

1 **Info**

The exam contains 16 exercises. You can collect 60 points in total.

Grading:

- 0-21: F
- 22-26: E
- 27-31: D
- 32-42: C
- 43-47: B
- 48-60: A

The scoring of multiple choice questions is as follows

- The correct solution is 2 points
- Wrong answer is -1 point

You are allowed to use all material in printed or in electronic format, and the following websites:

- w3schools.com (except the online 'tryit' editors)
- github.com/uis-dat310-spring19/course-info
- speakerdeck.com/ljehl
- translate.google.com

It is not allowed to 'run' any of the sources and test them in a browser.

If you have comments to any of the exercises, you may write them here

Maximum marks: 0

2 **HTML coding 1**



Write HTML code to display the clown. (3 points)

- The image is located at <http://images.clipartpanda.com/clown-clip-art-clown-clip-art-10.gif>
- The image should be displayed in 100px width.
- If the image cannot be displayed, the alternate text "Mr. Clown" should appear.

Write HTML code here

Maximum marks: 3

3 **HTML guess 1**

Which of the following elements is not required in a valid HTML document?
Select an alternative:

- ☐ <body>
- ☐ <head>
- ☐ <html>
- ☐ <header>



Maximum marks: 2

4 **HTML guess 2**

Which of these is *not* a block-level element? (2 points)

Select an alternative:

- ☐ input
- ☐ table
- ☐ form
- ☐ div
- ☐ p




Maximum marks: 2

5 **CSS styling**

Apples

"An apple a day keeps the doctor away!"



Some types of apples

- Red delicious
- Golden delicious
- Granny smith
- Crabapple
- Gala apple
- Red Rome apple
- Ginger gold
- Fuji apple

Other types of apples

Apple iPod
This apple is poisonous

Steve Jobs
The tallest apple

Write the contents of an external CSS file that would display the given HTML page as shown.
(10 points)

You are not allowed to make changes to the HTML source.

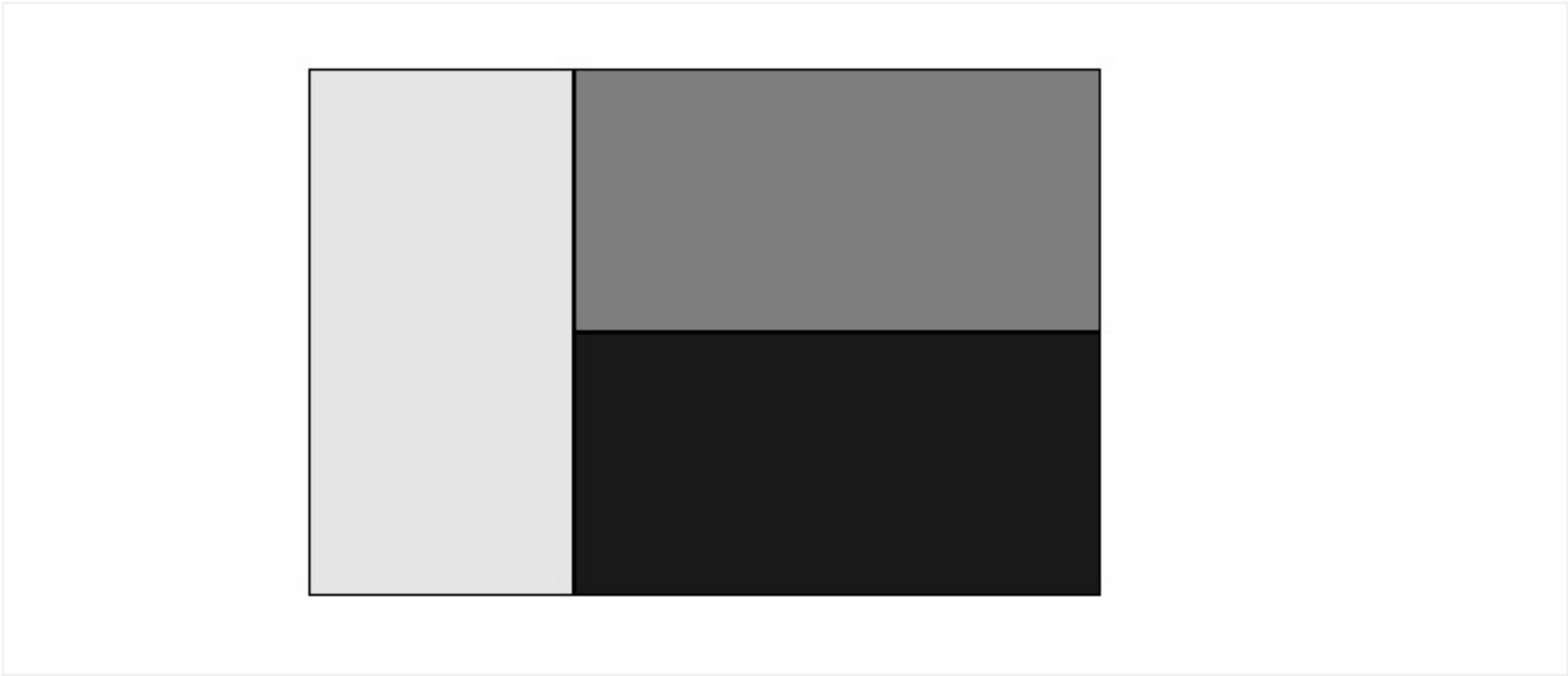
HTML source:

```
<!DOCTYPE html>
<html>
<head>
  <title>Apples</title>
  <link rel="stylesheet" href="styling3.css" />
</head>
<body>
  <div id="apples">
    <h1>Apples</h1>
    <p class="quote">"An apple a day keeps the doctor away!"</p>
    
  </div>
  <div id="links">
    <h2>Some types of apples</h2>
    <ul class="white-list">
      <li>Red delicious</li>
      <li>Golden delicious</li>
      <li>Granny smith</li>
      <li>Crabapple</li>
      <li>Gala apple</li>
      <li>Red Rome apple</li>
      <li>Ginger gold</li>
      <li>Fuji apple</li>
    </ul>
    <h2>Other types of apples</h2>
    <ul class="outer-black-list">
      <li>Apple iPod
        <ul class="inner-black-list">
          <li>This apple is poisonous</li>
        </ul>
      </li>
      <li>Steve Jobs
        <ul class="inner-black-list">
          <li>The tallest apple</li>
        </ul>
      </li>
    </ul>
  </div>
</body>
</html>
```

Specific requirements:

- Notice that there are two distinct sections on the page (apples and links)
 - Set the width of each main section to 300px
 - Display the two main sections next to each other (the easiest way to achieve this is by making both divs to float to the left)
 - The content inside each section should be 20 pixels away from all edges
 - The right section has a 2 pixel wide outset green (#359636) border and a background of #99cc99
- Make all headings green (#359636) and make them use the font Garamond. Use a serif font if Garamond is not available.
- The quote should be italicized.
- The "some types of apples" list is white and the font size is 120%
- The "other types of apples" section contains two lists
 - These lists don't use any list marker
 - The outer list items are bolded
 - The indentation is 0px for the outer list and 30px for the inner list (you can set this by changing the left padding value)
 - Keep in mind that the inner list will not inherit all properties (for example, list markers) from the outer list

6 CSS complete



Complete the HTML code such that the page is displayed as shown above. (6 points)

- Assign id and/or class attributes to each div.
- If both are needed, write the id first and then the class, e.g., id="x" class="y".
- Hint: each id and class has to be used exactly once.
- Each correct div is 2 points; there are no minus points for incorrect answers.

```
<!DOCTYPE html>
<html>
<head>
  <title>CSS complete 1</title>
  <style>
    div {
      background-color: black;
      border: 1px solid black;
      width: 200px;
      height: 100px;
      float: left;
    }
    #james {
      background-color: rgba(0, 0, 0, 0.9);
      clear: left;
    }
    #joe {
      background-color: rgba(0, 0, 0, 0.1);
      width: 100px;
      height: 200px;
    }
    .rp {
      margin-top: -101px;
      margin-left: 102px;
    }
    .ho {
      background-color: rgba(0, 0, 0, 0.5);
    }
  </style>
</head>
<body>
  <div  (id="joe")></div>
```

<div

(class="ho")></div>

<div

(id="james" class="rp")></div>

</body>

</html>

Maximum marks: 6

7 CSS guess 1

The default way content is positioned on the page is?
Select an alternative:

- ☒ static positioning
- ☐ relative positioning
- ☐ fixed positioning
- ☐ absolute positioning

Maximum marks: 2

8 CSS guess 2

Which of the following is not an inline level element?
Select an alternative:

- ☐
- ☐
- ☒ <footer>
- ☐ <time>

Maximum marks: 2

5/11

9 CSS guess 3

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>CSS guess</title>
  <style>
    p { color: red; }
    body div { color: brown; }
    div#pagewrapper { color: blue; }
    #pagewrapper div.content { color: green; }
  </style>
</head>
<body>
  <div id="pagewrapper">
    <div class="content">
      <p>This is the main paragraph.</p>
    </div>
  </div>
</body>
</html>
```

What color will be the paragraph text? (2 points)

Select an alternative:

- ☐ green
- ☐ blue
- ☐ red
- ☐ brown



Maximum marks: 2

10

CSS guess 4

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>CSS guess</title>
  <style>
    * {color: yellow;}
    p {color: red;}
    .bar {color: blue;}
  </style>
</head>
<body>
  <div id="main" class="container">
    <p id="foo" class="bar boo">Something clever goes here</p>
  </div>
</body>
</html>
```

What color will the text be? (2 points)

Select an alternative:

- ☐ red
- ☒ blue
- ☐ yellow
- ☐ black



Maximum marks: 2

11

JS what

What is the output of the following JavaScript code? (3 points)

```
function rs(str) {
  var str2 = "";
  for (var i = 0; i < str.length; i++) {
    if (i > 0) {
      str2 = str2.concat("-");
    }
    str2 = str2.concat(str.charAt(str.length - i - 1).toUpperCase());
  }
  return str2.concat("!");
}

console.log(rs("abr"));
```

Skriv svaret her (R-B-A!)

Maximum marks: 3

12 JS prog 1

Write HTML and JavaScript code that displays a 200x200px blue div and shows the text "Double clicked blue rectangle" in a message dialog (alert) if the user double clicks the div. (4 points)

Formatting of the div has to be done using inline CSS.

Write HTML here

Maximum marks: 4

13 JS prog 2

Rows: Cols: Create

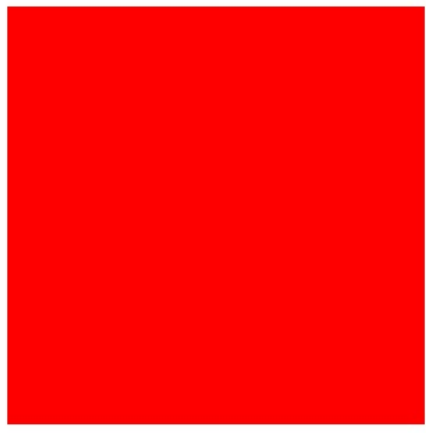
Create a checkered board of the specified size using JavaScript or jQuery. (8 points)

- The size of the board is given in the input fields with `id="rows"` and `id="cols"`.
- The board is to be generated when the button with `id="button"` is clicked.
- There is a `div` with `id="board"` that holds the board. Initially, this `div` is empty and you need to populate it with black and white tiles (i.e., create one `div` for each tile and add them to the board `div`).
- The tiles are `divs` that need to be styled with CSS classes `"black"` or `"white"`. Additionally, the first tile within each row needs to have the `"startrow"` class. (These CSS classes are already created and take care of the correct displaying of the board.)
- You can assume that the input is valid, it does not need to be checked.
- The HTML and CSS parts are already created and these are read-only. You only need to write the JavaScript part. You can use JavaScript and/or jQuery.

Write JavaScript code here

Maximum marks: 8

14 jQuery



Animate the red square using jQuery. (6 points)




- Create a HTML page with a div colored in red and in 100x100 pixels size.
- Each time the div is clicked on, increase its size by 10pixels (both width and height) and move it to the right by 10 pixels.
 - Hint: you can move the div to the right by using relative positioning and increasing the value of the left property.
- For the full points on this exercise, the transition needs to be animated and take 500 milliseconds. See <http://api.jquery.com/animate/>

You need to provide the solution in a single HTML file, with CSS and JavaScript embedded. You also need to include jQuery in the head!

Write the contents of the HTML file here

Maximum marks: 6

15 **jQuery 2**



Selected animal:

```
<table>
  <tr>
    <td></td>
    <td></td>
    <td></td>
  </tr>
</table>
Selected animal: <input type="text" name="animal_name" id="animal_name" />
```

Write jQuery code that writes the name of the clicked animal into the input field. (4 points)

The name of the animal is contained in the alt attribute of the image. This is what you have to write in the input text field. You are not allowed to make changes to HTML source.

Write jQuery code here

Maximum marks: 4

16 **JS guess**

When a piece of JavaScript is to be used on every page of a website, the best place to put it is
Select an alternative:

- ☐ in a <script> element at the end of <body>
- ☐ in the onload attribute of <body>
- ☐ in a <script> element inside <head>
- ☐ in an external javascript file



Maximum marks: 2

17 **JS guess 2**

True or false: The following code is valid, and will create a function

```
var hello = function(name) { alert('hello, ' + name + '!'); }
```

Select an alternative:

- ☐ false
- ☐ true



Maximum marks: 2