

Practical

The purpose of this test is to allow us to evaluate your abilities as a professional software engineer in context of the requirements for Radivision. Spend no more than 1 hour on the following. Prioritize the questions to ensure that you complete as much as possible in the hour whilst highlighting your best skills.

(1) Using either Javascript, Typescript or pseudo-code, write code to reverse the word order of a sentence; for example, *Mary had a little lamb*.

- a. Spaces may be prepended to, or appended after, the sentence. Spaces must not be truncated or removed.
- b. The number of spaces between words may vary and must not be truncated or removed.
- c. Using Javascript, Typescript or pseudo-code write code to test the results.

(2) Create, using either CSS or Sass,

- a. a style for a circular control which
 - (i) Is a circle within a circle
 - (ii) On mouse-over - each circle changing to different colors.
 - 1) Mouse over outer circle
 - a) Outer circle changes to green.
 - b) Inner circle does not change
 - 2) Mouse over inner circle
 - a) Outer circle changes to yellow.
 - b) Inner circle changes to red.
 - c) Cursor changes to pointer.
 - (iii) On click
 - 1) Mouse over outer circle
 - a) No change
 - 2) Mouse over inner circle
 - a) Inner circle changes color
 - b) Inner circle appears depressed or raised - your choice.
 - (iv) Is greyed out when not in focus.
- b. Create some HTML that displays your control together with a button.

- (i) When the button is clicked the control bounces or rotates or flips or some combination of these effects - your choice. Use CSS animation to do this.
- (3) List 5 ways of optimizing website load speed.
- (4) A customer would like to create a new website called *Flix.com*, which is similar to the [netflix.com](https://www.netflix.com) website.
 - a. List 5 user stories (use cases) for the website, each with a short description.
 - b. List 5 features of the website.
 - (i) For each feature list up to 5 tasks which you would need to complete in order to deliver the feature
 - (ii) Estimate, with justification, the time required for each task.
 - c. Create a **simple** visual design for the website - it's your chance to design the Netflix front page. We are not looking for too much detail here.

Please don't hesitate to contact us if you have any questions.