

# Multimedia im Netz (Online Multimedia)

Wintersemester 2014/15

Übung 04 (Hauptfach)



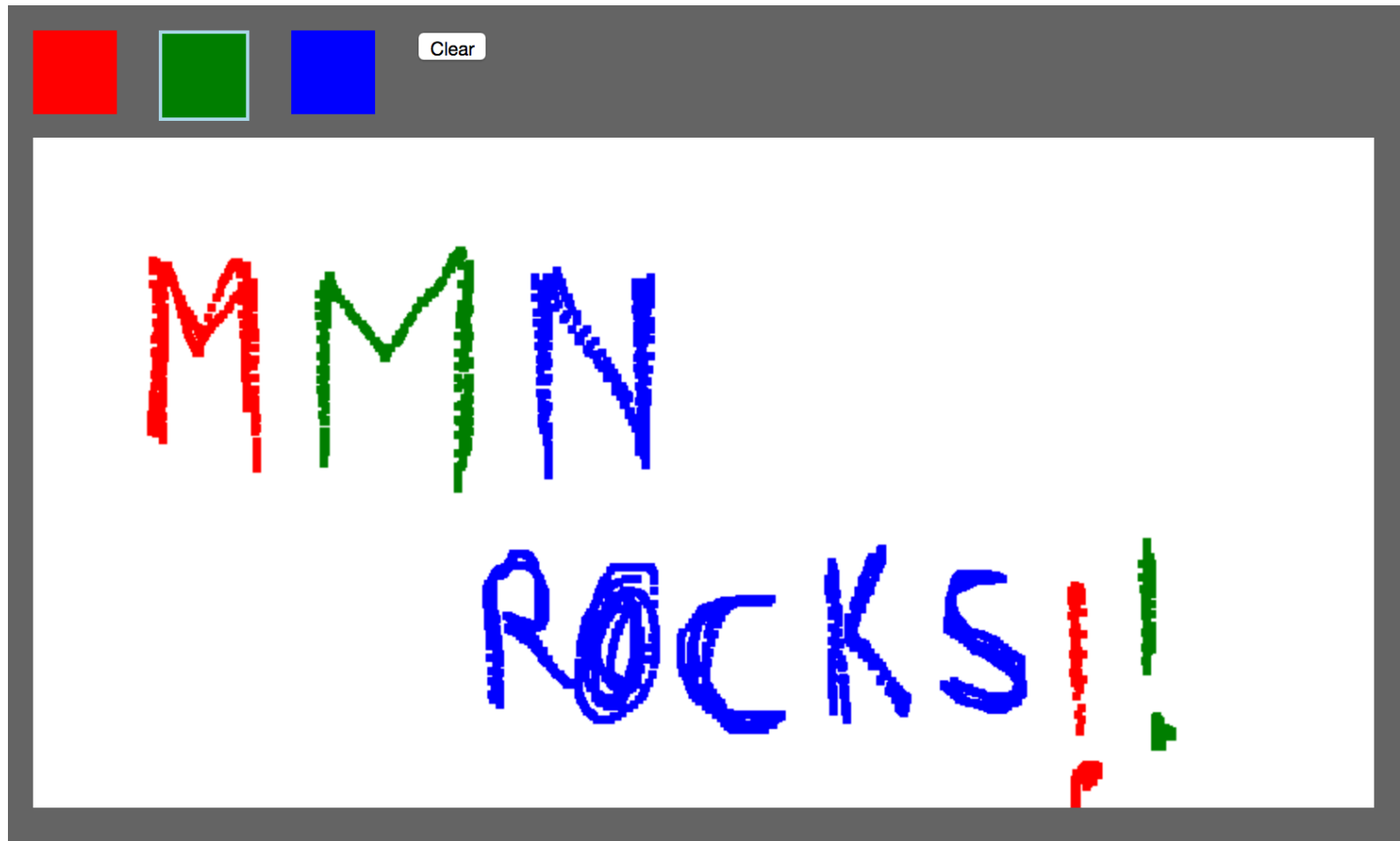
# Today's Agenda

- Flashback: 3<sup>rd</sup> Tutorial
- Drawing in the Browser – Code-a-Long
- HTML5 Advanced: Drag and Drop

# Flashback!

What do you remember  
from last week's tutorial?

# Drawing in the web browser

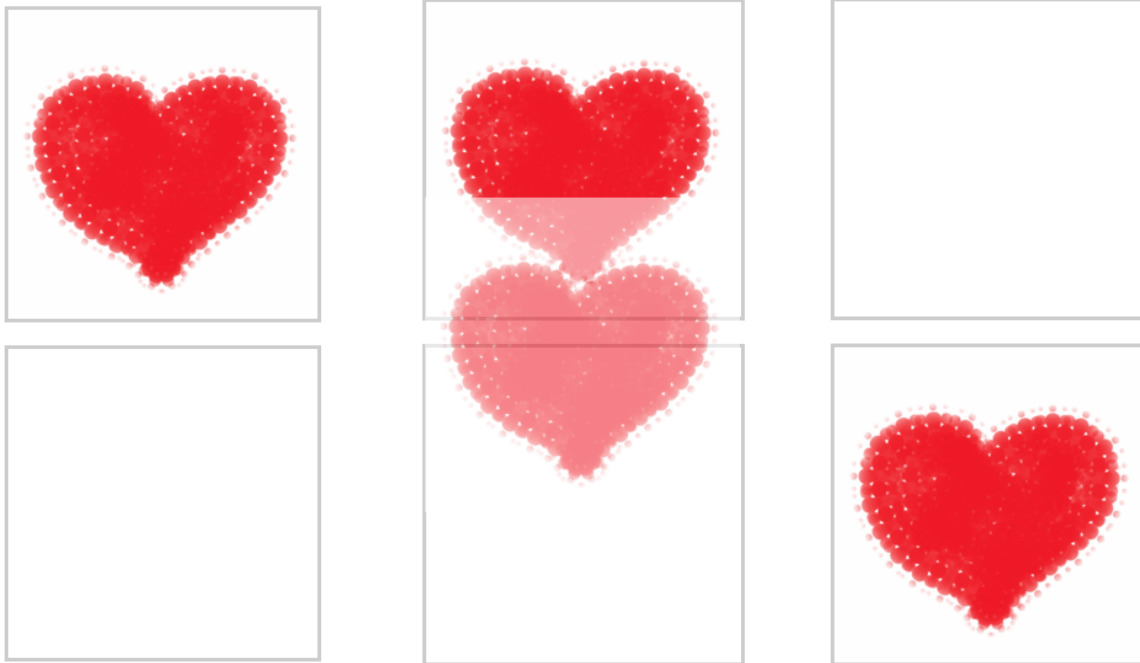


# HTML5

- HTML5 introduced a couple of new features:
  - New Elements:
    - `<canvas></canvas>`
    - `<audio></audio>`
    - `<video></video>`
    - ...
  - Form features (examples):
    - Wildcards
    - Validation
    - ...
  - **Drag and Drop**

# HTML5: Drag&Drop

- You can add „Drag&Drop“ functionalities to every element
- For example: an image (<img />)



# Most important attributes & functions

- **Attributes**
  - draggable
  - ondragstart
  - ondragover
  - ondrop
- **Functions**
  - preventDefault();
  - setData();
  - getData();
- **Event attributes**
  - Event.dataTransfer
  - Event.target

# Skeleton

```
<!DOCTYPE html>
<html lang="de">
<head><title>Herz</title>

<style type="text/css">
  .box {
    width:256px; height:256px;
    border:3px solid #cccccc;
  }
</style>

<script></script>
</head>

<body>
<div id="box1" class="box"></div>
<br/>
<div id="box2" class="box"></div>

</body>
</html>
```



# Attributes: draggable, ondragstart

```
...  
<body>  
<div id="box1" class="box">  
    
</div>  
  
<br/>  
  
<div id="box2" class="box">  
</div>  
</body>  
</html>
```

# setData()

```
...  
<script>  
  
    function drag(ev){  
        ev.dataTransfer.setData("Text",ev.target.id);  
    }  
  
</script>  
...
```

# Attributes: ondragover, ondrop

```
...  
<body>  
  
<div id="box1" class="box" ondrop="drop(event)"  
  ondragover="dragOver(event)">  
  
  
</div>  
<br/>  
<div id="box2" class="box" ondrop="drop(event)"  
  ondragover="dragOver(event)">  
</div>  
  
</body>  
</html>
```

# preventDefault() & getData()

```
...  
<script>  
    function drag(ev){  
        ev.dataTransfer.setData("Text",ev.target.id);  
    }  
  
    function dragOver(ev){  
        ev.preventDefault();  
    }  
  
    function drop(ev){  
        ev.preventDefault();  
  
        var data=ev.dataTransfer.getData("Text");  
        ev.target.appendChild(document.getElementById(data));  
    }  
</script>  
...
```

# Other helpful functions

- `document.createElement("div");`
  - creates an empty HTML element (object) of the given tag
  - not added to the DOM tree yet
- `div.appendChild(child);`
  - appends an element to another element
- `myElement.setAttribute("class", "clear");`
  - adds attributes to an element
  - very useful for CSS classes

**Fast forward**

**Write down  
1 thing  
that you have learned  
today.**

# Assignment 4

- **Topic: Drag&Drop Puzzle (JS, HTML5)**
- **Due in: 1 Week**
- **Due date: 10.11.2014**

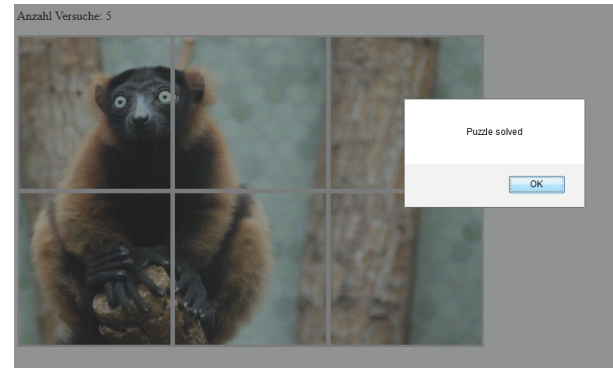
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Anzahl Versuche: 5



**Thanks!**  
**What are your questions?**