Multimedia im Netz
(Online Multimedia)
Wintersemester 2014/15

Übung 11 (Hauptfach)
Today’s Agenda

• Announcements & miscellaneous
• Repetition
  – PHP
  – HTML5
  – jQuery
  – NodeJS
  – Multimedia Content
• Discussion of assignment 10
Announcements

• Next Week (26.01.2015): Q&A
  – Prepare questions & send them via email to tobias.stockinger@ifi.lmu.de
  – Discussion of the repetition sheet

• Repetition Sheet:
  – Not submitted to UniWorX → personal preparation
  – Do it on paper!
Exam (1)

• Exam Details:
  – Open Book: it’s okay to bring handwritten notes, printed slides, code and other resources (do not bring books)
  – You can bring a non-programmable calculator, but you are not going to need it.
  – Bring a valid student card and personal ID card!

• Registration for the Exam
  – 16.02.2015 14-16h, Rooms A140 & A240 (Main Building)
  – register until: 09.02.2015
  – de-register until: 13.02.2015
  – If you do not de-register, the attempt will be treated as “failed”
Exam (2)

• Possible topics:
  – Interactive web applications
  – digital rights
  – multimedia content description
  – streaming architectures

• Excluded:
  – Market trends, statistics, numerical data

• Distribution Lecture : Tutorial = roughly 40:60
Exemplary Solutions

• Some of you allowed us to publish your submissions on-line, thank you!
• These solutions are **one way of doing it**, not necessarily the perfect way.

• Find the solutions here:  
  http://www.medien.ifi.lmu.de/lehre/ws1415/mmn/uebung/loesungen/

• Password: communicated during the tutorial.
Repetition
<!DOCTYPE html>
<html>
<head><title>Counter</title></head>
<body>
<?php
    $counter = 0;
    $counter++;
?>
<form action="01_counter.php" method="get">
    <input type="submit" name="submit" value="count" />
</form>
<h3>Output</h3>
<?php
    echo $counter;
?>
PHP (2)

• What’s the problem with the code on the previous slide?

• Fix the code, so that the counter is incremented when the form is submitted

• Extend the code, so that the user can enter a number that is added to the counter
You get the following output in the JavaScript console:

```
Uncaught TypeError: Cannot read property 'length' of undefined
```

The responsible code block looks like this:

```javascript
for (var i = 0; i < data.bands.length; i++){
    console.log(data.bands[i]);
}
```

What’s the problem?
How do you solve it?
HTML5

• Name 3 elements that are ‘new’ in HTML5!
• Which document type is correct for HTML5:
  a)  <!DOCTYPE html>
  b)  <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 5.0//EN" "http://www.w3.org/TR/html5/strict.dtd">
  c)  <!DOCTYPE HTML5>
• onblur and onfocus are...
  a)  elements
  b)  event attributes
  c)  style attributes
• Which attribute of <script> is no longer required?
  rel | href | src | type
var x,y;
var canvas = document.getElementById('canv');
var context = canvas.getContext('2d');
var columns = 3, rows = 4, size = 20, offset = 5;

for(var i = 0; i < columns; i++){
    for(var j = 0; j < rows; j++){
        x = i * (size + offset), y = j * (size + offset);

        context.beginPath();
        context.fillStyle = i % 2 == 0 ? '#0000ff' : '#ff0000';

        context.strokeStyle = '#000000';
        context.lineWidth = "2";

        context.rect(x,y,size,size);
        context.stroke();
        context.fill();
    }
}
AJAX

- Describe what asynchronous communication means!
- How does it show in web apps?
- You wrote the following script:

```javascript
<script>
$.get('http://www.google.com',
  {q: 'test search'},
  function(data){
    console.log(data);
  }
);
</script>
```

How do you fix this problem:

```html
XMLHttpRequest cannot load http://www.google.com/?q=test+search. 04 ajaxProblem.html:1
No 'Access-Control-Allow-Origin' header is present on the requested resource. Origin 'http://localhost:63342' is therefore not allowed access.
```
NodeJS

• Name 5 significant differences between Apache+PHP and NodeJS!

• Explain the difference of „non-blocking I/O“ using PHP and NodeJS as examples!
You are asked to create a 3 minute video clip about thunderstorms for a television news magazine. The company you work for has a huge collection of video snippets.

- Explain how meta data comes into play now!
- The company uses a software tool that implements the MPEG-7 standard. Which meta data parts are standardized by MPEG-7?
- A colleague recommends searching the library by “segments”. What is a segment? Explain 3 subclasses of segments!
Watermarking

• Name 3 things that digital watermarks should „survive“?

• What does „imperceptible watermarking“ mean?

• Explain and discuss the following statement: Steganography aims for imperceptibility to human senses, digital watermarking tries to control the robustness as top priority. (Wikipedia)
eBooks

• ePub is just a container. What does it actually contain? What other e-book formats do you know?

• Explain how an e-Ink display works in your own words!

• A friend of yours needs to decide whether to buy an eBook-reader or a tablet PC. She mainly wants to read books. Explain the pro’s and con’s of each technology to her!
Off Topic: Tutors wanted!

• If you enjoyed this course and are excited about the topic, become a tutor!

• Responsibilities:
  – run tutorials (at least one)
  – help with corrections

• Feel free to contact us for further details 😊
  tobias.stockinger@ifi.lmu.de
Thanks!

What are your questions?