Coding in CSS with Intel and CoderDojo

A guide to delivery

Introduction

This project is the second of three that have been produced to help you, and your students, master coding in HTML5, CSS and JavaScript. Each project is presented as a challenge – Intel and CoderDojo have provided code for a Piano App that has bugs in it. The task is to fix the bugs and turn the app into a game.

By the end of this second module, students will have sufficient knowledge of CSS to fix the second of the bugs. The first bug was fixed at the end of the first project in the series, which focuses on HTML5. In the third project, students learn JavaScript and add a scoring feature to turn the app into a game.

We have produced an e-learning module that has a set of video tutorials provided by Intel's Steve Cutler that demonstrate how to master the syntax for CSS, using new and already encountered HTML tags, classes and attributes.

By the end of the e-learning module, students will have learned enough CSS to style a webpage with differently formatted text, images with borders and padding, with use of the float attribute to make the text and images display effectively together. They will also have the skills to fix the second bug in the Piano App code, which is available for download from the website.

Earning Open Badges for work on this project

The Tech Partnership Badge Academy is directly aligned to the TechFuture Classroom. You can find the Badge Academy by clicking on the Badges link at the top of the Learning Hub window.

Within each TechFuture Classroom project, there are between 2 and 6 badges available for students to earn for the work they complete within the projects. In this HTML5 project, there are three available badges:

CSS Coder – students receive this badge for working through the e-learning module and reaching the end. This badge is automatically verified [1]– the platform recognises when the student has completed the module.

CSS Debugging – students receive this badge for working through the associated e-learning module (CSS Debugging Open Badge) and achieving a pass mark. This badge is automatically verified.

Webpage Styling – students receive this badge for styling a webpage. This badge is awarded when teachers verify completion of this task. If you wish your students to attempt this badge, we will provide you with the code the student needs to insert into the platform to gain the badge. **Email sue@thetechpartnership.com to receive the code**. *Note, this code is changed monthly*

---

[1] Badges with a red icon are verified automatically by the platform for completion of e-learning.

Brought to you by

to ensure students are not sharing the code between them! The criteria that students need to meet to gain this badge are shown at the end of this document.

Resources provided

On the course page, there is a bank of resources underneath the e-learning modules that scroll using the arrows at each end of the row.

You are provided with the following resources:

> The e-learning module which students can work through individually in the classroom or at home

> Placeholder text for students to use on the activities

> Downloadable code for the Piano App

> A guide to downloading and using the code

> A video by Steve Cutler showing students how to fix the problem in the Piano App code

> Student Log in both MS Word and PDF versions

> Guide to starting to use CSS

> Guide to using colours in CSS

> Copyright free images for students to use

Steps in the e-learning content

The following table shows the steps in the e-learning and the CSS syntax introduced. Students have a section in the Student Log where they can add information about each tag as a reference.

Steps in the e-learning content	Resources
Understanding attributes: classes and id tags	Guide to applying CSS to class and id attributes
Using styles to change the colour of text on a web page	Placeholder text
Using HTML5 attributes (class and id tags) to make different sections of text on a web page different colours	Guide to using colours in CSS
Styling text with CSS, changing the font size, type, colour and alignment	
Styling the sizes of elements (images), using absolute position	Copyright free images
Styling the margins, border and padding with CSS	
Mixing elements – text and images – with CSS using the float attribute	
Bringing HTML5 and CSS together, creating a web page from scratch	
Applying CSS to the whole website by linking style sheets	

Timings for delivery

TechFuture Classroom projects are built for flexibility and different ways of use.

Students can work through the e-learning, with Notepad++ open, completing each coding activity and taking the required screenshots and adding them to the Student Log as they progress. It is likely that this method of delivery will take a minimum of three (50 minute) lessons for completion, including some homework tasks.

Students could also work through the e-learning without building the code, just gaining knowledge of the way CSS works, and how to use the syntax to apply styles to a webpage, without using Notepad++. Whilst we do not recommend this way of delivery, it would reduce significantly the time needed for this project to be completed. Students could complete the e-learning this way in one lesson, with homework. They would also be able to gain the **CSS Coder badge**.

Fixing the code (and to earn the **CSS Debugging badge**) would take another lesson.

For keen students, they can style their own website (and earn the Website Styling badge) which could be a homework task or project. You would be required to verify their completed website against the criteria below to award this badge, giving successful students the code to upload to the platform to gain the badge.

Note, for individual award of badges, students must be logged into their own account.

Flipped classroom delivery

It is possible to use TechFuture Classroom projects for flipped classroom delivery. When students have their login details, they can access the platform at any time from home and school. Students could complete the e-learning at home, and apply their new knowledge of CSS syntax in the classroom. All that would be required in class would be Notepad++ to build the code.

Criteria for the Website Stylist Badge

To gain the Website Stylist Badge, you will have seen a student use CSS code to apply styles to a webpage that has all of the following features:

1   Paragraphs of text that have different colour font through use of class and id tags

2   Text that demonstrates centred, left aligned and justified formatting

3   Images that have borders, padding and a margin

4   Text that surrounds images using the float attribute

When a student completes this task and you are happy with the quality of work, you can issue the code for the student to enter into the platform for badge awarding.

If you have questions or queries about this project, contact learning@thetechpartnership.com and we will do our best to respond within 48 hours.