

# Web Engineering Lab Assignment

## Java Script II (Handling Events)

**Exercise 1.** Write a page that displays a balloon (using the balloon emoji, 🎈). When you press the up arrow, it should inflate (grow) 10 percent, and when you press the down arrow, it should deflate (shrink) 10 percent. You can control the size of text (emoji are text) by setting the font-size CSS property (style.fontSize) on its parent element. Remember to include a unit in the value—for example, pixels (10px). The key names of the arrow keys are "ArrowUp" and "ArrowDown". Make sure the keys change only the balloon, without scrolling the page.

When that works, add a feature where, if you blow up the balloon past a certain size, it explodes. In this case, exploding means that it is replaced with an 💣 emoji, and the event handler is removed (so that you can't inflate or deflate the explosion).

*Note: For imoji you can use any picture available.*

**Exercise 2: (Mouse trail)** In JavaScript's early days, which was the high time of gaudy home pages with lots of animated images, people came up with some truly inspiring ways to use the language. One of these was the *mouse trail*—a series of elements that would follow the mouse pointer as you moved it across the page. In this exercise, I want you to implement a mouse trail. Use absolutely positioned <div> elements with a fixed size and background color. Create a bunch of such elements and, when the mouse moves, display them in the wake of the mouse pointer.

There are various possible approaches here. You can make your solution as simple or as complex as you want. A simple solution to start with is to keep a fixed number of trail elements and cycle through them, moving the next one to the mouse's current position every time a "mousemove" event occurs.

**Exercise3:** Write a java script to animate the objects. In that create two dropdown lists, one used to select the object shape and another one to choose the direction of the object. Create one slider to control the time delay (moving speed of the shape), and one animate button to execute the script. see the given figure. When the user will press the animate button, the chosen object should be moved according to the specific direction and speed.

