

## Lesson plan

**Subject:** Programming Applications for mobile devices.

**Competences:** to use web tools and web-based environments for studying, and everyday life learning.

**Age group :** 15-17

**Duration :** 2x45 minutes

### *Introduction*

This is a lesson plan about programming for mobile devices. After this lesson plan students will be able to programming simple applications for mobile devices (tables, mobile phones). We will use App Inventor to create applications. App Inventor is a visual programming environment with blocks like Scratch.

### *Learning Objectives*

- Explore the environment of App Inventor
- Learn the mechanics of using App Inventor to build apps.
- Learn how to design an app's user interface with the App Inventor Designer, and its behavior with the Blocks Editor.
- Understand that an app's behavior consists of event handlers-- blocks that specify how an app responds to each event.
- Understand that an app can make decisions using a conditional (if) block.
- Understand that a component has a set of properties and that a property is a memory cell that can be changed to modify how a component looks and behaves.
- Learn how to test an app, how to deploy it to a device, and how to publish it on a portfolio and the App Inventor Gallery.

### *Methodology*

- ✓ Content-peer teaching/learning
- ✓ Workshop on practical use of tool
- ✓ Creative and collaboration work

## **Expected results**

- Improve skills to use e-learning platforms (App Inventor)
- Explore mobile computing
- Knowledge and experience gained in the field of e-learning
- Students involvement in their own development (Create a simple project using App Inventor)
- Software is in every walk of life. Programming is becoming part of many jobs.
- Motivation to use their digital skills effectively and meaningfully (Test the project to a mobile device)
- Practical Skills -- web, math, media
- Creativity, entrepreneurship, idea formulation
- Problem-Solving skills

## **Process**

### **Section1**

Demonstrate the app *“Laughbag”* to the students. Create the project *“Lightbulb”*.

### **Section2**

Create the project *“Two Buttons”* (design and coding). Test the project on a mobile device.

### **Section3**

Create the project *“Hello Purr for App Inventor 2”*. Test the project on a mobile device. Export the project to the computer.

### **Section4**

Create the project *“Together to improve our future”*. Test the project on a mobile device. Export the project to the computer.

## **Evaluation**

Solve the crossword (Learning Apps)

Self-assessment (Multiply-Choice quiz)

Play a game (Kahoot)

## **Homework – Feedback**

Look further for applications in intermediate level. Create the project *“Get the Gold for App Inventor 2.”*