



A STEAM project for Empathy, Resilience and Creativity

APP DEVELOPMENT

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Summary

This seminar will cover the basics of Application Development projects. Students will learn how to design and develop an application for various scenarios and devices. Additionally, the seminar will cover some of the latest developments in APP Development, and how these technologies are being used in various fields and commonly used products. This seminar is perfect for students who are interested in pursuing careers in programming, code development, UI/UX design or related fields.

Key elements

Key elements	<i>Coding / Platforms / Systems / Software / Design / Development / UI/UX / HTML / CSS / Javascript</i>
Subject	<i>Application Development</i>
Topic	<i>Progressive Web App (PWA) Development</i>
Age of students	<i>12 - 17</i>
Preparation time	<i>10 hours</i>
Teaching time	<i>4 – 6 hours</i>
Online teaching material	
Offline teaching material	
Resources used	<i>Replit Online IDE</i>

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Trends

Smartphones / Applications / Portability / Adaptability / Responsive Development & Design

21st century skills

Creativity, Critical thinking, collaboration and communication, Information and Communication Technologies literacy

Lesson Plan

Name of activity	Procedure	Time
Introduction to Application Development Progressive Web App Basics	Using the .pptx material guide your class through the basic meanings of App Development theory and procedure. 1. Connect those concepts with familiar notions of everyday life (eg. apps we all use in our day to day habits). 2. Make a reference of the programming languages and technology basics, such as HTML, CSS, JS etc. Emphasise on the necessity of HTML, CSS, Javascript and their differences.	1.30h our
Development Environment Demonstration	Familiarise your class with the developing software you are about to use. Indicatively https://replit.com/ (free online use)	45min
Development & Design	Proceed to writing the code step by step. You can use a project by: https://replit.com/ , https://www.cssacademy.com/ , https://www.w3schools.com/	1hour

Assessment

Here we include as an example the image of a rubric teachers can use to assess their students:

Students' and teachers' feedback after the implementation of the Learning Scenario during the Pilot phase of the project

Student feedback

Teacher's remarks

About STEAM EmbRaCe project

This Learning Scenario has been created in the framework of the STEAM EmbRaCe project.

Annex 1

Annex 2