



#### **C4 Spain GBPE Mobility**

GBPE Erasmus+ project . 2019-1-CZ01-KA229-061282-1 " Girls & Boys are Programming in Europe " girlsboysprogramming.eu

#### V2 Spain UIPEC Virtual Mobility

UIPEC Erasmus+ Project 2019-1-ES01-KA219-065673 "Using ITC to Preserve European Crafts" eucrafts.eu



# App Inventor Mobile Programming Workshop

Imparted By Prof. Alfonso Ballesteros (IES Playamar)







## Context

This workshop is made as one of the ICT formation actitivities part of the C4 Spain GBPE Mobility of the GBPE "Girls & Boys are Programming in Europe" Erasmus+ project . 2019-1-CZ01-KA229-061282-1 Erasmus +". This activity will be also considered as part of a synergy activity for a Virtual Mobility of the UIPEC Erasmus+ Project 2019-1-ES01-KA219-065673 "Using ITC to Preserve European Crafts". This Workshop has been imparted By **Alfonso Ballesteros from IES Playamar.** 

#### What's App Inventor?

MIT App Inventor is a software development environment currently maintained by the Massachusetts Institute of Technology (MIT) for the development of applications for the Android operating system. The user can, visually and from a set of basic tools, link a series of blocks to create the application.

How does Work App Inventor? The enviroment have 4 basic Concepts :

#### Properties User Interface 9:48 🖬 🗐 Screen1 Button (?) AboutScreen CheckBox ? DatePicker ? AccentColor Default • Image (?) AlignHorizontal A Label (?) Left: 1 \* E ListPicker ? AlignVertical Top:1 . ListView ? AppName $\wedge$ Notifier (?) PasswordTextBox \*\* ? BackgroundColor Default Slider (?) BackgroundImage $\triangleleft$ 0 ? Spinner None. Switch ? BigDefaultText •

# Screens contains visual elements with Properties

These components interacts with Block Codes in the coding screen

	Projects	Connect *	Build Se	ettings Help	My Projects	View Trash	Guide	Report an Issue	English *	palfonsoballesteros@iesplayamar.es *
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#### Let's Make some examples.

We will programe it on the web and probe the app with our Meobile phones

#### 0º Entering the web

1. Google "appinventor" or press <u>https://appinventor.mit.edu/</u> and press Create Appsi



2. Login with you google account

#### 1º first App – " Import an proyect"

Enter this link http://girlsboysprogramming.eu/app-inventor-mobile-programming-workshop/ and get the first aia file



#### Then you have to import it

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#### We are going to prove it on your mobile phone press in build > Android App

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Search Components		Dianlasshidda								

Then appears a QR image that you will have to scan with your mobile phone.



You will have to autorize your phone to accept this app :

- When we download an .apk file, The android will warn us that the process is blocked.
- At the bottom of the screen we will see a notice indicating that "applications from unknown sources cannot be installed" and invites us to enter the "Settings".
- Within the application we look for the "Install unknown applications" section and activate the box.

Probe the App in your mobile phone





#### 2º Second App – "Modifying with your name"

1. Open the last proyect and go to Blocks



2. Clic on the Super programmer block and put your NAME

	Projects Connect	Build Settings * *	Help My * Projects	View Guide	Report an Eng Issue •	lish palfonsoballesteros@iesplayamar.es *
AyFirstApp	Screen1 • Add Screen	Remove Screen P	Publish to Gallery			Designer Blocks
Blocks	Viewer					
<ul> <li>Built-in</li> <li>Control</li> <li>Logic</li> <li>Math</li> <li>Text</li> <li>Lists</li> <li>Dictionaries</li> <li>Colors</li> <li>Variables</li> <li>Procedures</li> <li>Screen1</li> <li>Image1</li> <li>Abel1</li> </ul>	when Button2 • do set Label1 set Image1 when Button1 • do set Label1 set Image when Button3 • do set Label1 A set Image set Image when Button3 • do set Label1 A set Image	Click  Cl	I love yoooooouuu     heart.jpg     Super Programm     C3-spain-appin     Bye ;;;     to    bye.jpg *     to    true *	er Your name iii ventor.jpg		<ul> <li></li></ul>

3. Repeat the proccess of the first app and probe it with your name ... now you can show your Friends that you are a **REAL PROGRAMMER :)** 





#### 3º App – "One app from scrach"

#### Press in Start new proyect

		Projects	Connect	Build	Settings *	Help •	My Projects	View Trash	Guide	Report an Issue	English *	palfonsoballesteros *	@iesplayan	nar.es
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#### Clic on the proyect in the screen

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#### Drag a button and a label to the screen



Hello	Vorld		Screen1 *	Add Screen	Remove Screen	Publish to Gallery
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#### Go to Blocks

HelloWorld	Screen1 • Add Scree	n Remove Screen	Publish to Gallery	Publish to Gallery						
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Search Components	Display hid	den components in V	ïewer	😑 🔲 Screen1	Label1					
User Interface	Phone size	(505,320) 🗸		Button1	backgroundColor					

#### Press on Button1 and drag the block code when click

HelloWorld	Screen1 • Add Screen Remove Screen Publish to Gallery
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Text	do <b>California</b> de la california de la c
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#### Press on Label1 and drag the block code set text

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Text	
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Procedures	set Label1 v . Visible v to
😑 🔲 Screen1	Show Warnings
Button1	Label1 . Width
A Label1	

#### Press on **Text** and drag the block code "" to the set code

Screen1 • Add Screen ... Remove Screen Publish to Gallery

HelloWorld	Screen1 •	Add Screen	Remove Screen	Publish to Gallery	
Blocks	Viewer				
Built-in Control Logic Math Toxt	e Car	A text string.			when Button1 . Click do x set Label1
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Repeat the proccess of the first app and probe it with your name ... now you can show your Friends that you are a

### TRUE REAL PROGRAMMER :D :DD



Connect with me in Etwinning for more ITC workshops "Alfonso Ballesteros" In Twitter on the web <u>@DTSE\_Erasmus</u>







Build your project on your computer Test it live on your device