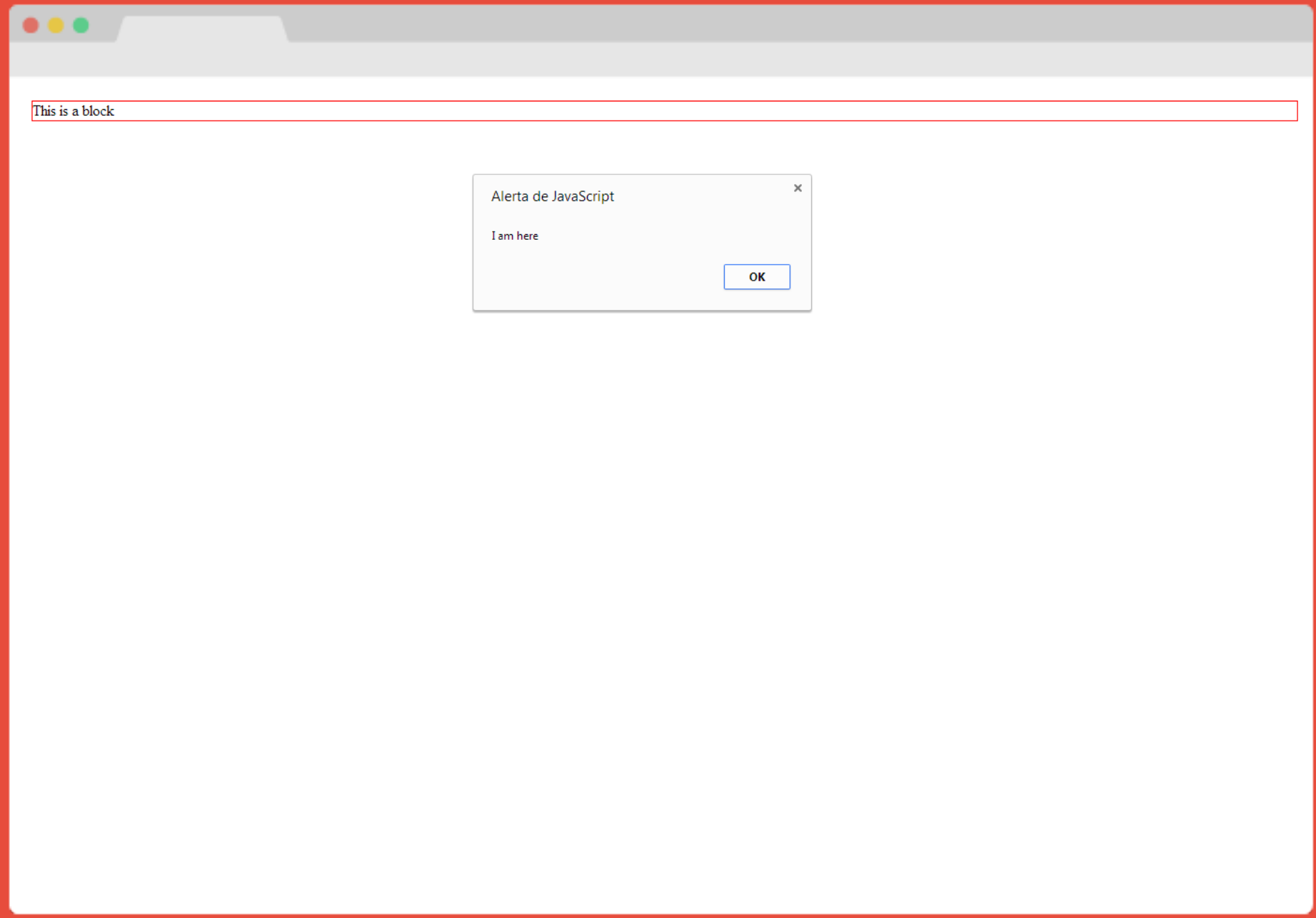
script.html

```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <div>This is a block</div>
      <script>
         alert("I am here");
      </script>
   </body>
</html>
```

# USING JAVASCRIPT


This is a block
Alerta de JavaScript
I am here
OK

# HTML ENTITIES

```
&lt;        &gt;
```

entities.html

```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      &lt; These entities are great &gt;
   </body>
</html>
```

< These entities are great >

# HTML COMMENTS

```
<!-- comment -->
```

**HTML COMMENTS DON’T LIKE TO BE NESTED**

coms.html

```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <div>This is a block</div> <!-- My block -->
   </body>
</html>
```

# ID ATTRIBUTE

```
<element id="…"> …
```

## DON'T USE THE SAME ID TWICE

ids.html

```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <div id="main-content"></div>
      <div id="main-content"></div> <!-- Don't do it! -->
   </body>
</html>
```

# CLASS ATTRIBUTE

```
<element class="…"> …
```

**YOU CAN ATTRIBUTE THE SAME CLASS TWICE**

class.html

```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <div class="header"></div>
      <div class="header"></div> <!-- You can do it! -->
   </body>
</html>
```

# .CSS

## CASCADING STYLESHEETS

# .CSS

## ONLY USES STYLES

# IMPORTING

## LINK TAG ON HTML

**css.html**

```
<!DOCTYPE html>

<html>
   <head>
      <link rel="stylesheet" href="css/main.css"/>
   </head>

   <body>
      ...
   </body>
</html>
```

```
selector { attribute:
value; ... }
```

```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <div>This is a block</div>
   </body>
</html>
```

**ELEMENT SELECTOR**

```
div { ... }
```

```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <div id="main-content"></div>
   </body>
</html>
```

**#ID SELECTOR**

```
#main-content { ... }
```

```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <div class="header"></div>
      <div class="header"></div>
   </body>
</html>
```

## .CLASS SELECTOR

```
.header { ... }
```

# BACKGROUND

```
background-color: #a5a5a5;
```

```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <div class="header">Header</div>
      <div class="header">Header</div>
   </body>
</html>
```

**.CSS FILE**

```
.header { background-color:
#a5a5a5; }
```

Header
Header

# TEXT

```
text-transform: uppercase;
```

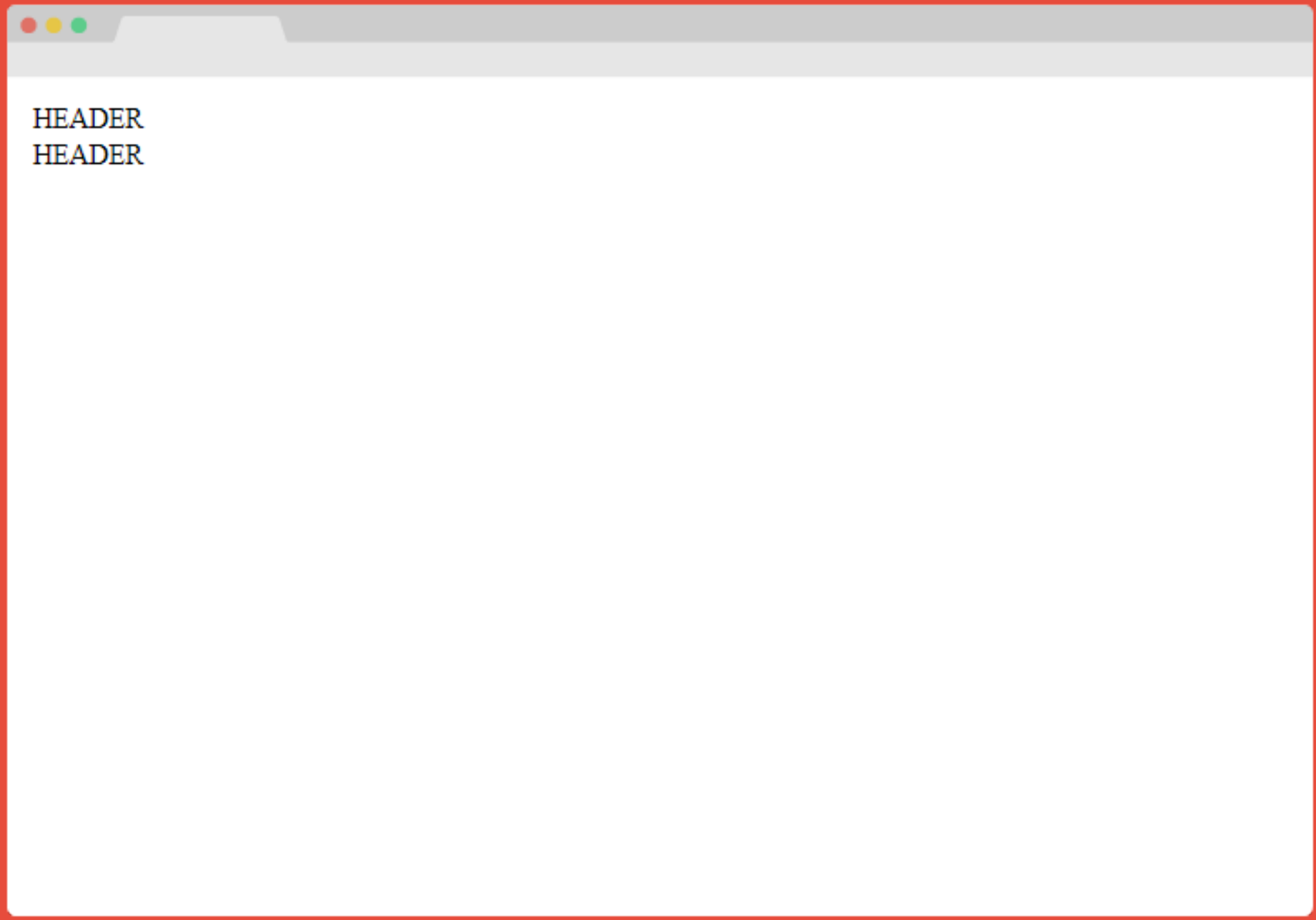
```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <div class="header">Header</div>
      <div class="header">Header</div>
   </body>
</html>
```

**.CSS FILE**

```
.header { text-transform:
uppercase; }
```


HEADER
HEADER

# FONT

```
font-size: 40px;
```

```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <div class="header">Header</div>
      <div class="header">Header</div>
   </body>
</html>
```

**.CSS FILE**

```
.header { font-size: 40px; }
```

Header
Header

# BORDER

```
border: 1px solid #000000;
```

```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <div class="header">Header</div>
      <div class="header">Header</div>
   </body>
</html>
```

**.CSS FILE**

```
.header { border: 1px solid
#000000 }
```

| Header |
| --- |
| Header |

# TEXT COLOR

```
color: #00a244;
```

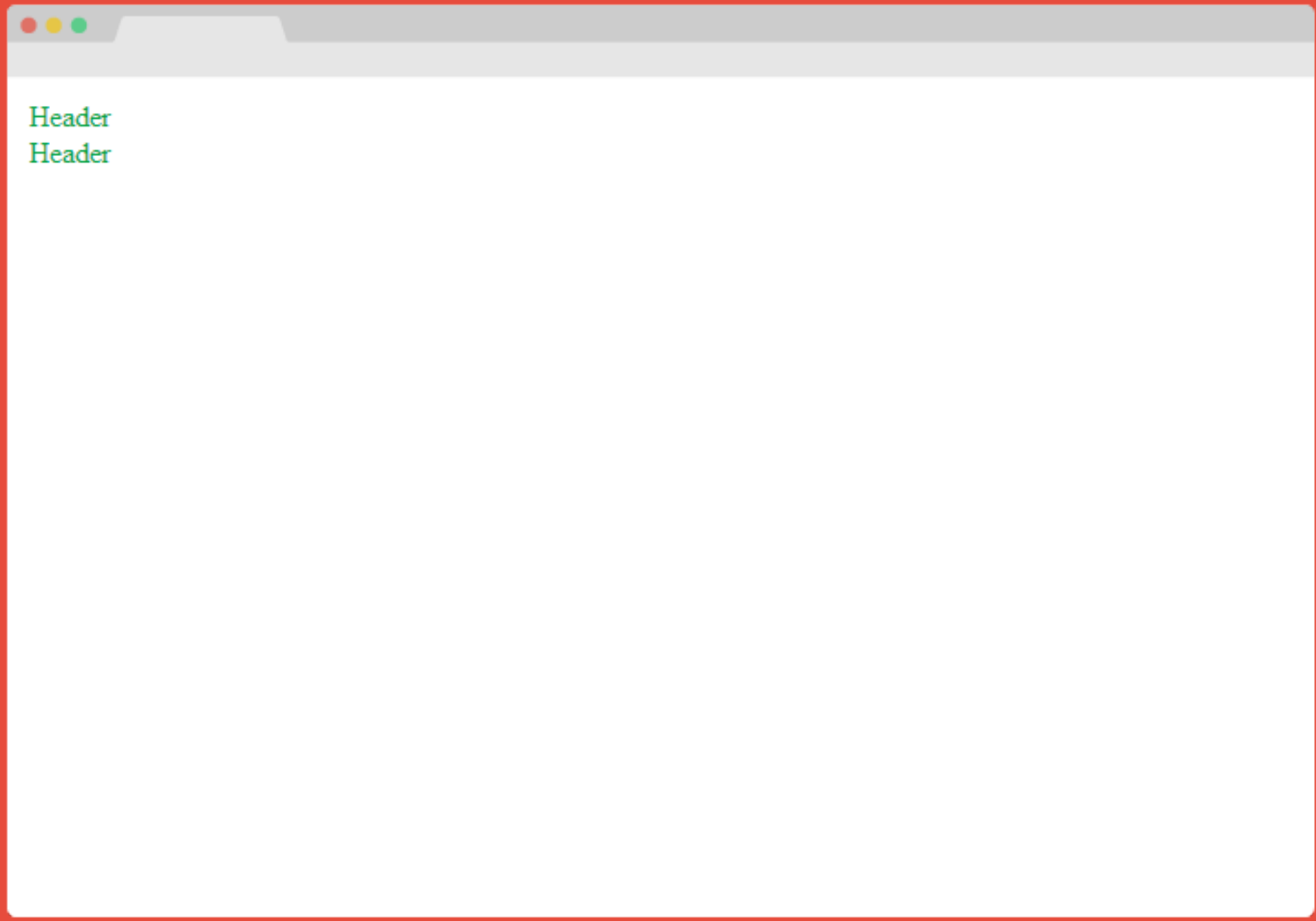
```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <div class="header">Header</div>
      <div class="header">Header</div>
   </body>
</html>
```

**.CSS FILE**

```
.header { color: #00a244 }
```


Header
Header

# MARGIN

```
margin: 25px;
```

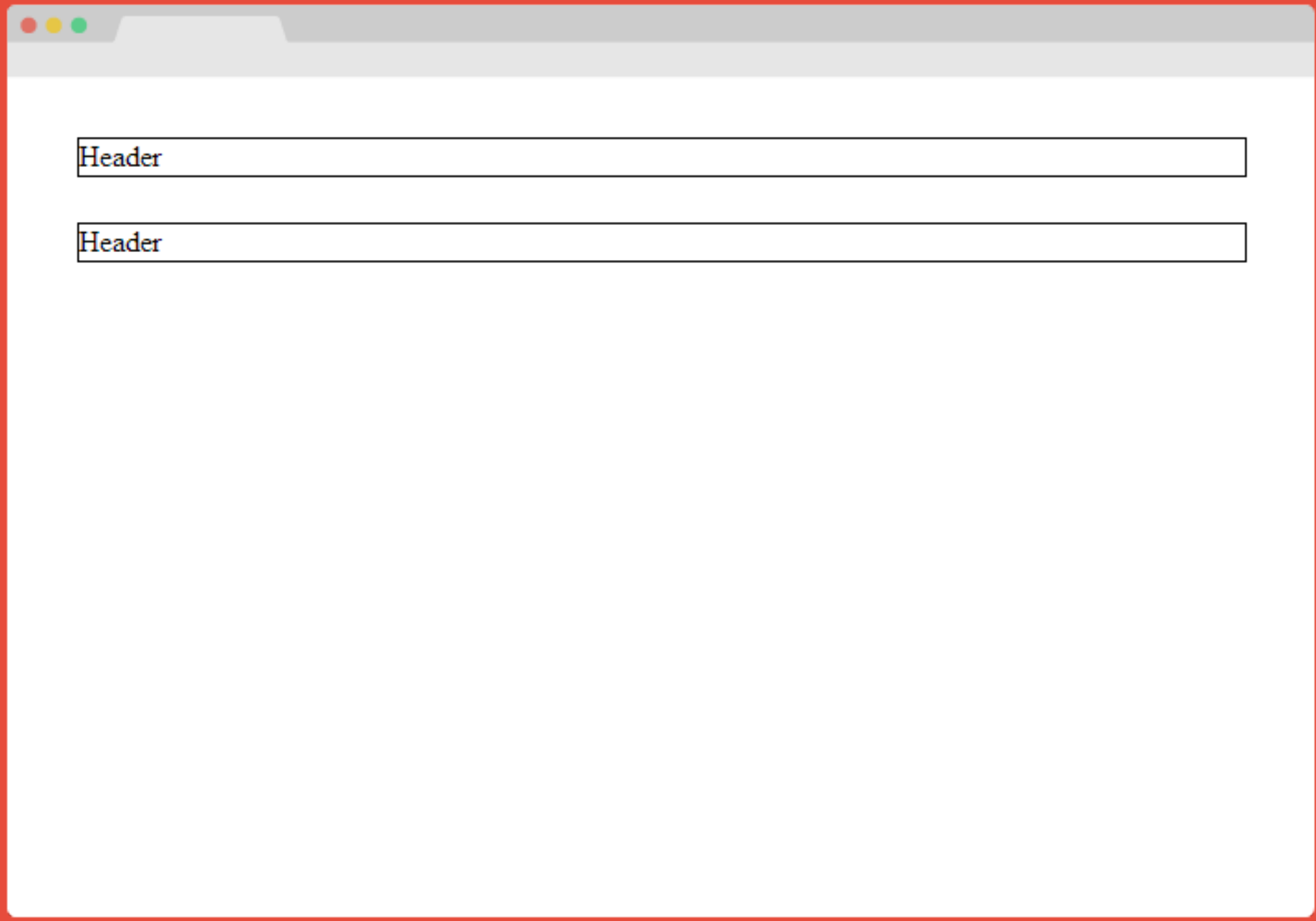
```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <div class="header">Header</div>
      <div class="header">Header</div>
   </body>
</html>
```

**.CSS FILE**

```
.header { margin: 25px }
```


Header
Header

# PADDING

```
padding: 25px;
```

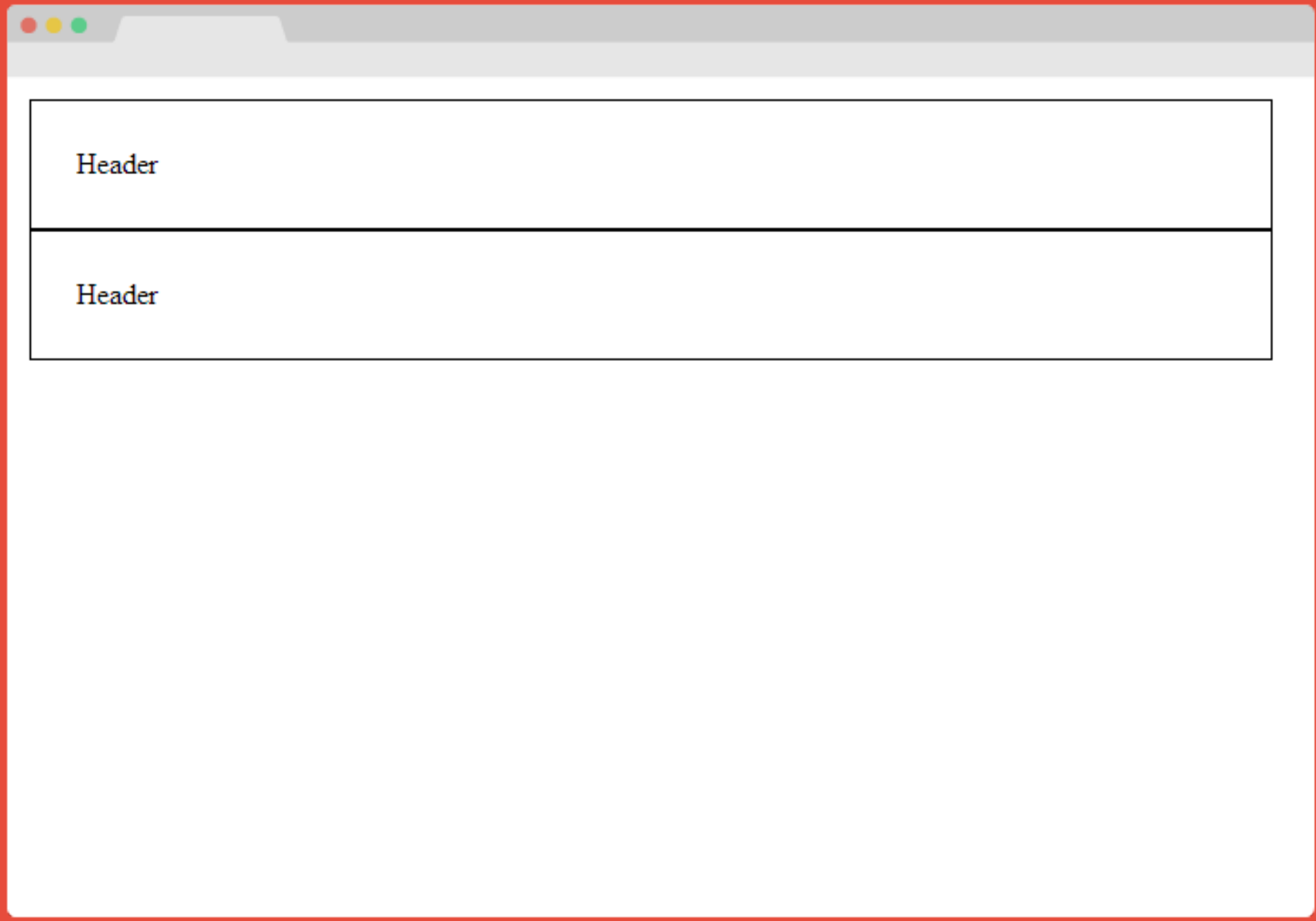
```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <div class="header">Header</div>
      <div class="header">Header</div>
   </body>
</html>
```

.CSS FILE

```
.header { padding: 25px }
```


Header
Header

# DISPLAY

```
display: inline-block;
```

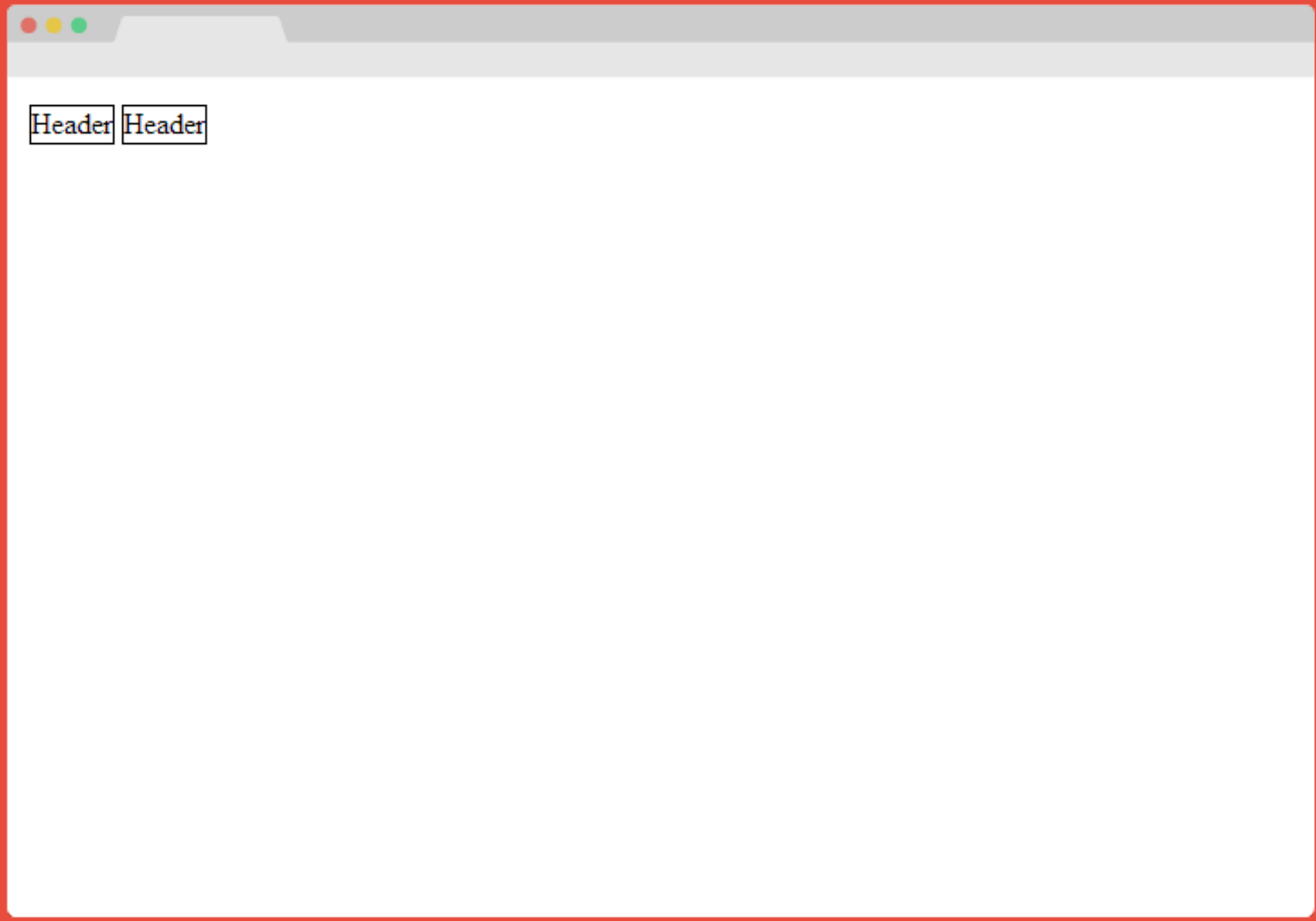
```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <div class="header">Header</div>
      <div class="header">Header</div>
   </body>
</html>
```

**.CSS FILE**

```
.header { display: inline-block }
```


Header
Header

# FLOATING

```
float: right;
```

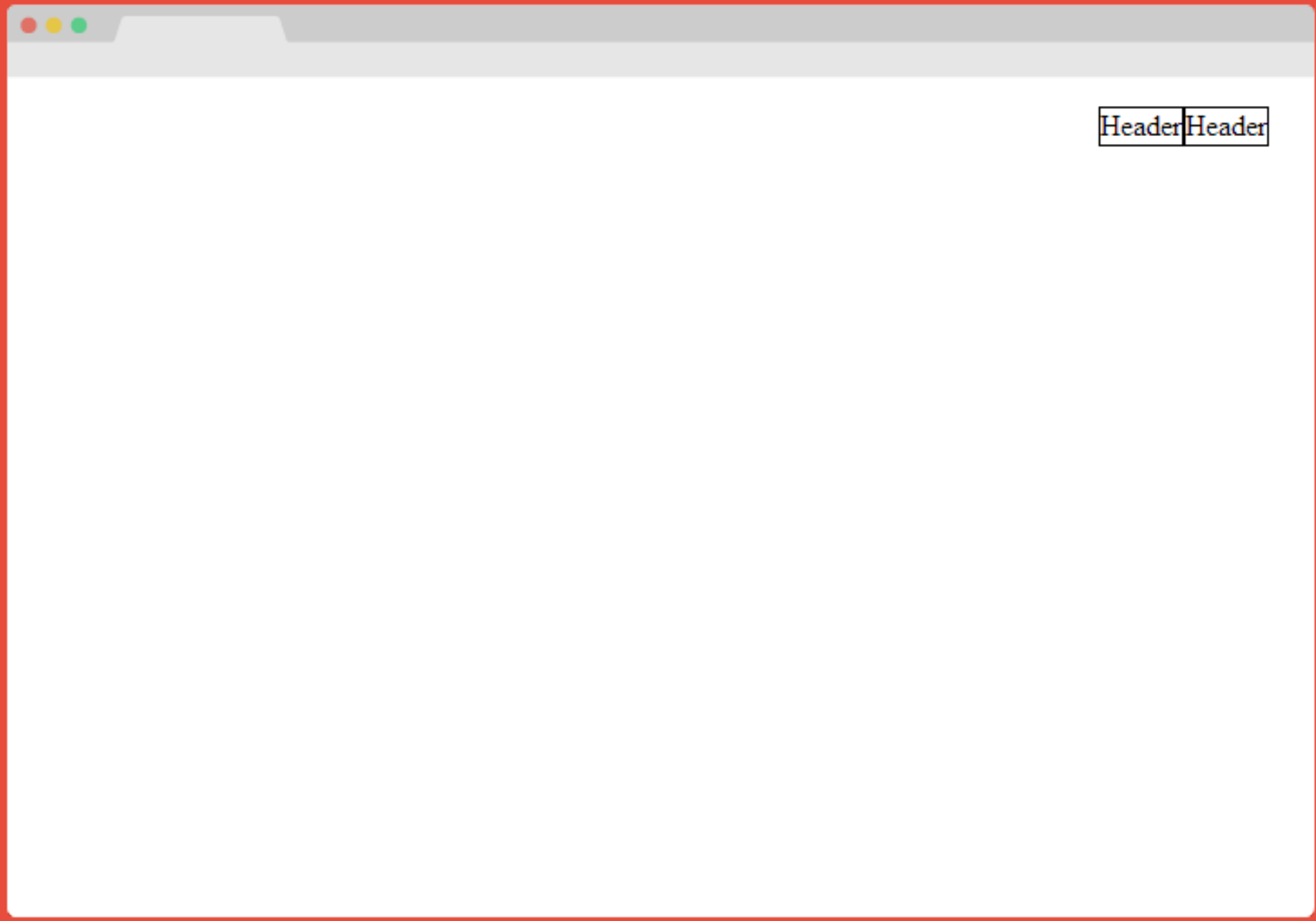
```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <div class="header">Header</div>
      <div class="header">Header</div>
   </body>
</html>
```

**.CSS FILE**

```
.header { float: right }
```


Header
Header

# POSITIONING

```
position: absolute;
```

**IF PARENT HAS RELATIVE POSITION, THEN THIS POSITION IS RELATIVE TO PARENT'S POSITION**

# POSITIONING

```
top: 50px;
```

THE ELEMENT HAS 50PX TOP OFFSET

```
<!DOCTYPE html>

<html>
   <head>
      ...
   </head>

   <body>
      <div class="header">Header</div>
      <div class="header">Header</div>
   </body>
</html>
```

**.CSS FILE**

```
.header { position: absolute; top:
50px }
```

Header

# ADVANCED

## CSS TOPICS

# EVENTS

```
selector:hover { … }
```

**ATTRIBUTES WILL BE APPLIED IN HOVER EVENT**

# ATTRIBUTE-BASED SELECT

```
selector([target=“_blank”]) { … }
```

**ATTRIBUTES WILL BE APPLIED IF ELEMENT HAS TARGET ATTRIBUTE SET TO “_blank”**

# FRANCISCO NEVES

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# FERNANDO MENDES

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