江西理工大学 信息工程学院
JIANGXI UNIVERSITY OF SCIENCE AND TECHNOLOGY SCHOOL OF INFORMATION ENGINEERING

Mobile application development

移动应用开发

Lecture 02:

Getting Started With APP Inventor

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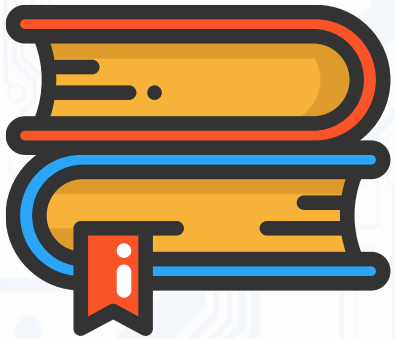


Mobile application development

移动应用开发

LECTURE 02: Getting Started With APP Inventor

APP inventor Advantage

- Under web software for Mobile application development
- No need for installation and have the heavy /complex file
- Cover the multi OS system (IOS and Android)
- Independent of coding language

Installing App Inventor Setup for Windows

Installing the Windows software for App Inventor Setup has two parts :

- **Part1:** Installing the App Inventor Setup software package. This step is the same for all Android devices, and the same for Windows XP, Vista, and 7,10.

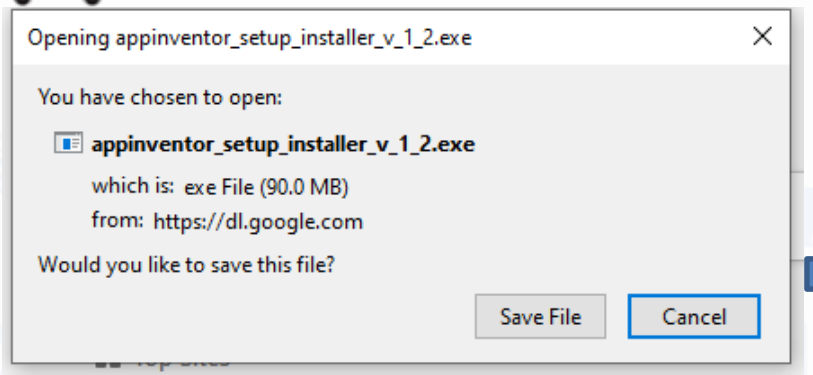
- **Part2:** If it choose to use the USB cable , it need to install Windows drivers for the Android phone. This is not necessary if it choose to use WiFi .

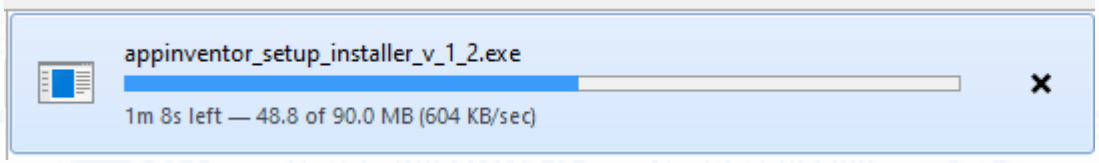
Installing the App Inventor Setup software package

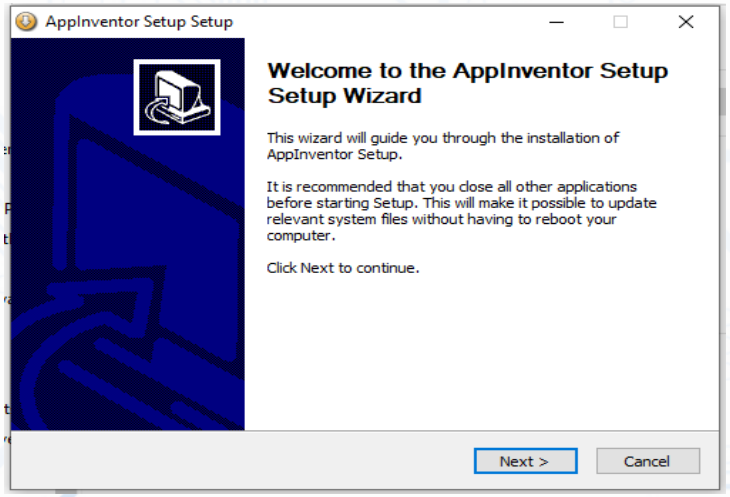
- its recommend the installation process from an account that has administrator privileges. This will install the software for all users of the your computer .
- If it does not have administrator privileges, the installation should still work, but App Inventor will be usable only from the user account someone used when someone installed.

Step1:	Download the installer: http://dl.google.com/dl/appinventor/installers/windows/appinventor_setup_installer_v_1_2.exe
Step2:	Locate the file AppInventor_Setup_Installer_v_1_2.exe (~92 MB) in the Downloads file or the Desktop. The location of the download on the computer depends on how the browser is configured.
Step3:	Open the file which has download .
Step4:	Click through the steps of the installer. Do not change the installation location but record the installation directory, because it might need it to check the driver. The directory will differ depending on the version of Windows and whether or not logging in as an administrator.

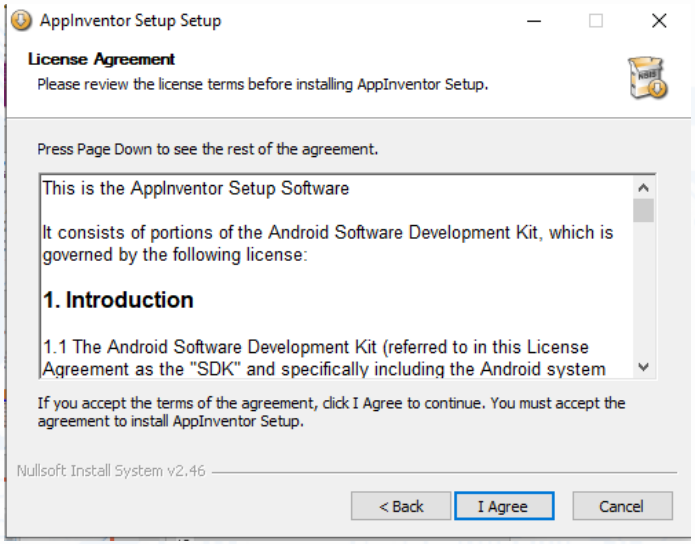
How install the installer

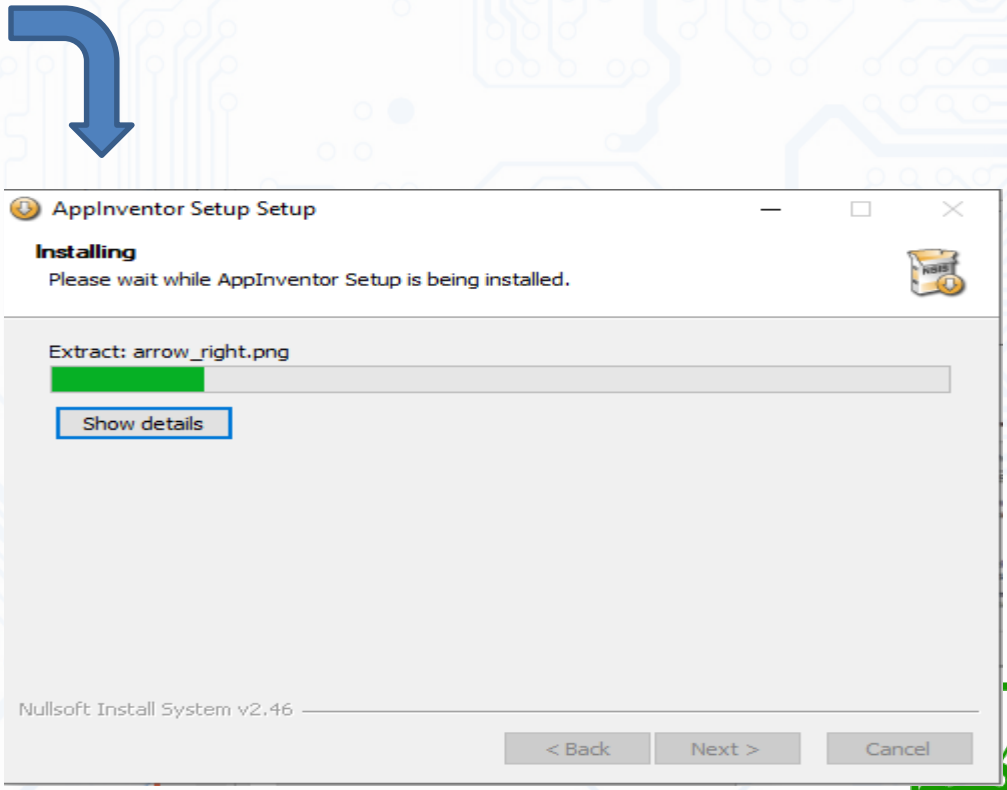






How install the installer





Chinese version &AI Version:

- The Chinese version of App inventor called WxBit is developed by Professor Yang Daoquan of South China University of Technology based on MIT App Inventor Open Source Project. It runs independently and provides free services for everyone.
- Servers and networks are supported by Guangdong Provincial Key Laboratory of Computer Networks, and have nothing to do with other institutions and individuals outside the school.
- App Inventor 2 is also abbreviated as ai, in order to distinguish it from Artificial Intelligence.

Chinese version &AI Version:

- AI is a visual Android application production platform. Users use browsers to open the AI platform website (App Inventor 2 WxBit Chinese version, abbreviated as WxBit version), which provides Gaud Map, Gaud Location, Baidu Voice Synthesis and Recognition, FTP Client and other components, and supports multi-touch, dynamic creation of components and common events.

- If the user has scratch experience, AI has no obstacles at all.
- AI and scratch both use block to implement building block drag programming.

- AI Partner, a real-time debugging tool provided by AI platform, can connect and debug Android applications in real time through AI connection codes after installation of mobile phones or Android simulators.
- Welcome to https://app.wxbit.com/login/?www to see the more detail.

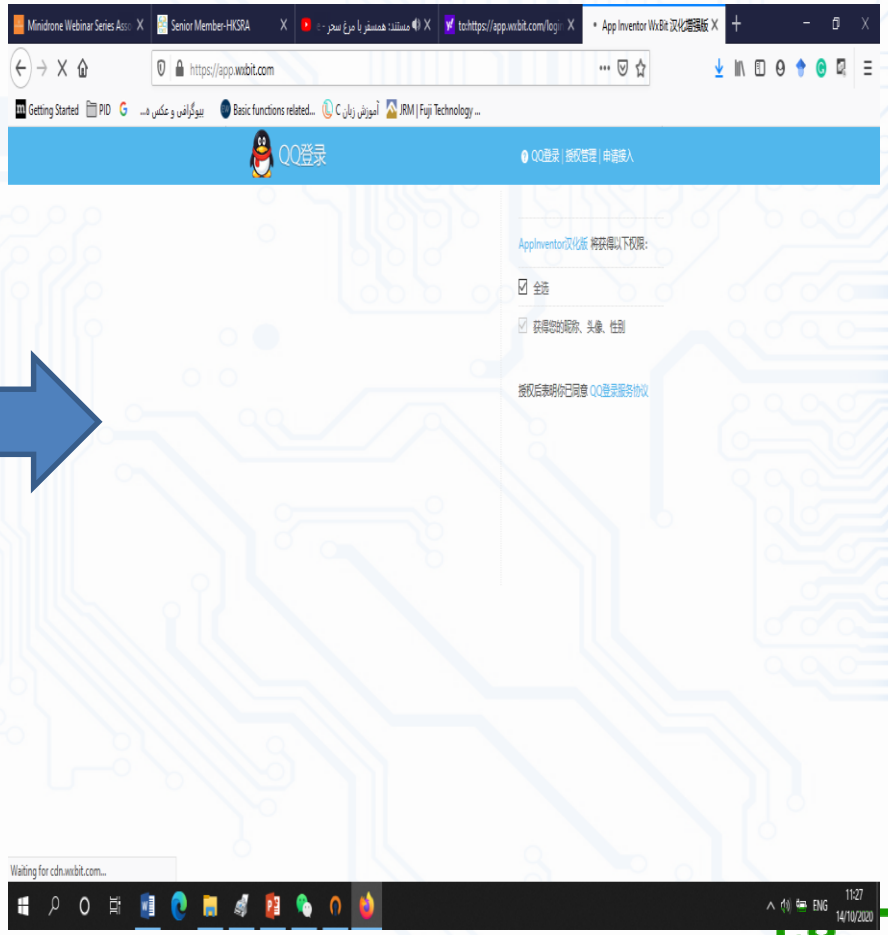
Start in the web

- The MIT provide a web server for enter the environment of App Inventor , and it with the same UI as the software .
- What need to just to get the web and enter the account.
- The user can access the web by: https://appinventor.mit.edu/and for Chinese , it is better to go to:https://app.wxbit.com/login/?www

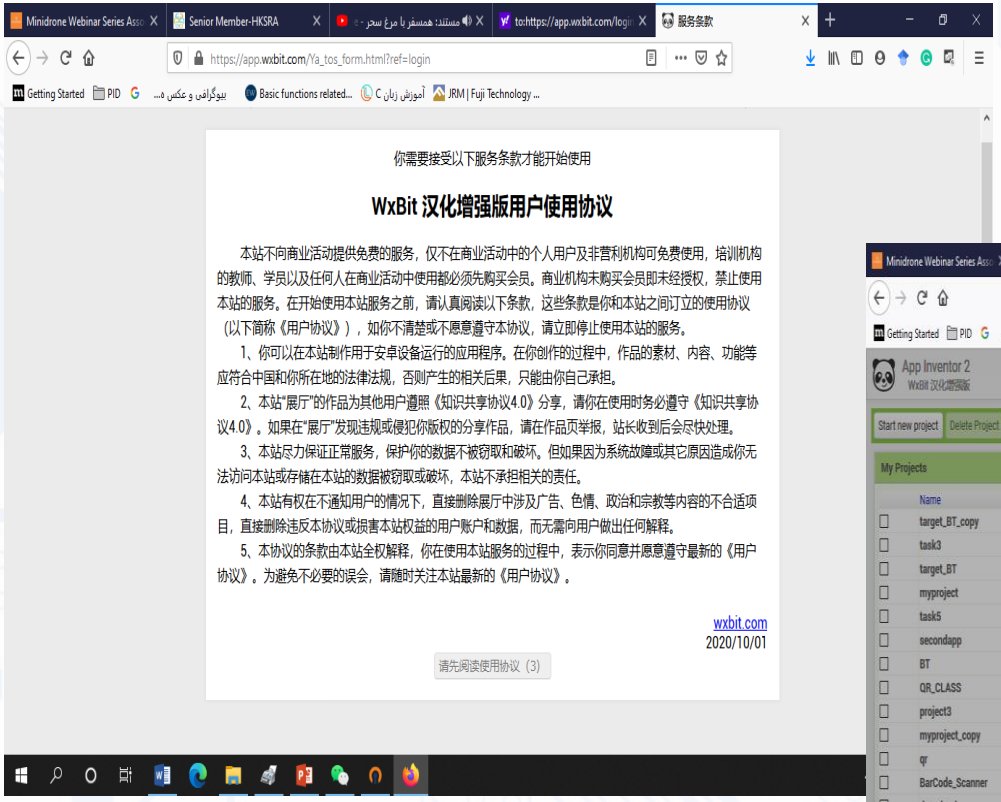
Start in the web

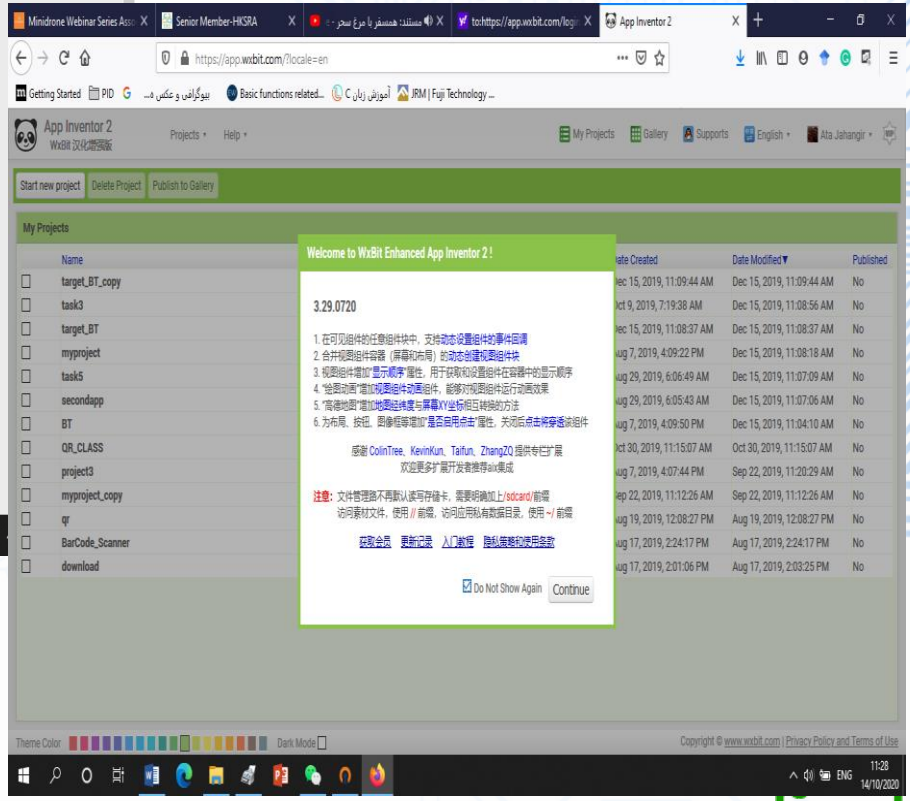
- **https://app.wxbit.com/login/**

Start in the web



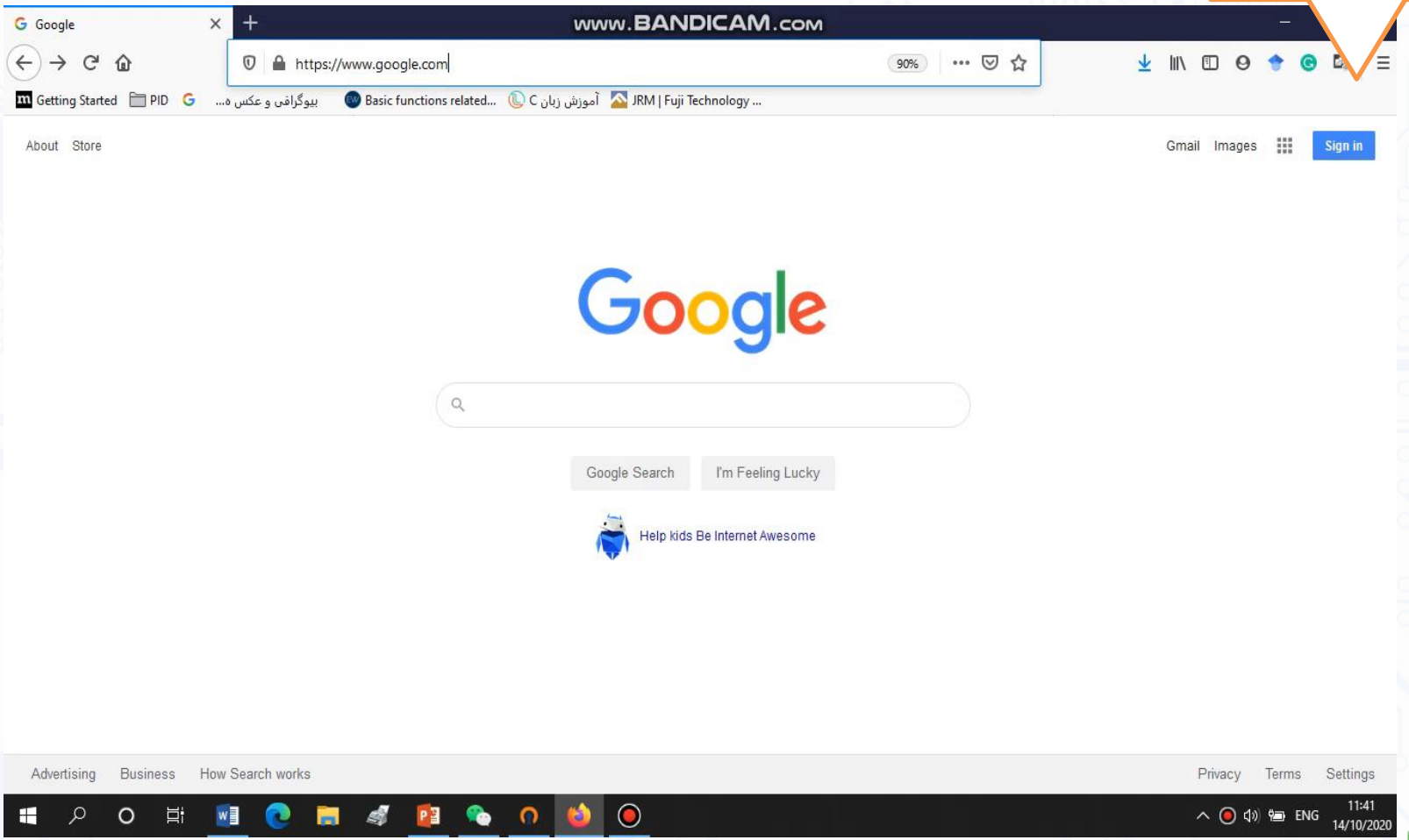
Start in the web



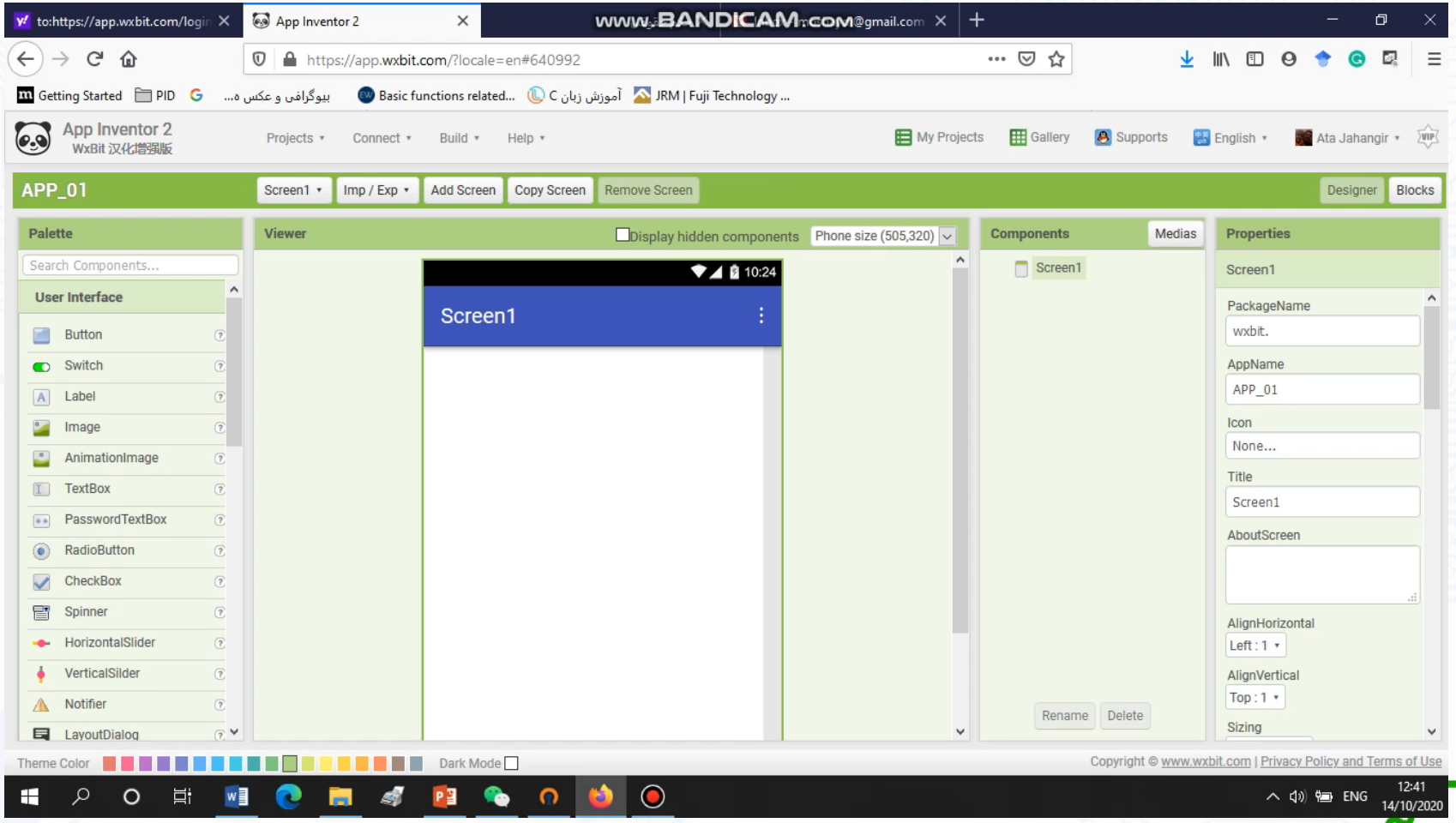


APP inventor running on web

Let us see



#Demo


App Inventor 2
WxBit 汉化增强版
Projects
Connect
Build
Help
My Projects
Gallery
Supports
English
Ata Jahangir
APP_01
Screen1
Imp / Exp
Add Screen
Copy Screen
Remove Screen
Designer
Blocks
Palette
Search Components...
User Interface
Button
Switch
Label
Image
AnimationImage
TextBox
PasswordTextBox
RadioButton
CheckBox
Spinner
HorizontalSlider
VerticalSilder
Notifier
LayoutDialog
Viewer
Display hidden components
Phone size (505,320)
10:24
Screen1
Components
Medias
Screen1
Rename
Delete
Properties
Screen1
PackageName
wxbit.
AppName
APP_01
Icon
None...
Title
Screen1
AboutScreen
AlignHorizontal
Left : 1
AlignVertical
Top : 1
Sizing
Theme Color
Dark Mode
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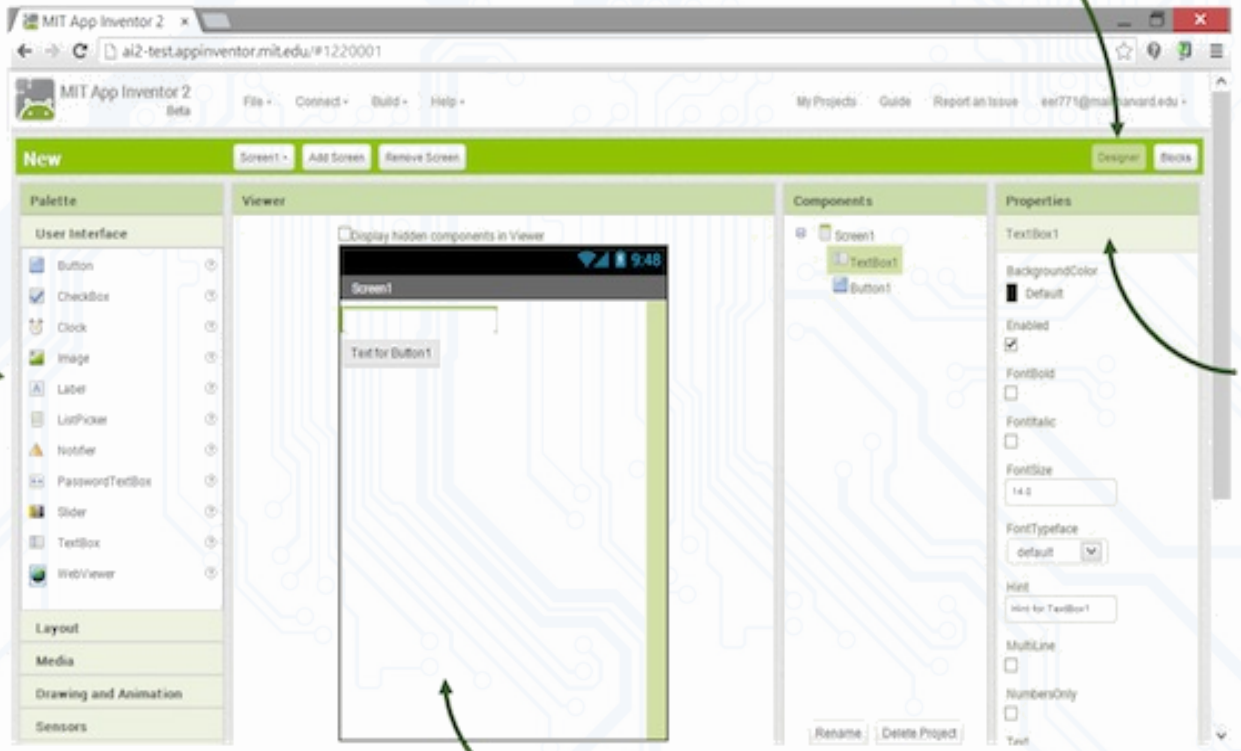
MIT APP sections

Palette: Find your components and drag them to the Viewer to add them to your app.

Designer Button: Click from any tab to go to the Designer tab.



Properties: Select a Component in the Components List to change its properties (color, size, behavior) here.

Viewer: Drag components from the Palette to the Viewer to see what your app will look like.

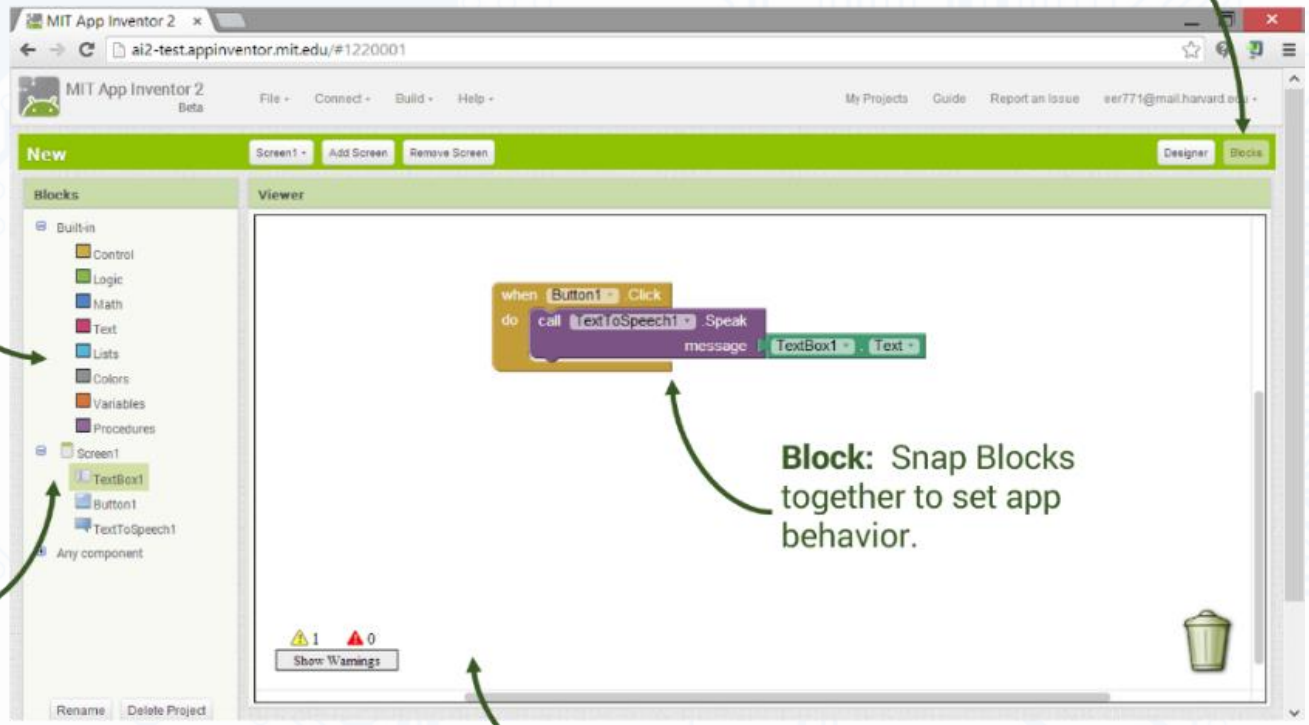
MIT APP sections

Logo	Tools	Function
User Interface	***User interface***	To add some tools, like button
Layout	***Layout***	To arrange the app space and editor the style of the UI.
Media	***Media***	Achieve the videos and voice for APP
Sensors	***Sensors***	With some sensor to control, like NearField
Drawing and Animation	***Drawing and Animation***	A tool to build a space for drawing and animation.
Storage	***Storage***	For data storage, as file, TinyDB and so on.
Connectivity	***Connectivity***	For build the connect with Bluetooth, HttpClient …
Aritificial Intelligence	***Aritificial Intelligence***	The AI tools. It contains TF, Baidu Speech.
Gaode Maps	***Gaode Maps***	Provide the API for Gaode Maps.
Enhancement	***Enhancement***	The Tencent X5 webview.
Social	***Social***	For calling function, EmailPicker and Sharing.
Extension	***Extension***	Add the extension.

App Inventor Blocks Editor

Built-In Drawers: Find Blocks for general behaviors you may want to add to your app and drag them to the Blocks Viewer.

Blocks Button: Click from any tab to go to the Blocks tab.

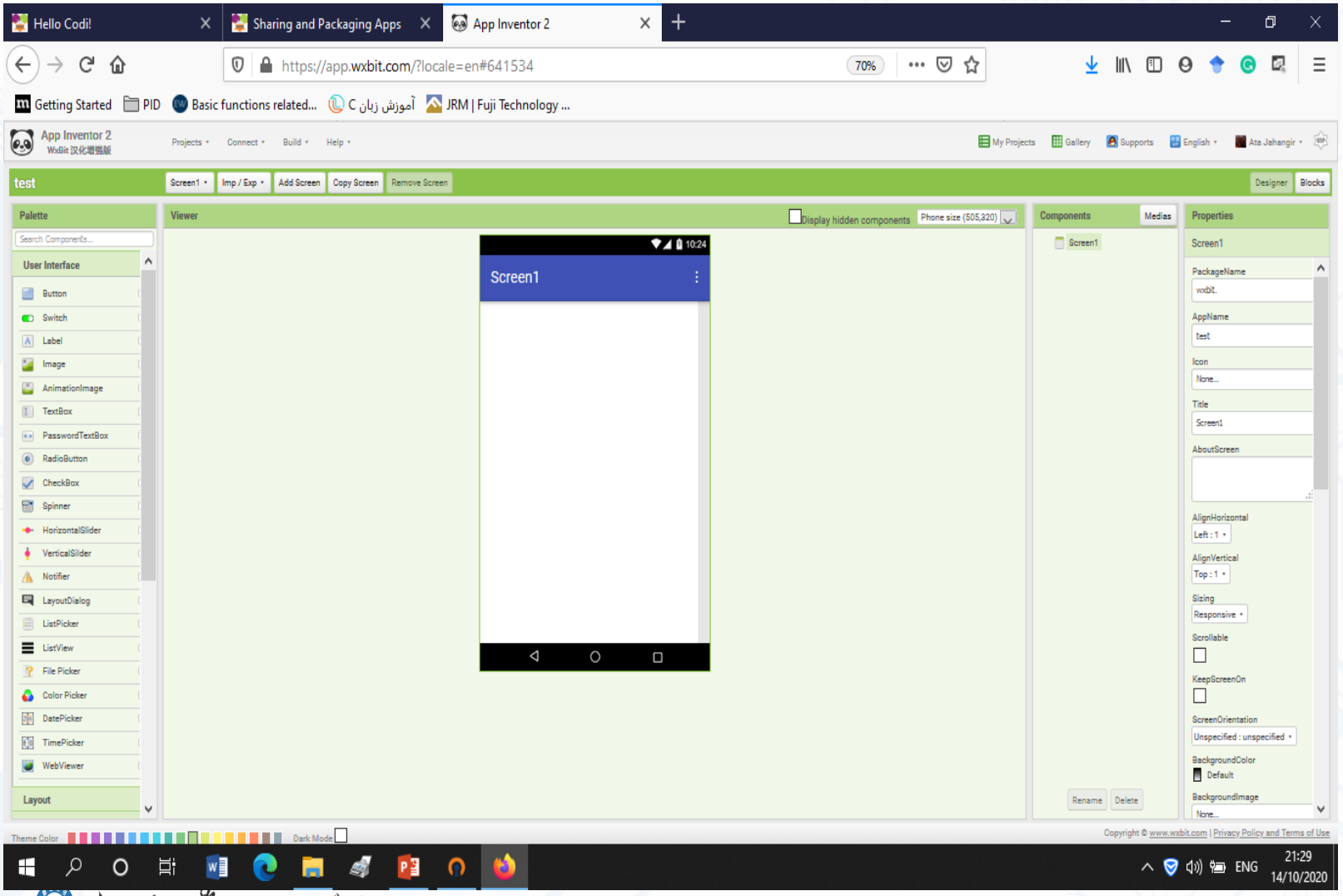


Component-Specific Drawers: Find Blocks for behaviors for specific Components and drag them to the Blocks Viewer.

Block: Snap Blocks together to set app behavior.

Viewer: Drag Blocks from the Drawers to the Blocks Viewer to build relationships and behavior.

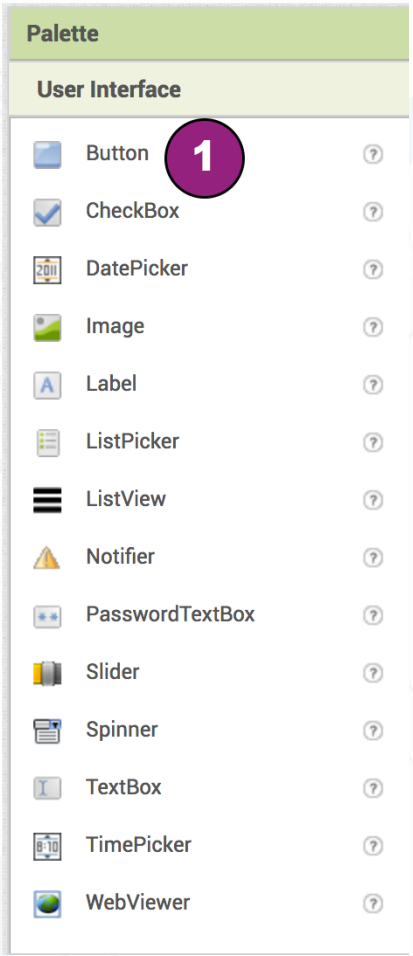
Let us start out first APP



Building your first app: HelloCodi

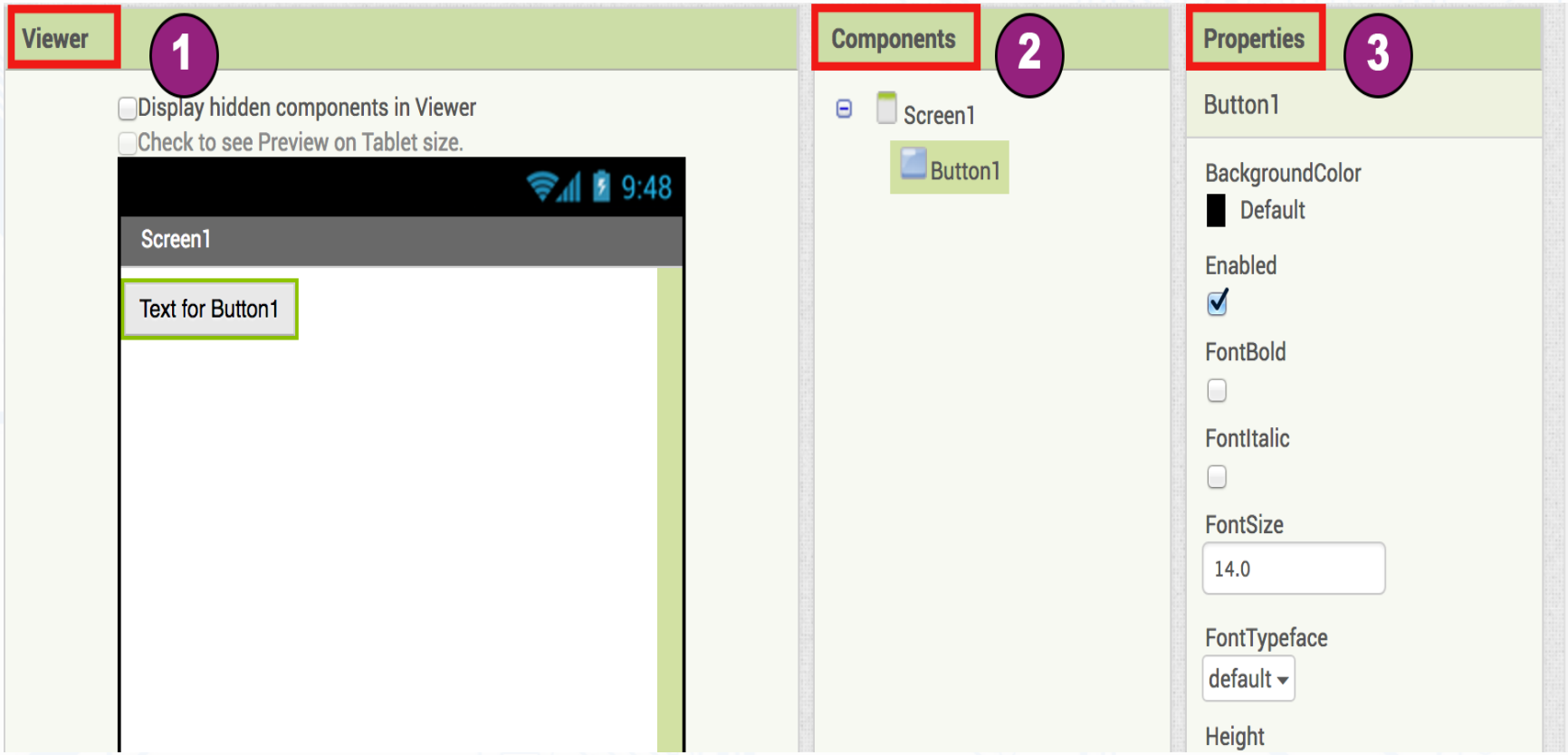
- HelloCodi
- By press the label have some sound

Building your first app: HelloCodi



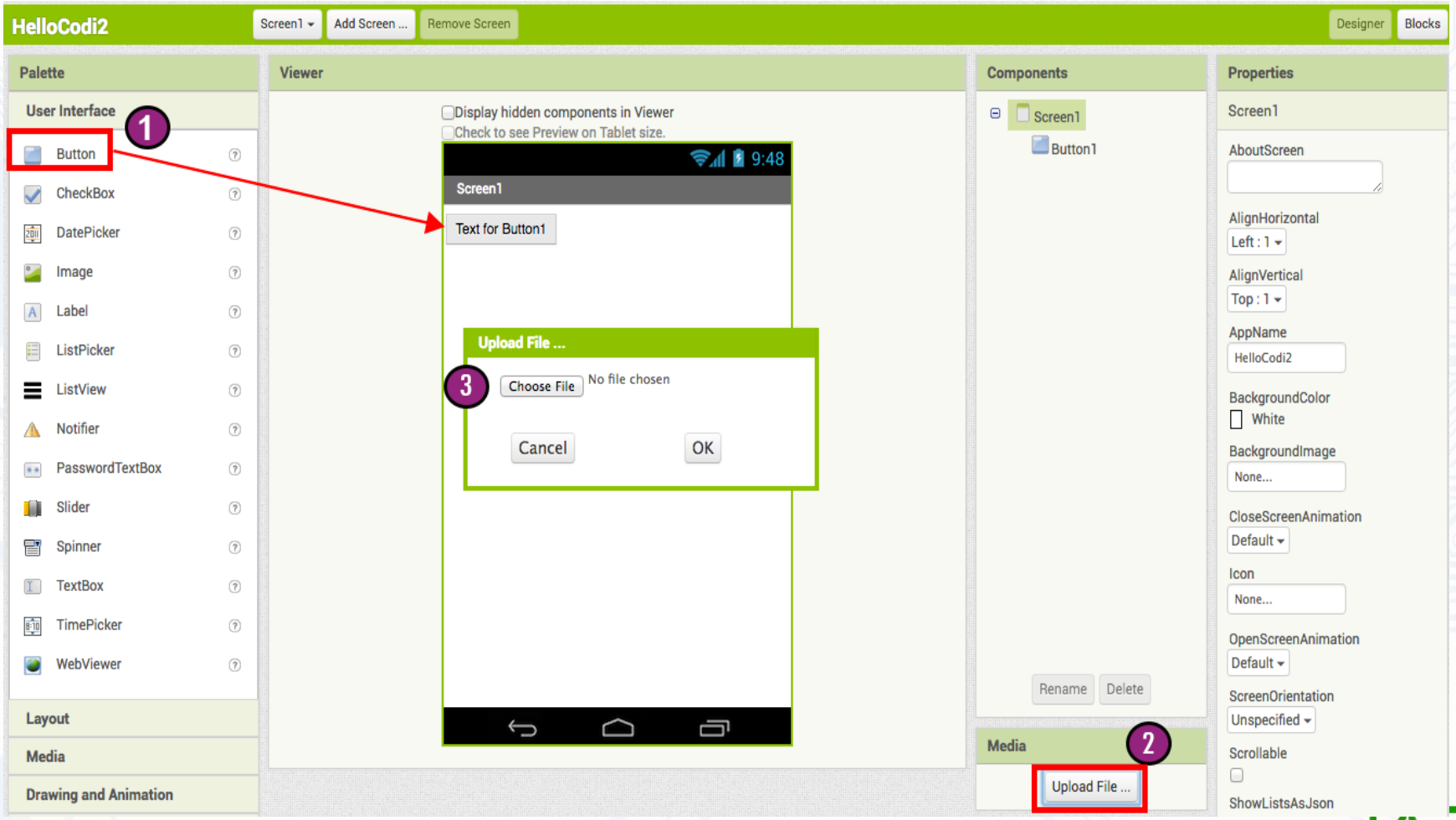
- The App Inventor **Components** are located on the left hand side of the *Designer Window* under the title **Palette**.
- Components are the basic elements you use to make apps on the Android phone. They're like the ingredients in a recipe.
- Some components are very simple, like a **Label** component, which just shows text on the screen, or a **Button** component (#1 left) that you tap to initiate an action.

Building your first app: HelloCodi

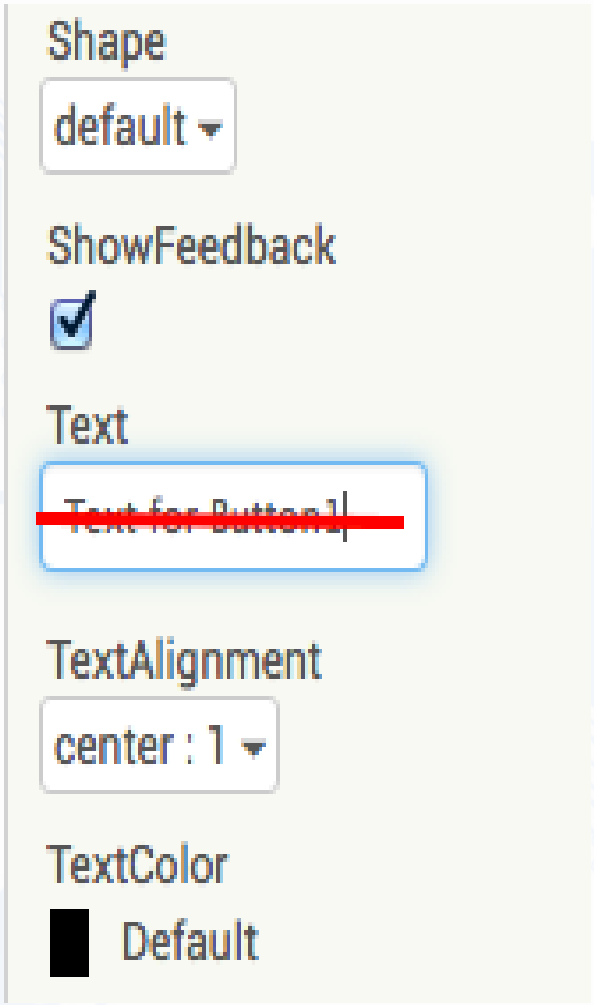


Steps for selecting components and setting properties

Building your first app: **HelloCodi**

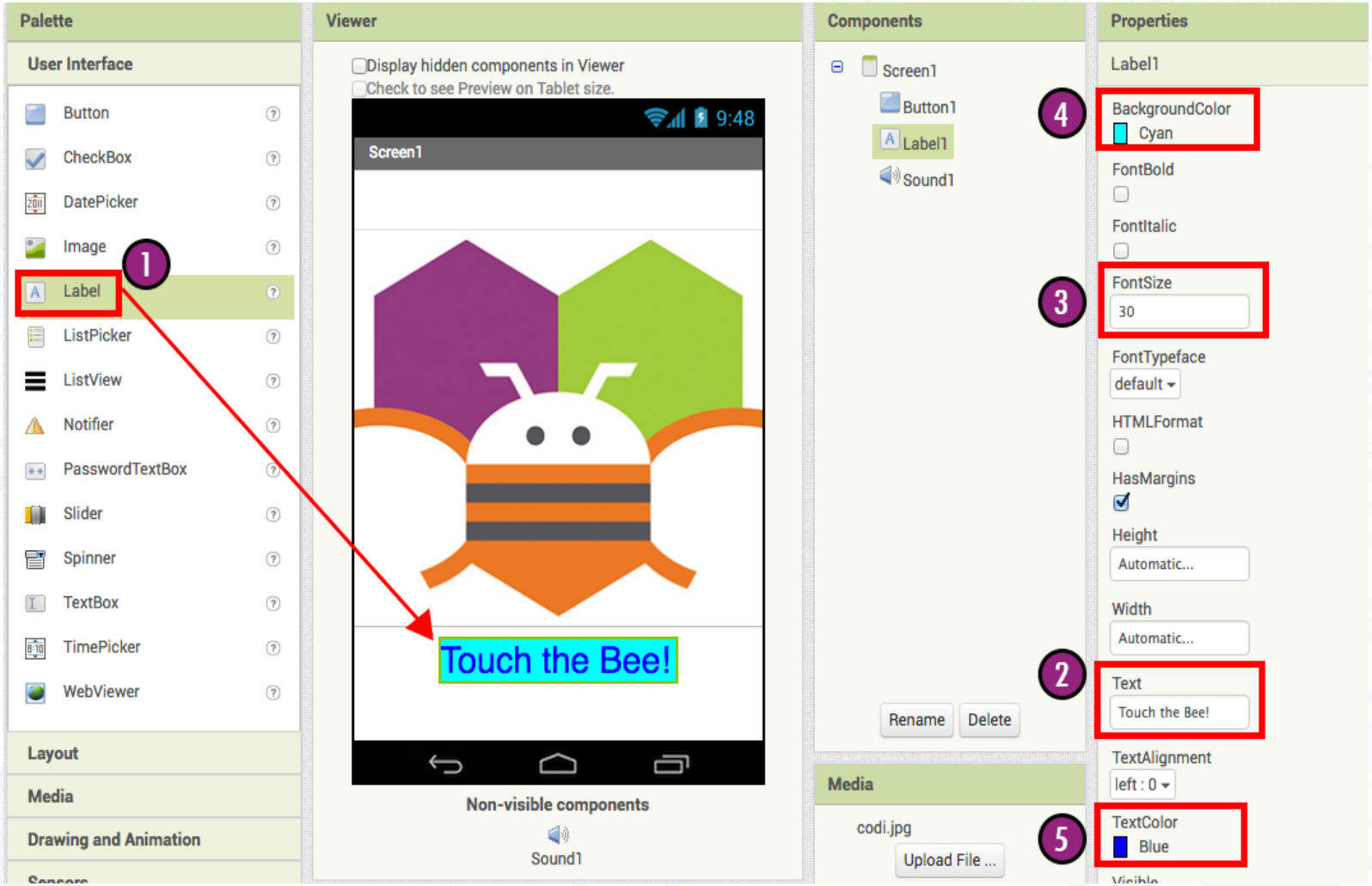


Building your first app: **HelloCodi**

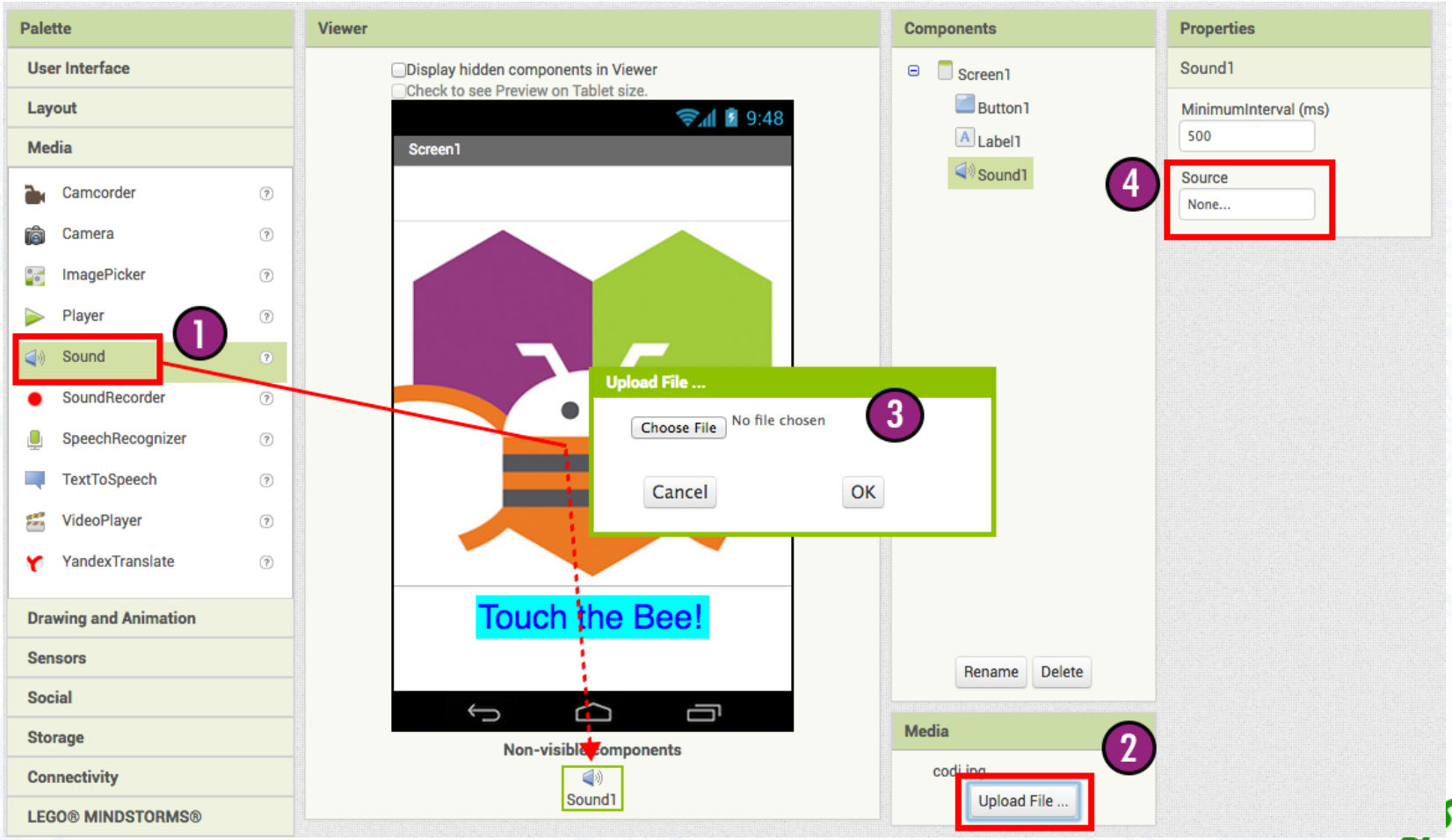


Step 2. Change the Button's **Text** property: Delete "Text for Button1", leaving the Button's text property blank so that there is no writing over the bee image.

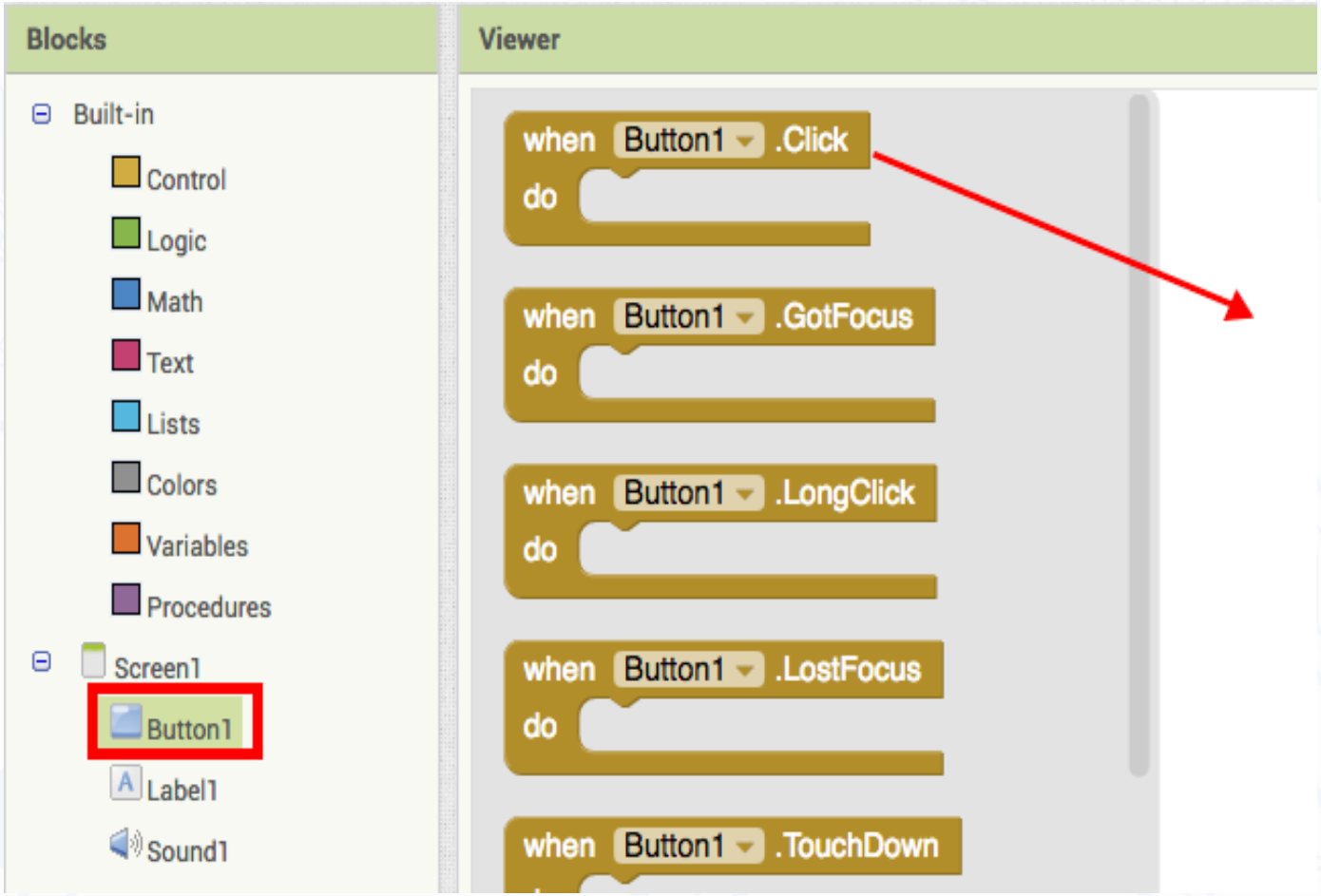
Building your first app: HelloCodi



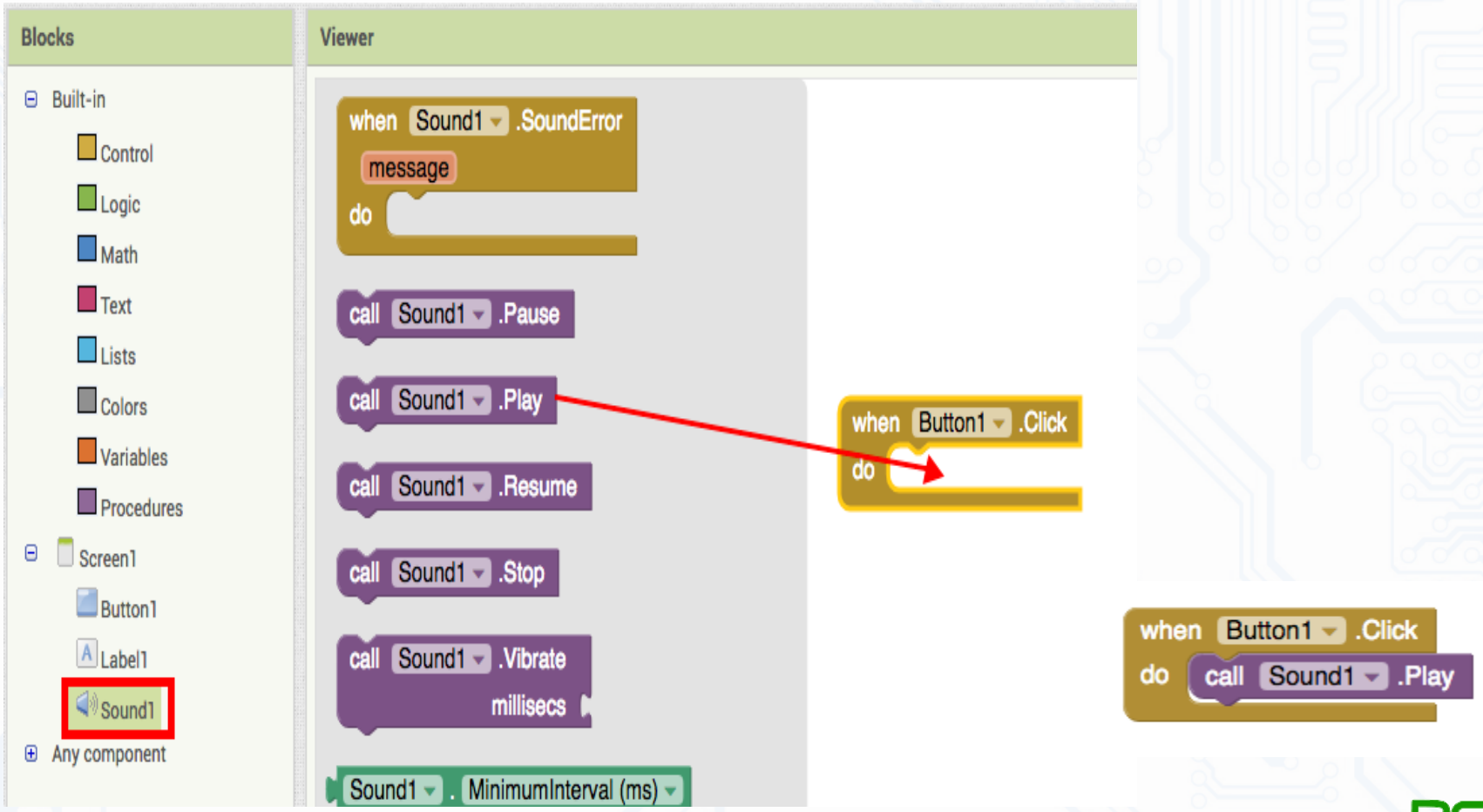
Building your first app: HelloCodi



Building your first app: HelloCodi

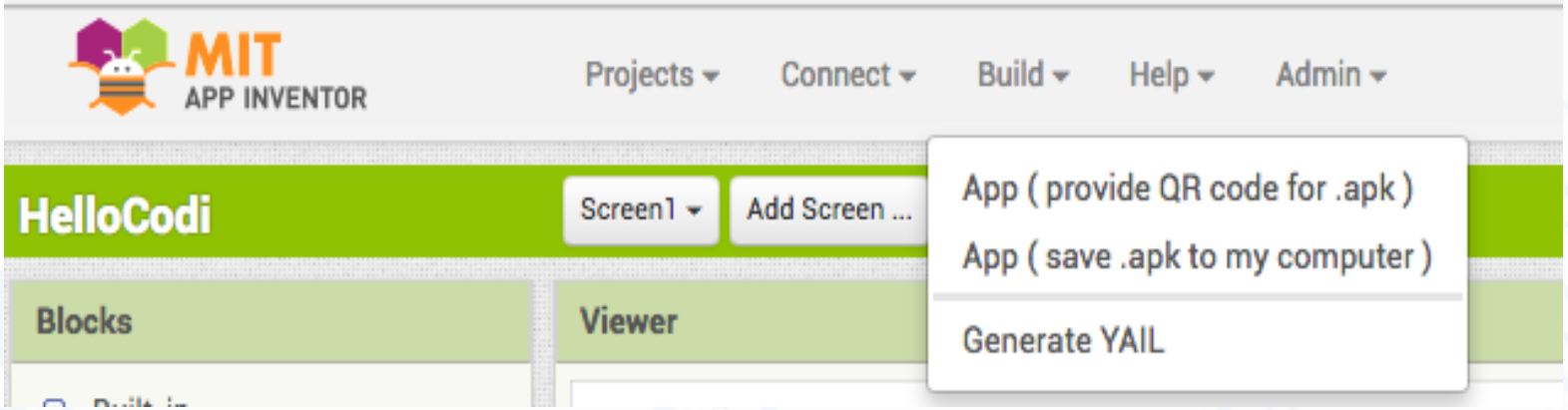


Building your first app: HelloCodi



Packaging your app

- While your device (emulator or phone/tablet) has been connected to App Inventor, your app has been running in real time on your device. If you disconnect the emulator/device from the Blocks Editor, the app will vanish.
- You can always make it return by reconnecting the device. To have an app running without being connected to App Inventor, you must "**package**" the app to produce an application package (apk file).
- To "package" the app to install on your device or to send to someone else, click the **Build** tab at the top of the screen. Under Build, there are two options available for you to choose from:



Packaging your app

Methode 1:

- App (provide QR code): You can generate a Barcode (a QR Code), which you can use to install the app on a mobile device that has a camera, with the aid of a barcode scanner, like the ZXing barcode scanner (freely available in Google Play).
- this barcode is only good for two hours. If you want to share your app with others via barcode over a longer period, you'll need to download the .apk file to your computer and use a third-party software to convert the file into a barcode. More information can be found here.

Packaging your app

2. App (save to my computer):

You can download the app to your computer as an apk file, which you can distribute and share as you like by manually installing it on other devices. (sometimes called "side loading").

Here are the key ideas covered so far:

•You build apps by selecting components (ingredients) and then telling them what to do and when to do it.

•You use the Designer to select components and set each component's properties. Some components are visible and some aren't.

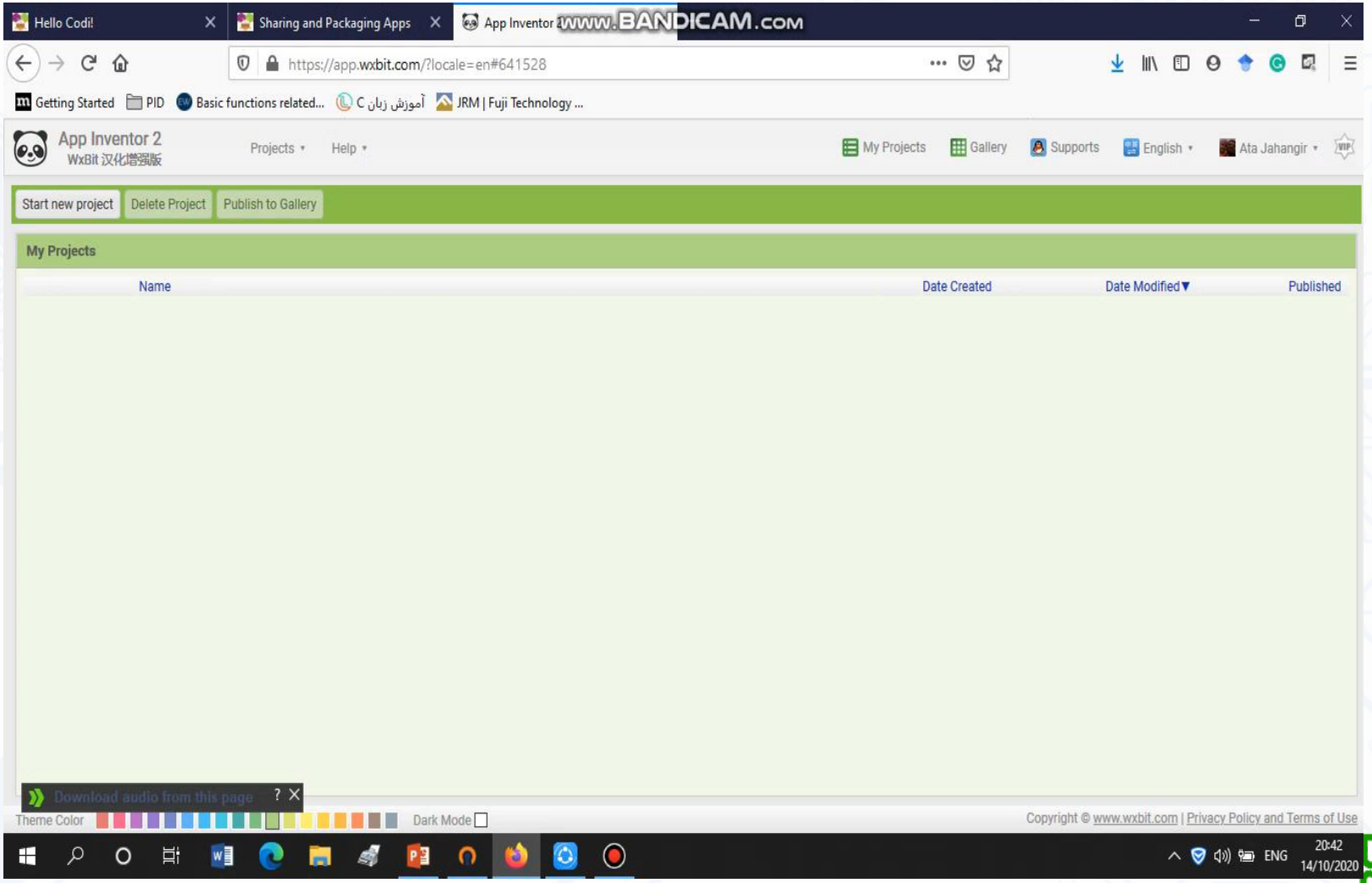
•You can add media (sounds and images) to apps by uploading them from your computer.

•You use the Blocks Editor to assemble blocks that define the components' behavior

•when ... do ... blocks define event handlers, that tell components what to do when something happens.

•call ... blocks tell components to do things.

Example


Hello Codi!
Sharing and Packaging Apps
App Inventor
www.BANDICAM.com
https://app.wxbit.com/?locale=en#641528
Getting Started
PID
Basic functions related...
C آموزش زبان
JRM | Fuji Technology ...
App Inventor 2
WxBit 汉化增强版
Projects
Help
My Projects
Gallery
Supports
English
Ata Jahangir
Start new project
Delete Project
Publish to Gallery
My Projects
Name
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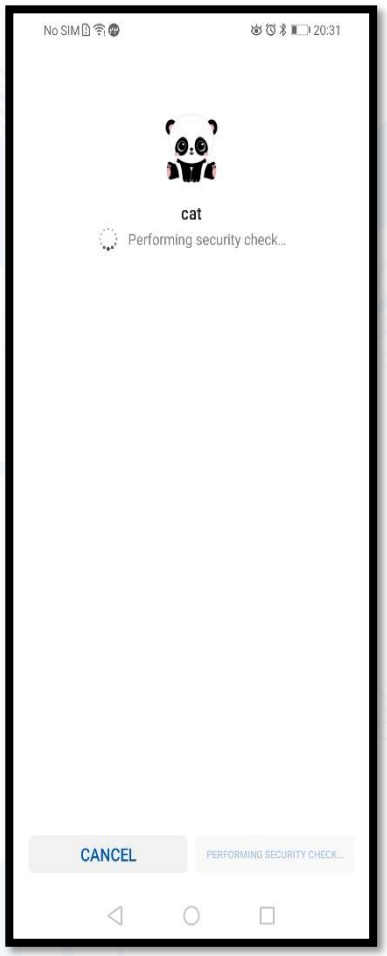
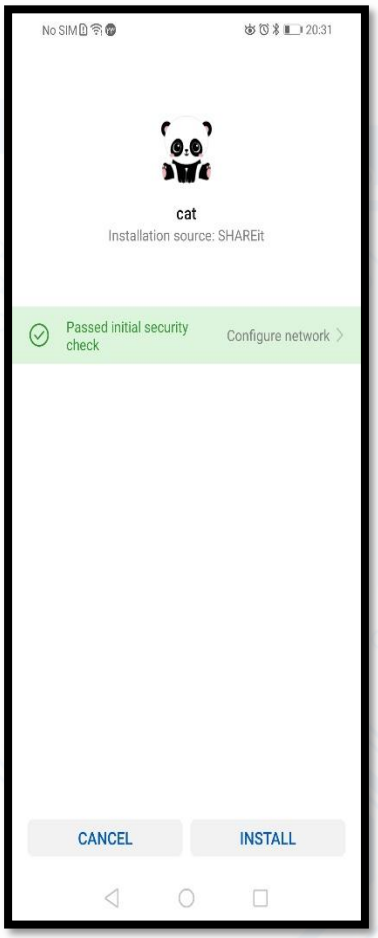
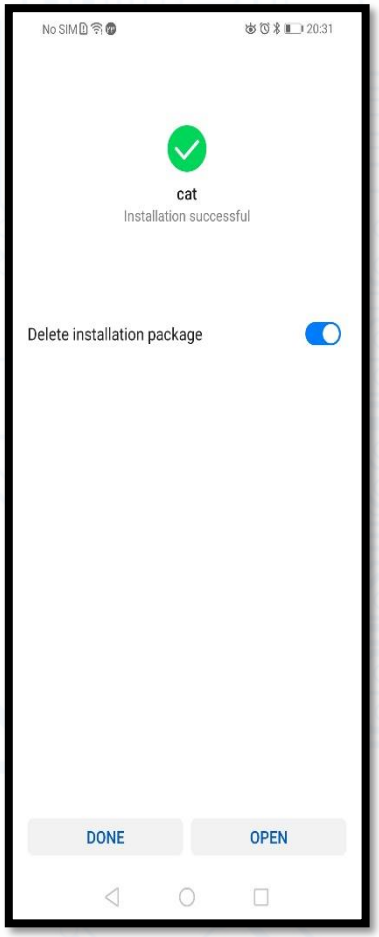
14/10/2020

Example

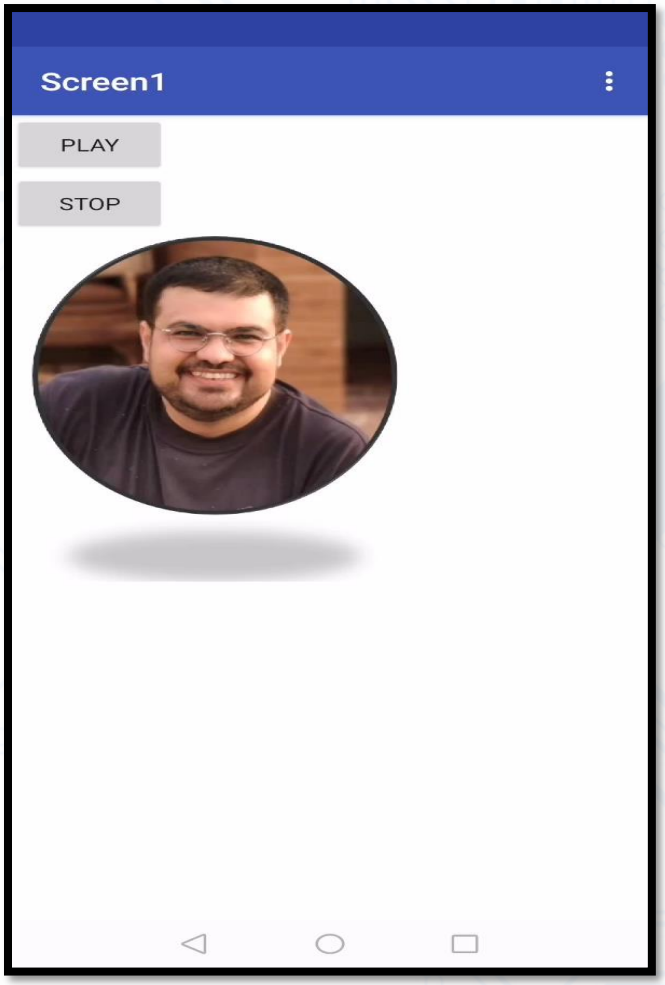

No SIM
20:31
cat
Performing security check...
CANCEL
PERFORMING SECURITY CHECK...


No SIM
20:31
cat
Installation source: SHAREit
Passed initial security check
Configure network
CANCEL
INSTALL

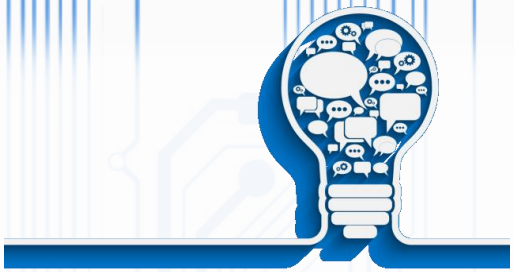

No SIM
20:31
cat
Installation source: SHAREit
Installing...
CANCEL


No SIM
20:31
cat
Installation successful
Delete installation package
DONE
OPEN

Test on my mobile



Student Task_2



1. **Make your first app with JXUST logo**
   when you press the picture it should sing the school song
   Make the video from your assignment

Next lecture

- **Send based on task format to MOOC system**
- **Your file should have this format of name**

  <Task number><student name><Student ID>.ppt

Reference

- **Teaching with AppInventor**
  http://appinventor.mit.edu/explore/teach.html
  AppInventor Tutorials:
  http://appinventor.mit.edu/explore/ai2/tutorials.html
- **Sounds** http://www.soundbible.com
- **App Inventor:** http://appinventor.googlelabs.com/
- **Appinventor.org:** http://www.appinventor.org/
- **Wolber, Abelson et al. text:** http://www.appinventor.org/text2011
- **Group:** http://groups.google.com/group/app-inventor-instructors
- **Wolber course:** http://appinventor.org/course-in-a-box
- **Morelli course:** http://turing.cs.trincoll.edu/~ram/cpsc110/

"BE HUMBLE. BE HUNGRY. AND ALWAYS BE THE HARDEST WORKER IN THE ROOM."

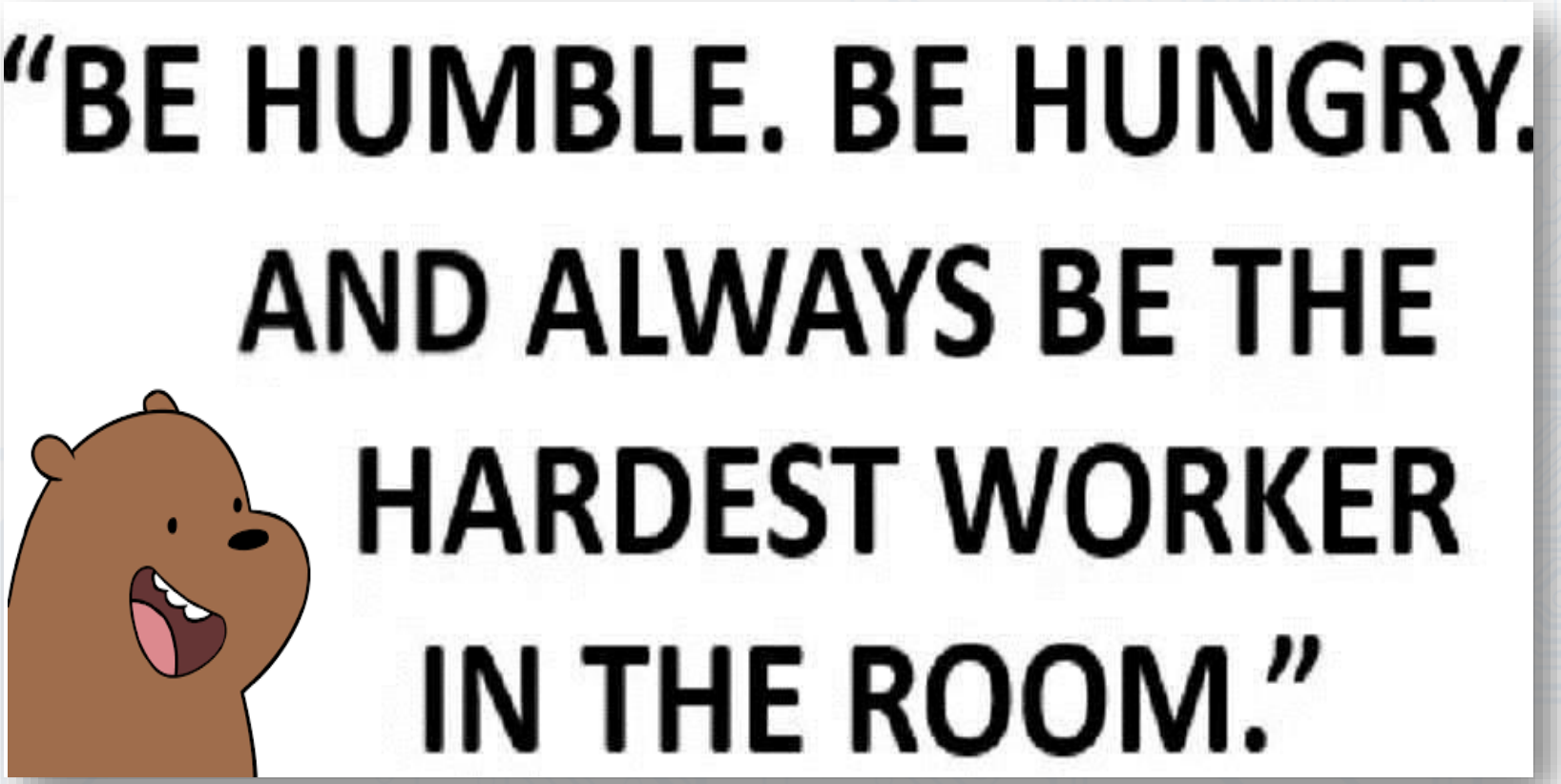
江西理工大学
Jiangxi University of Science and Technology
信息工程学院
School of information engineering

Digital Image Processing

THANK YOU

"The beauty of research is that you never know where it's going to lead."

RICHARD ROBERTS
Nobel Prize in Physiology or Medicine 1993


"BE HUMBLE. BE HUNGRY.
AND ALWAYS BE THE
HARDEST WORKER
IN THE ROOM."