

Assignment 11: Graphics and animation using HTML5 Canvas

For this assignment, you can use the provided file `skeleton.html` (<http://www.idi.ntnu.no/~michailg/IT2805/skeleton.html>) as a starting point.

1. Canvas basics

Write JavaScript code to draw a red circle and a blue square inside a `<canvas>` element.

- As before, you can use `document.getElementById` to access the canvas element from your script.
- To draw to the canvas, you will need a graphics context object. You obtain it by calling `getContext('2d')` on the canvas element.

2. Using images

Building on the previous exercise, use JavaScript to load the image `doge.jpg` (<http://www.idi.ntnu.no/~michailg/IT2805/doge.jpg>) and draw it on the canvas.

- You can load images from a script by instantiating a new `Image` object and setting its `src` property.
- Loading images takes time, especially on the web. Register a listener for image's `load` event to ensure that you're not trying to draw it before it's loaded.

3. Animation

Make the image from the previous exercise move in a circle.

- Use `setInterval` to register a function to be called at least 20 times per second. Drawing frames more often results in a smoother animation at the cost of more computation.
- Within this function, calculate the new position of the image and re-draw the canvas. Make sure to clear it first!

Submission

Submission can be posted in your course page under an appropriate sub-page (e.g., assignment-11) and also has to be uploaded as a zip file into It's Learning before the deadline.