



# Interactive Multimedia

## Programming 4. Assignment set

Today we practice usage of html5 <canvas> element. Also read through these git tutorials and think if you would like to start using git to store your code files.

<https://try.github.io/>

<https://guides.github.com/activities/hello-world/>

### 1. Very simple draw application:

Create a simple drawing application using html5 canvas element and Javascript.

See these tutorials (or find your own way):

[https://developer.mozilla.org/en-US/docs/Web/API/Canvas\\_API/Tutorial/Basic\\_usage](https://developer.mozilla.org/en-US/docs/Web/API/Canvas_API/Tutorial/Basic_usage)

[https://developer.mozilla.org/en-US/docs/Web/API/Canvas\\_API/Tutorial/Drawing\\_shapes](https://developer.mozilla.org/en-US/docs/Web/API/Canvas_API/Tutorial/Drawing_shapes)

Handling mouse events:

<https://developer.apple.com/library/safari/documentation/AudioVideo/Conceptual/HTML-canvas-guide/AddingMouseandTouchControlstoCanvas/AddingMouseandTouchControlstoCanvas.html>

User should be able to draw lines with mouse presses. When mouse button is **pressed down**, **start point** of line is saved and, when mouse button is **released** line will be drawn between **start point (mouse down) and end point ( mouse up)**.

After you have done the simple version, could you make a version where guidance line will be drawn when mouse button is pressed down and user moves the mouse. Guidance line will be erased when user re-moves the mouse or releases the button (and permanent line will be drawn). See example from MS-Paint line draw.

Draw lines to draw area





## 2. Simple game:

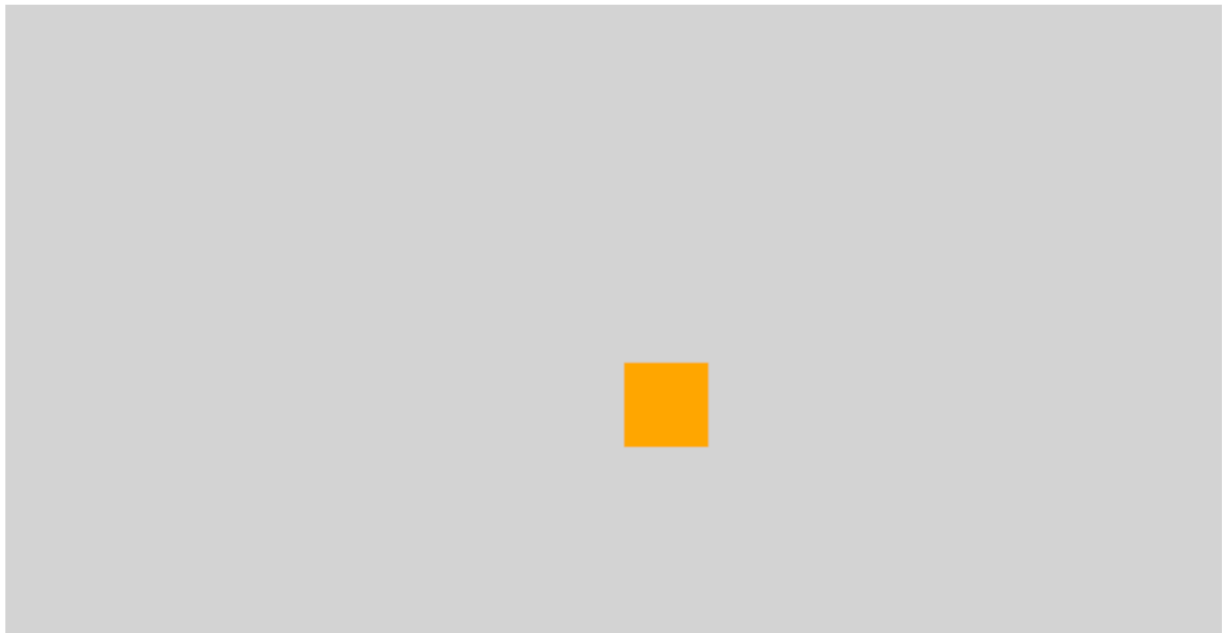
Create a simple speed game using html5 canvas and Javascript.

In the game player has 10 seconds of time to click (or touch) as many targets as possible. When player hits one target, another target's position is randomly generated.

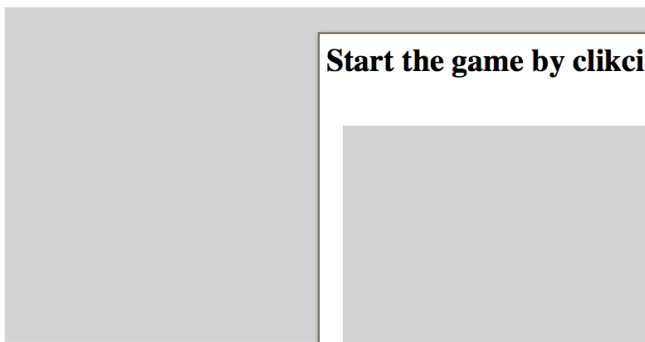
See this example (orange rectangles are targets).

If you have time (not mandatory) make game to work on mobiles also. Add different type of targets (Some are visible only for 0,5 seconds or reduce points if you click them).

**SCORE: 3 --- TIME LEFT: 3**



**GAME OVER, SCORE: 24**



**Start the game by clicking the canvas!**

