



江西理工大学 信息工程学院

JIANGXI UNIVERSITY OF SCIENCE AND TECHNOLOGY SCHOOL OF INFORMATION ENGINEERING



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Mobile application development

移动应用开发



Lecture 027: TASK review

Prof Associate ,
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江西理工大学 信息工程学院

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MOBILE APPLICATION DEVELOPMENT

LECTURE 027: **TASK review**



Lecture list 2021_B

- 1.1 Lecture01:Course introduction
- 1.2 Lecture01:Intro to app inventor
- 1.3 Lecture02:Getting start with app inventor
- 1.4 Lecture03:App inventor env_01
- 1.5 Lecture04:How to design an effective app _1
- 1.6 Lecture05:App inventor_enviroment 2
- 1.7 Lecture06:How To Design an APP(1)
- 1.8 Lecture07:How to Design APP(2)
- 1.9 Lecture08:Sensor section
- 1.10 Lecture09:Review the exa...nd introduce some blocks
- 1.11 Lecture010: MIT APP_List
- 1.12 Lecture010:MIT APP_List b(FYI)
- 1.13 Lecture011:Student Portal exmple
- 1.14 Lecture011:Math block and example
- 1.15 Lecture012:APP Inventor ...and procedure Blocks
- 1.16 Lecture012:MIT APP and IOS

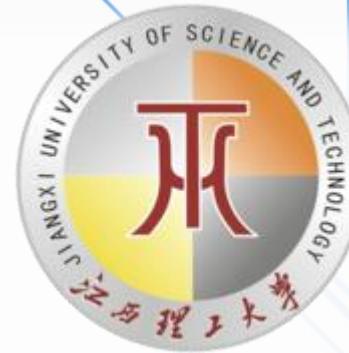




Lecture list 2021_B

- 1.17 Lecture013/MIT APP Clock&Time/Date
- 1.18 Lecture014/MIT APP CANVAS and Game
- 1.19 Lecture015/MIT APP e...storage and connectivity
- 1.20 Lecture016/MIT APP and JAVA
- 1.21 Lecture017/MIT APP and TINY DB Examples
- 1.22 Lecture018:Tips and tricks
- 1.23 Lecture 018:Image classification with MIT
- 1.24 Lecture019:Review the example
- 1.25 Lecture019:Voice Calculator(morshed)
- 1.26 Lecture020:Example
- 1.27 Lecture020:Face Mesh Fil... system in AI technology
- 1.28 1Lecture21:More example on canvas
- 1.29 Lecture21: Can we teach AI to dance?
- 1.30 Lecture22:examples...
- 1.31 Lecture23:Using the Actively component and some examples
- 1.32 Lecture24:Lecture23:Using component and some examples
- 1.33 Lecture25:Fully game example
- 1.34 2Lecture26:Flutter





Jiangxi University of Science and Technology



MOBILE APPLICATION DEVELOPMENT

TASK review





Task_ Question 01

- What is the rank of App inventor among other Android App IDE?
- List the advantages and disadvantages of App Inventor.
- What can you build with App Inventor?



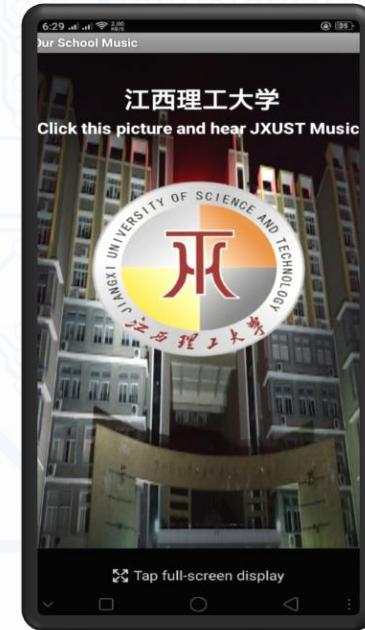


Task_ Question-02

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

Aim of task:

We're going to get started right away with something more exciting: our first app will be "JXUST_Logos" a picture of a JXUST school logo that picture when touch it and hear school music.





Task_ Question-03

1. Make the below GUI
2. When press the Login enter to the next page which have your image

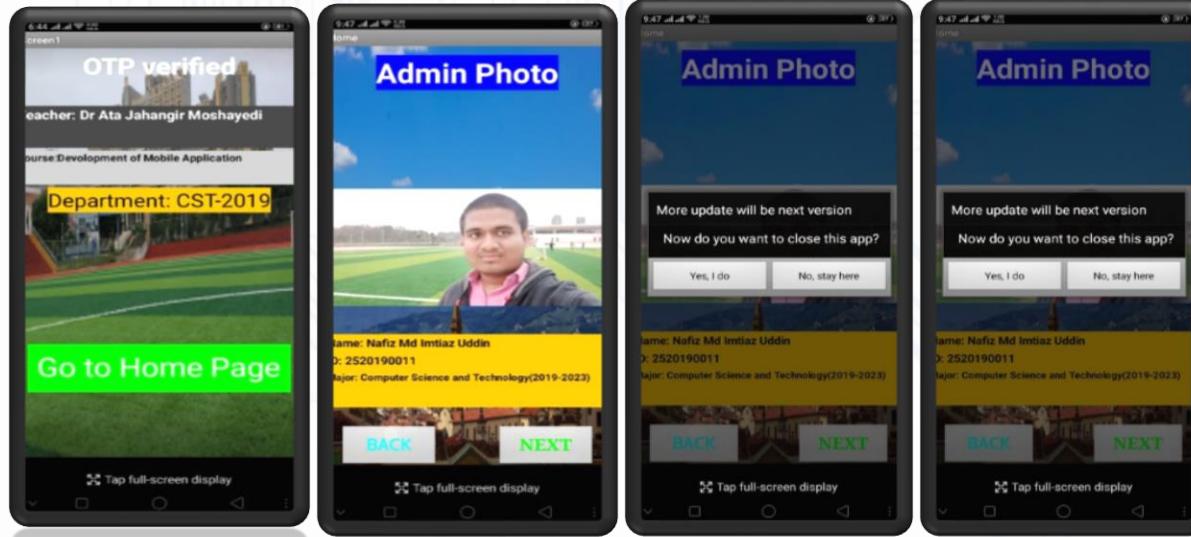




Task_ Question-03

Aim of task:

We're going to get started with second app: our this app will be “JXUST_CST19”(Version:-JXUST-101) a picture of a JXUST school logo that above button when touch it and hear school music. And here is mentioned Login button and press Login button it. It will go to another page. It means that it is multi screen task app making with App Inventor.





Task_Question-04

- **1. How to calculate the price of APP**

Proof with the example

Analyses based on one real app with the features and part of real app

- **2. Summarizes the clip 2 in the main point**

(some thing like presentation) We need the key point and aspect

Aim of task:

Three items have been recorded here and with a simple calculator system.

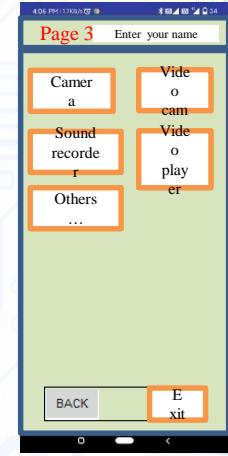
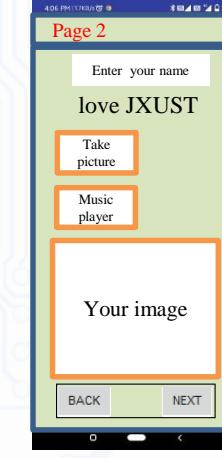
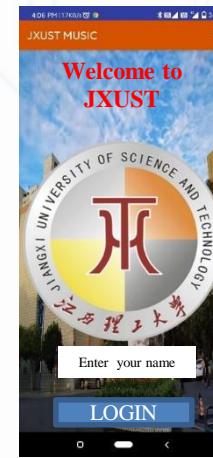




Task Question-05

- ✓ 1. Make the below GUI and please follow text with the task image
- ✓ Login page: When the app opens, at the top navbar, initially we have a school song, it will play the song after press JXUST MUSIC navbar button, fill up your name[enter your name] in the text box, after filling up this box. this name will print the other two pages, as your input. press the login button, after putting this login button you will go to page number 2,
- ✓ page 2:
 - ✓ 1. your name will be here [enter your name]
 - ✓ 2. have the text: [Love JXUST] label of text,
 - ✓ 3. then add 3 sections in GUI, take pictures, music player, and your image,
 - ✓ 4. by pressing the image button you picture will be capture and shown in the picture place
 - ✓ 5. by using back and next you can come back to login page or page number 3 if you putting NEXT button it will go to page number 3,
- ✓ Page 3:

at the top [write your name], this page 3 has a media section like camera, video player, sound recorder, video player, others...anything you can add here. after that we have page navigation one is back and one is exit button if you press BACK button it will be return page number 2, if you press EXIT, the app will be terminated with a confirmation notification [do you want to close this app?] agreement,[Yes, I do] or [no, stay here].



Use the new task template task

- First user should enter his/her name and then name should print in all other pagers as per as drawn screen
- The music player section is like the last example
- For the section I call others please try to counting more bottom and use the media section in app inventor

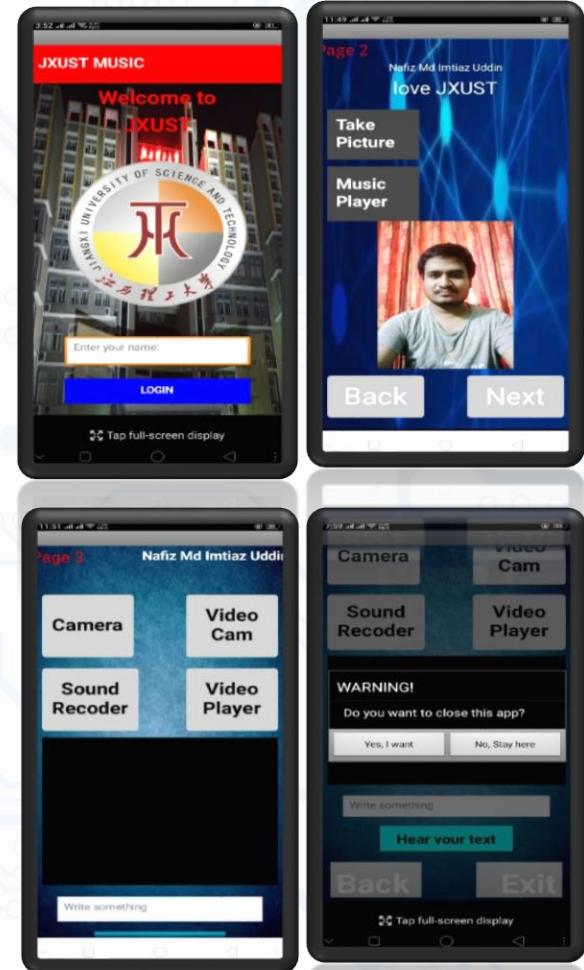
Check the op of camera and video place as well as the format of file and number of clips and image that you can take



Task_ Question-05

Aim of task:

Make an app, where there will be mainly three screens. On the first screen a song system, type the name in the textbox and clicking the login button will display it(value) on the other two screens. And on the second screen there is a Screen1 TextBox1 value show, taking picture, a music player button, my picture and a back button(Go to Screen1) another next button (Go to Screen2). The third screen will have Screen1 TextBox1 value show, some media sections and a back button (Go to Screen2) and another exit button (Close the app).





Task_ Question -06

- **Task-06(Starting from slide no 3)**
- 1. Write a list ,name and comparison of prototype tools for mobile APP developer with the link
- 2. Write a list ,name and comparison of online UI/UX tools evaluator
- 3. How to work with google analysis (for app developer)
- ▶ List and make the title chart about how to design a good app based one lecture

Mobile application life cycle





Student Task_7

List and make the title chart about how to design a good app based one lecture





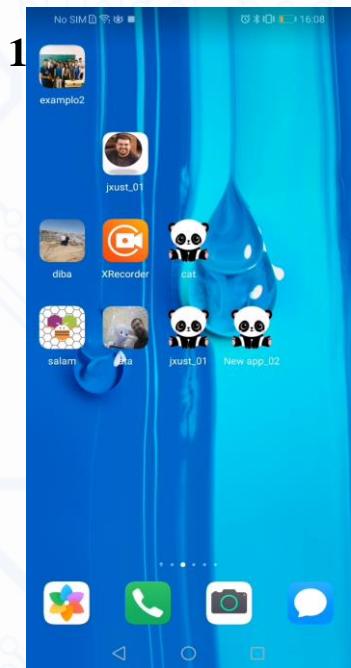
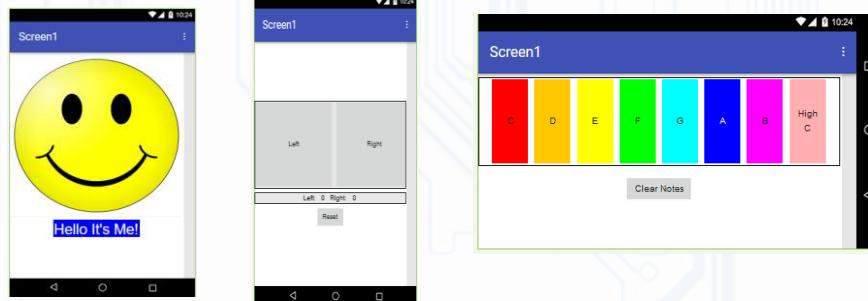
Task_Question-07

- **Read the task book 2**
- **send solved example(Student Portal with calculator) for all your friend in our lecture(cs2019) ppt + video clip based on each section and total app Follow the task PPT format .**
- **Report the problem and solution for the Student portal and calculator version 1**

1. Repet the example in the ppt and report and sort the problem

Whats your prefer name for this app?

2. Design and follow two example shown on task book 1, you should send the design process and working add clips inside your ppt





Task_Question-07

Aim of task:

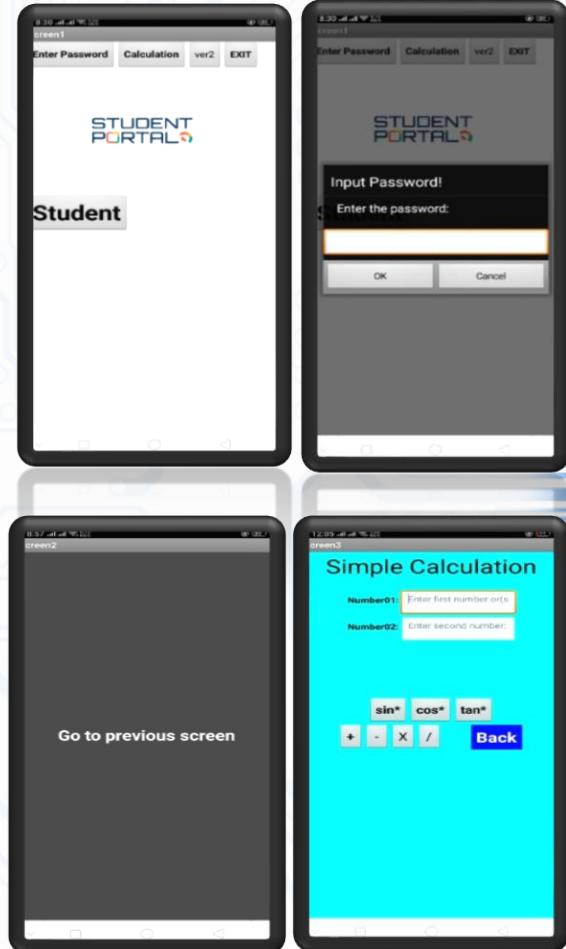
In this app, there are some button, one button is password section, if we put right password, then it goes to Screen2.

Screen2 has a button(back to Screen1) Another one is Calculator button.

But here main focus is when calculator button press and back to previous screen.

Then there is also EXIT button. If we press that button. It should close the application. But it turns on the calculator screen(Screen2).

A List Picker has been used on the bottom. Through which the names of some students of CST-2019 can be seen and that name will be clicked.



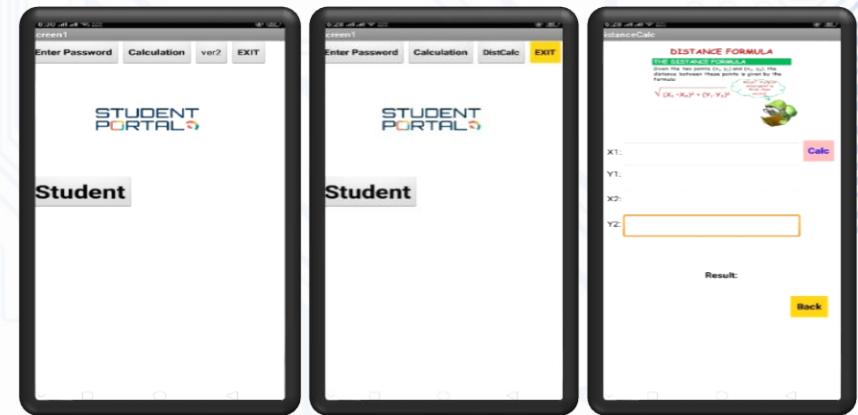


Task Question-08

- Distance calculator Designer section and repeat the example 1 and 2 about the procedure and compare

Repeat this examples and make based on our task format

- The main goal of this task here was to make “Distance Calculation”.
- The previous task(Student Portal) was one button.
- That button was just a sample. Another screen has been created with this button. The back button has been used to get out of the screen.





Task_Question-09

- Repeat these examples and make based on our task format

Practical Example 1: Clock. Timer. Flashing colors on the screen.

Practical Example 2: Clock. Traffic light.

Practical Example 3& 4: Demo and run

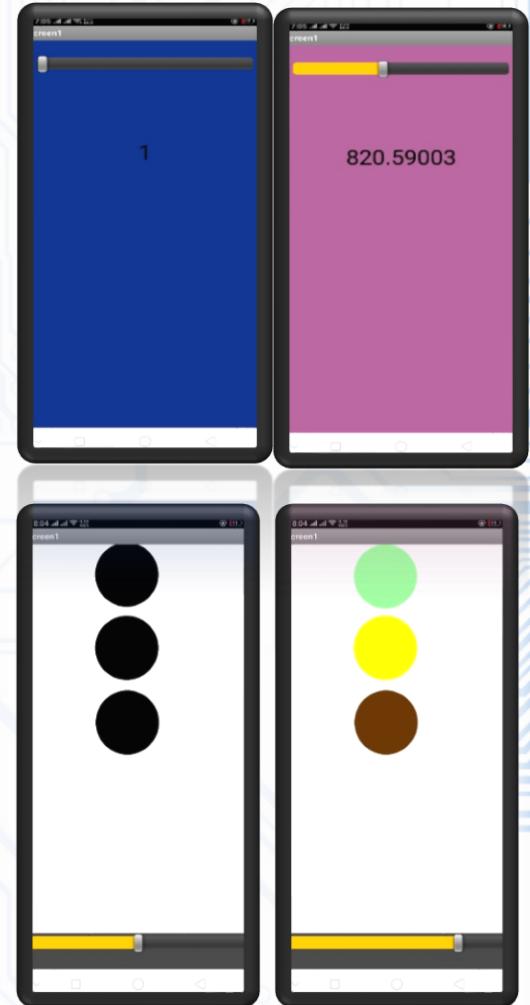
Practical Example 5: Set /Change the time and date

Practical Example 6: The TimePicker and DatePicker User Interface Controls

- Send the aia file for task 3 and 4 design and block section with video
- And also write comments on examples 5 and 6 about the difference in acquiring the time and date

The main goal of this task here is to make six apps and how their process is accomplished. Here example 5 and 6 both app is used for the same condition.

Yet there are some differences between them that I need to differentiate.





Task_Question-09





Task_ Question-10

Repeat this examples and make based on our task format You can change the game and add the part to examples but you should describe the added part and logic in your task ppt

- **How do you draw shapes and images in an app?**
 - Example 1. How do you create a drawing canvas?
 - Example 2. How do you draw a circle at 10,10?
 - Example 3. How do you draw a circle where the user touches?
 - Example 4. How do you move an image to the middle of the canvas?
 - **Practical Example 1:**
 - **Practical Example 2:**
 - **Practical Example 3:**
 - **Practical Example 4:**
- Add this part to example 04(Wall and Ball):
 - After push the start the counting ball become zero
 - Change the speed of ball movement
 - Also describe the logic to number that we assign in the block section

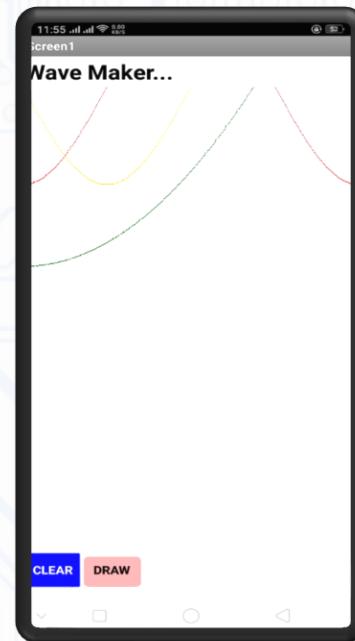
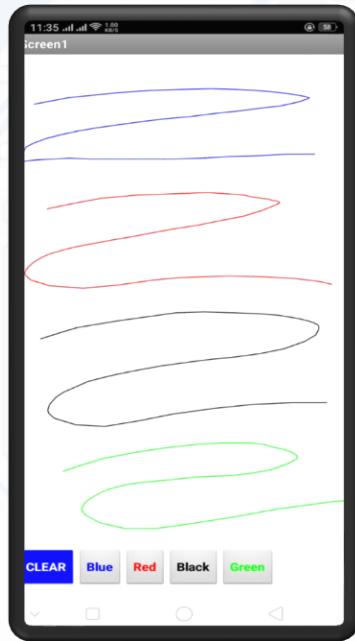
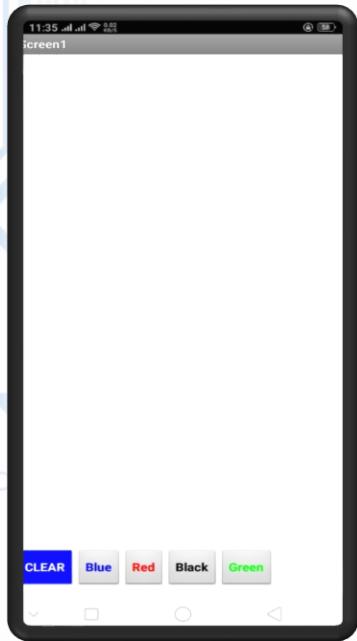




Task_Question-10

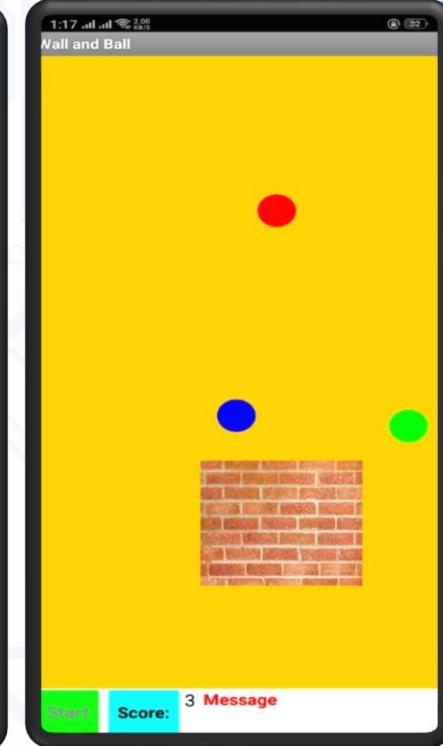
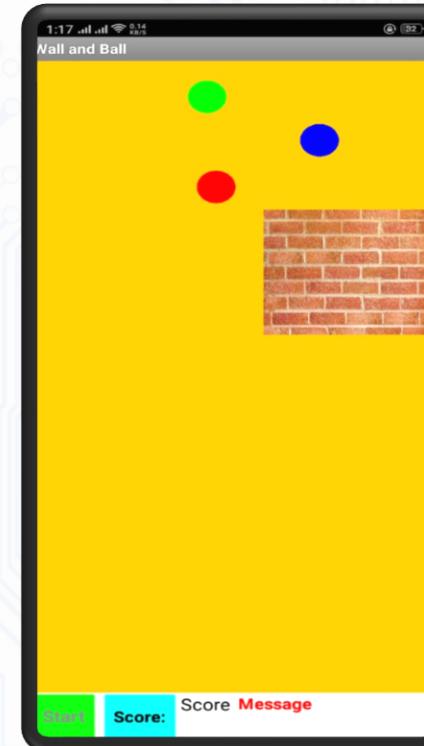
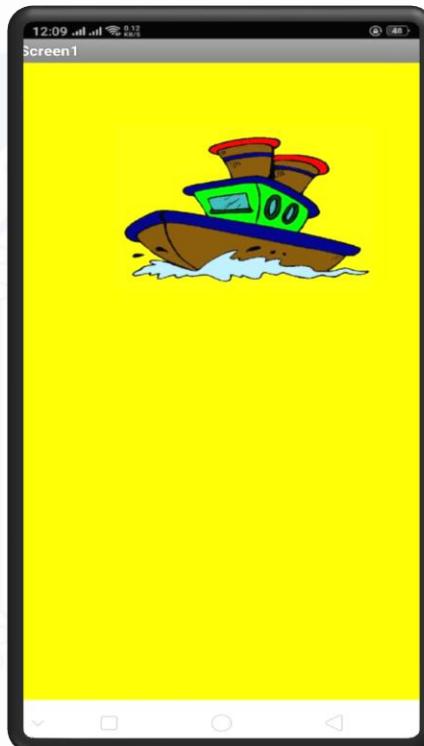
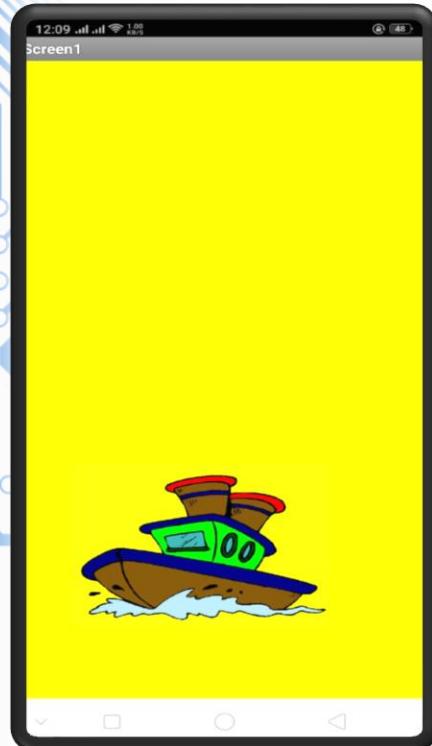
Aim of task:

The main goal of this task here is to make four examples and how their process is accomplished.





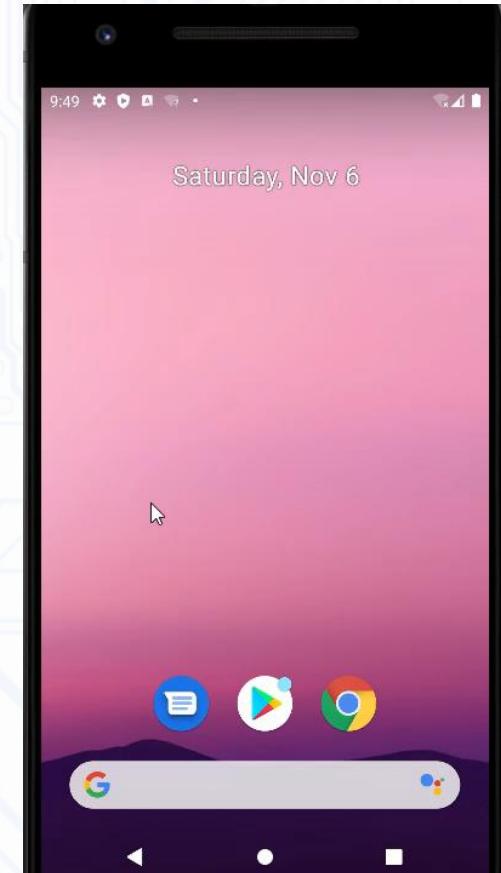
Task_ Question-10





Task_ Question-11

1. How java Bridge can help us in MIT App programming?
2. why we need JAVA bridge?
3. Can we run The MIT APP code in JAVA editor?





Task_ Question-12

- Repeat this examples and make based on our task format
 - We need the video of processing for example 00 and GPS (full format) rest of example we need demo
 - Add this part to example GPS(example 04):
 - Solve the location problem
 - After push, the clear remove all data and make database empty

The last 3 example of Tiny DB is optional but you can get more mark by sending the them

- ▶ Example 01:Storage Save and upload files File. READ/ WRITE
- ▶ Example 02: TinyWebDB
- ▶ Example 03:TinyDB (I)
- ▶ Example 04:TinyDB with List (II)
- ▶ Example 05: TinyWebDB data.
- ▶ Example 06:MiniTinyBD with several fields.
- ▶ Example 07: TinyDB (III) Example TinyDB more difficult.
- ▶ Example 08: TinyDB (III) Example TinyDB more difficult.



Task_ Question-12

Aim of task:

- Storage and Connectivity
- 5 example on tiny DB

Example 01:

- We can save text in a file and later retrieve them.
- Control the file can only be saved as plain text.
- Suppose if the file name is student.txt and we are in debug mode with MIT AI2 Companion, it is saved storage, specifically like : appinventor/data/student.txt.

Example 02:

It is save a person's name and age. We write on name of a person, their age and click the Save Button. Then we get name and age click the View Button. The Clear Button clears all data visible on the screen.

Example 03:

It's a look like Example 2. But in this example, there are four Text Boxes(Name, Surname, Age, City). Also here are four labels for showing data. And Here is the Save button, Clear Button, Read Button is similar to Example 02.

Example 04:

In this example, it is for data collection. But there is a location sensor is included. Here one text box is for a location name and two-button is for longitude and latitude. Here is the attached save button. Even there is one clear button for removing all of the text box writing data and list viewing data.

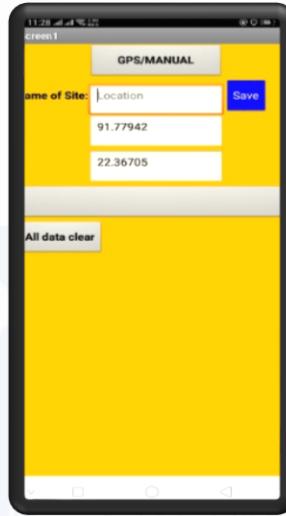
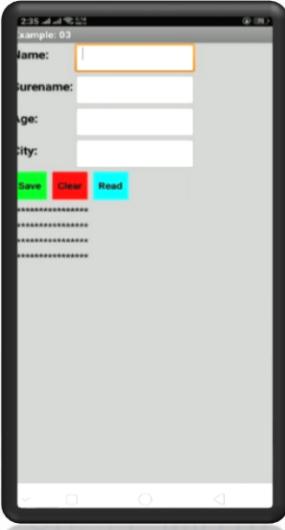


Task_ Question-12





Task_ Question-12





Task_ Question-13

- Repeat this examples and make based on our task format
- For example 04 and example 05 : first find the logic and mathematical formula then start the work on APP in your PPT you should enter the mathematical formula
- Solve the extension version as the separate example
- Find the problem in the mentioned task first report what was the problem then solve it and report

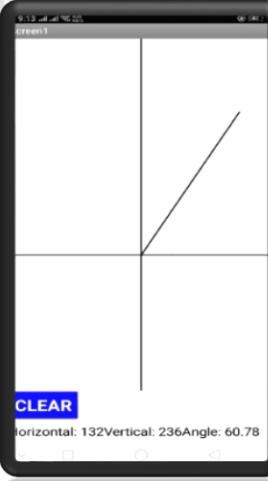
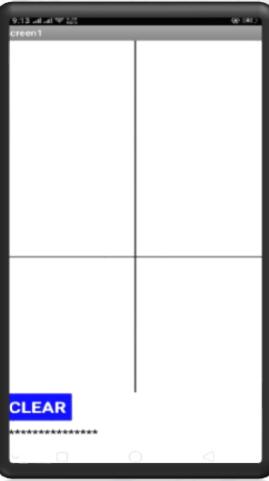
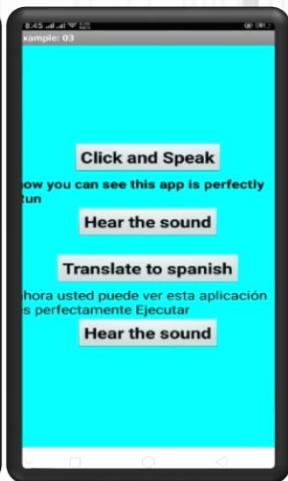
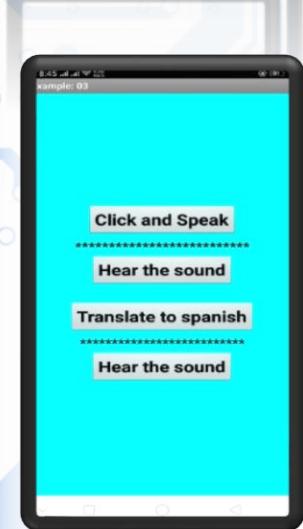
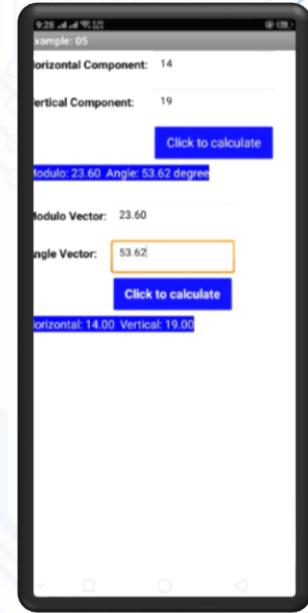
Here Example 1 to Example 3 usually deals with tax. In **example 1**, if we write any text in that box and press the button. So, the text will deliver written like that. And **example 2**, there is one text box, one button and one label. The label component is used for showing the value. This example is actually shown as translating system. If we input any text, then press the button. Finally, it will show the translating value(English) in the label component. Another **example 3**, first of all, the user clicks the button and speak something. Then it will automatically show the label. If the user wants to hear his talk. So, the user clicks the "Hear the sound" button. Finally, the user can translate to another language(Spanish) or hear that talk.

- **Example 4** is used actually find the horizontal and vertical components in the vector system. If the user clicks anywhere on the screen. It shows the horizontal and vertical components and its angle. And **example 5** is used decomposing vector system. There are two parts, we write the vertical and horizontal component of a vector when we press the button to calculate module and angle. So, if we introduce the module and angle and click the second button, we will calculate the horizontal and vertical components.
- Here extension example(through Example 01), create a screen of two bases of TinyBD1 and TinyBD2 data. Also, the various data stored in each system.





Task_ Question-13



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App Inventor



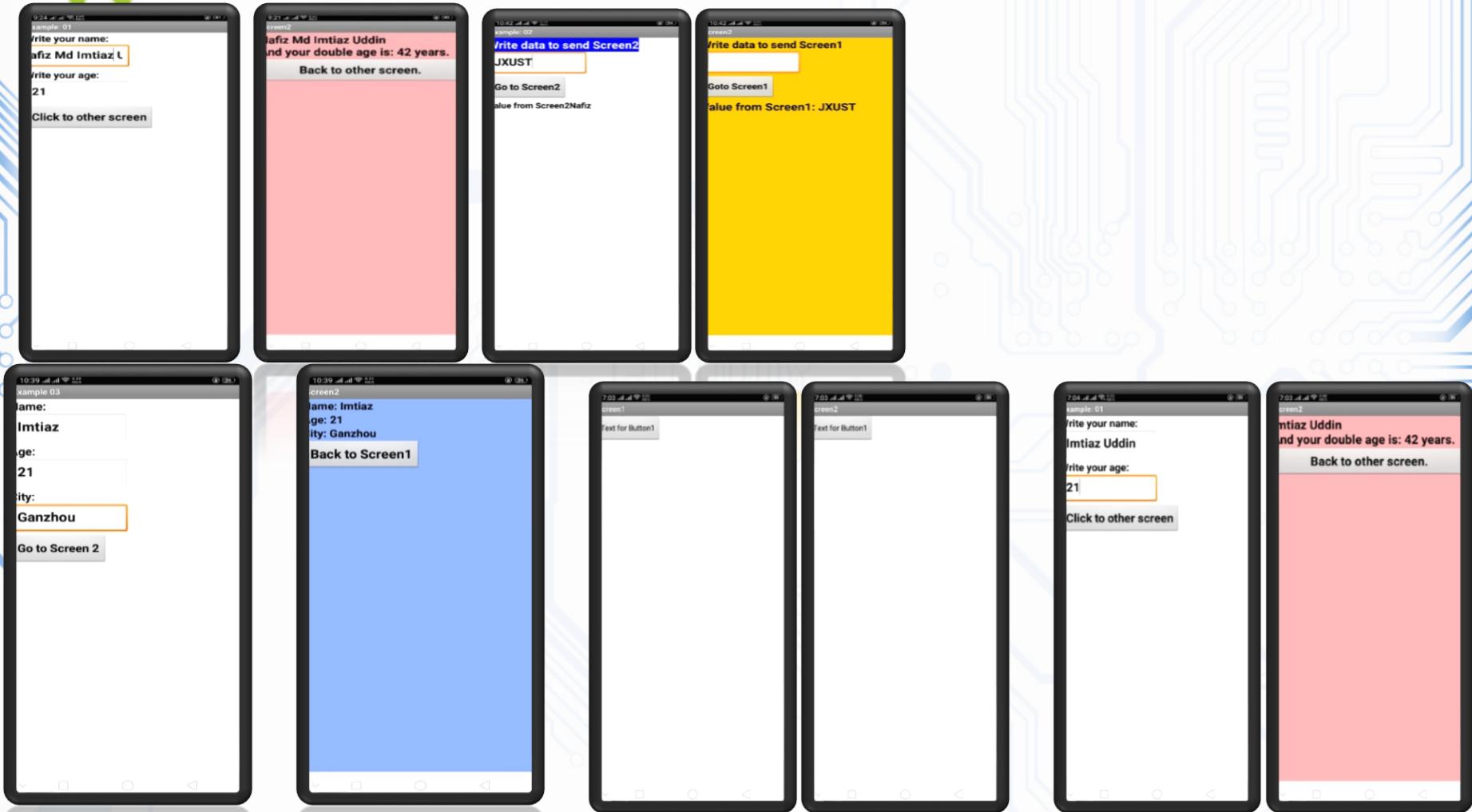
Task Question-14

- Repeat this examples and make based on our task format
- Send the process clip just for extension and for other example we need the text
- Solve the extension version as the separate example
- Extension Example 01_B

In example 01, we could have an application with two or more screens and we need to pass a value(TinyDB) from one screen to another.

nd the example number 02, We could have an application with two or more screens and we need to pass a value from one screen to another.

Finally, example number 03, looks like a list system. If we put three of the data on the first screen. Then it will show the next screen respectively.





Task_ Question-15

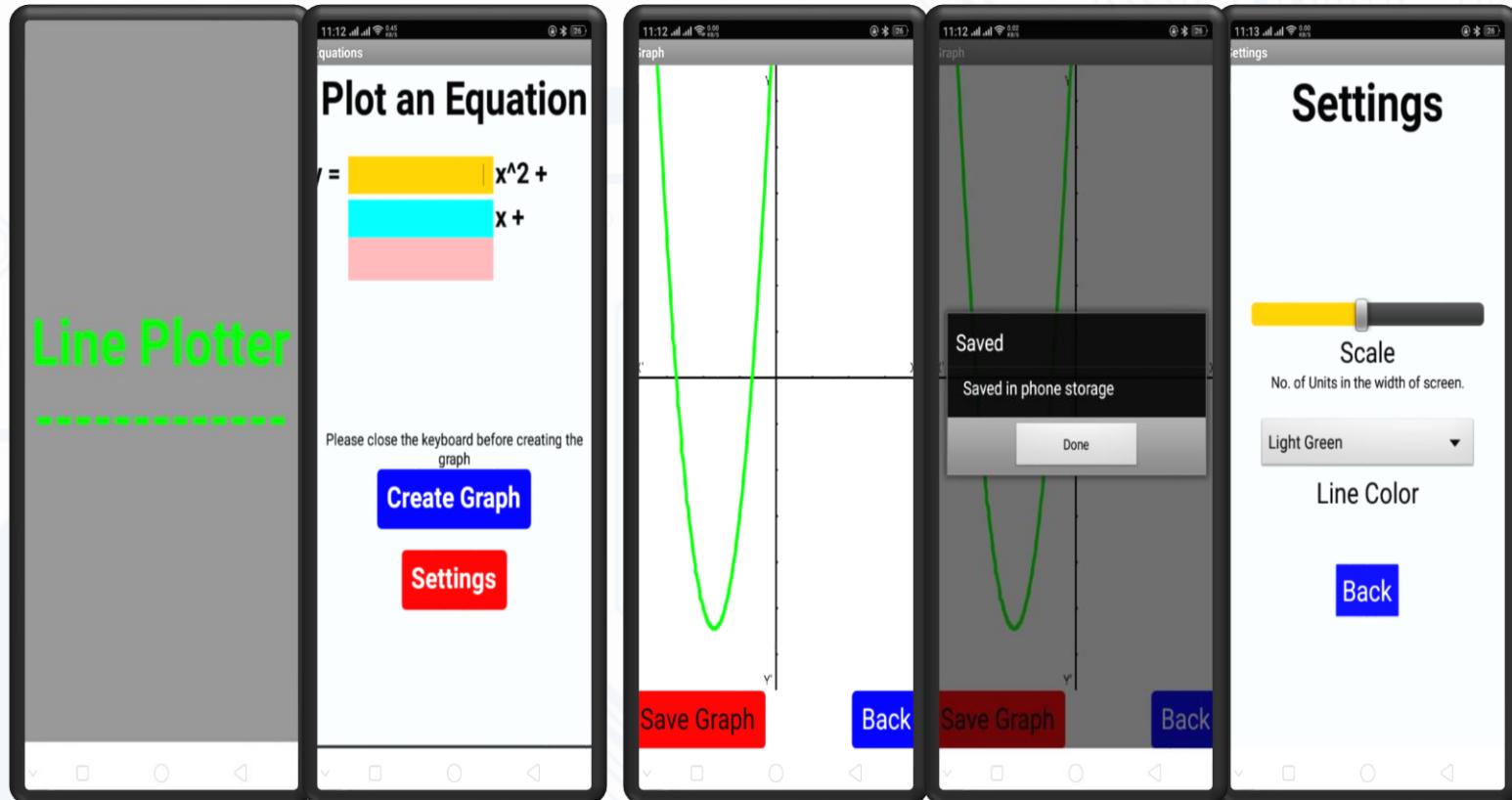
Example 1: Plotter example:	no need to have process clips no need for any report but your apk file should work (send.apk and aia file) .Write comment about each function job and use(input/ out put and job)
Example 2: Select example:	report +process video, (send.apk and aia file)
Example03: ListPicker(2)	just report
Example04: Line example	report +process video(send.apk and aia file)
Example 05: BT	For student who want get more mark Report +process clip+send.apk and aia file

There is a total of 4 examples in this task. The first task is a more mathematical way to go to how to define value, then according to value, we can make a graph(Plot a line and even quadratic equation). The second one is different ways to choose selectable data. The third one is we can choose between triangles and rectangles. Fourth is something similar to example 03(Already define the value). Final the Bluetooth example(myself) is the connectivity system.



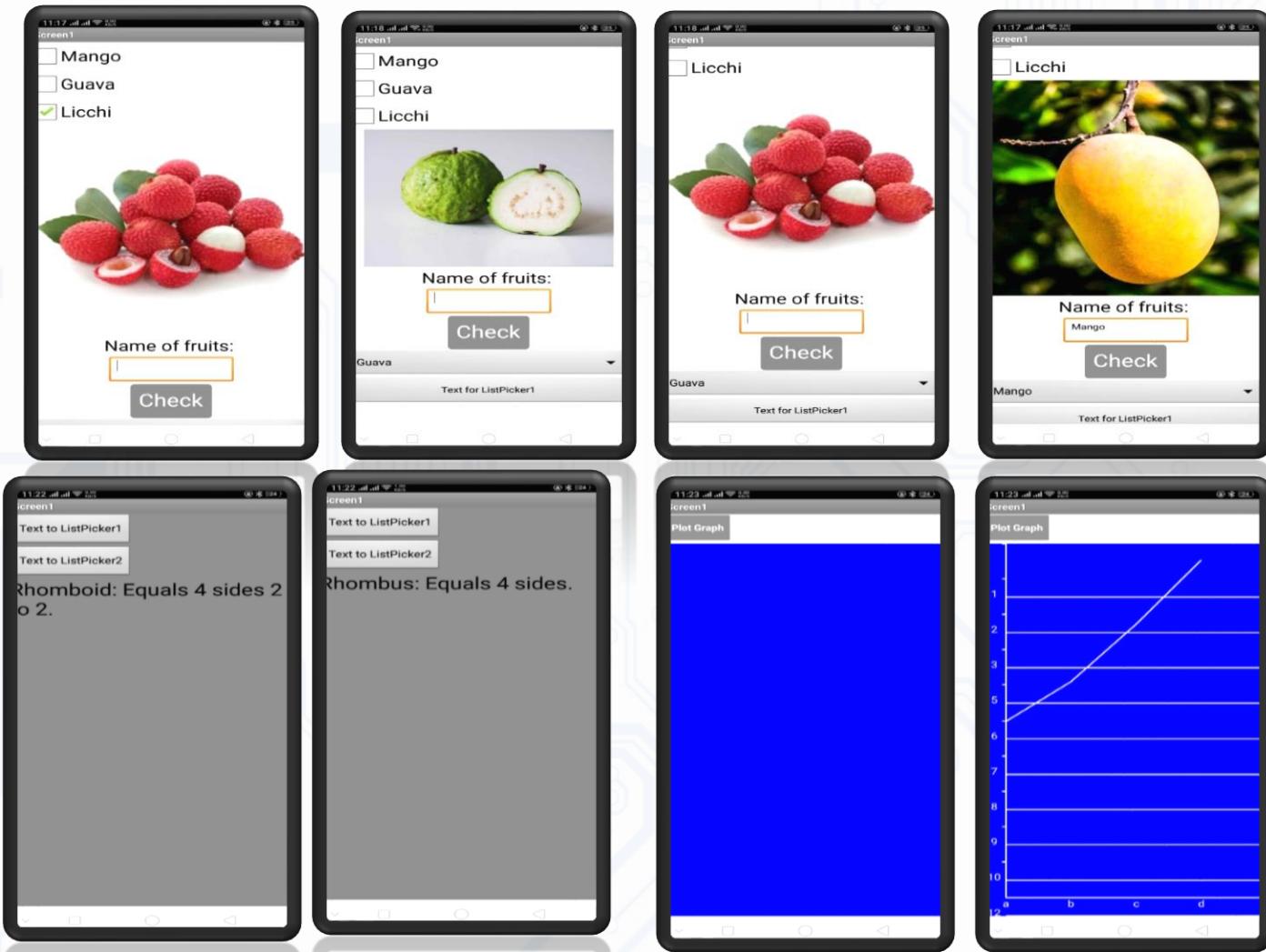


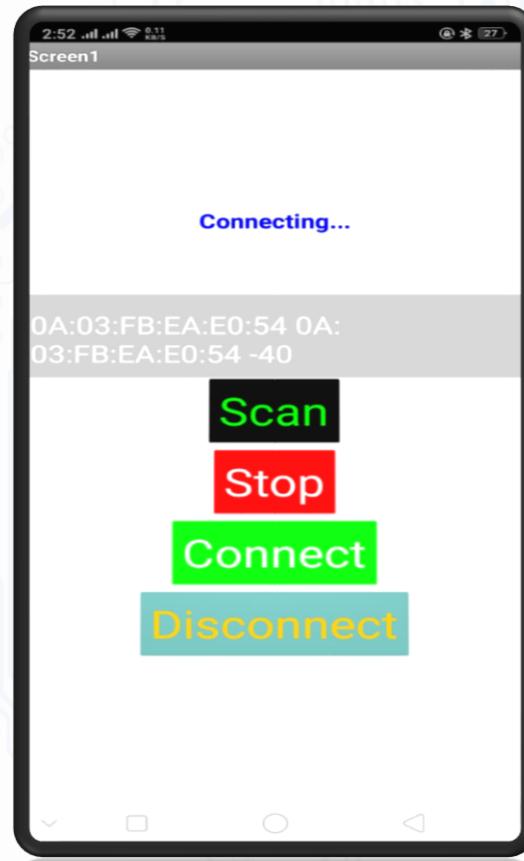
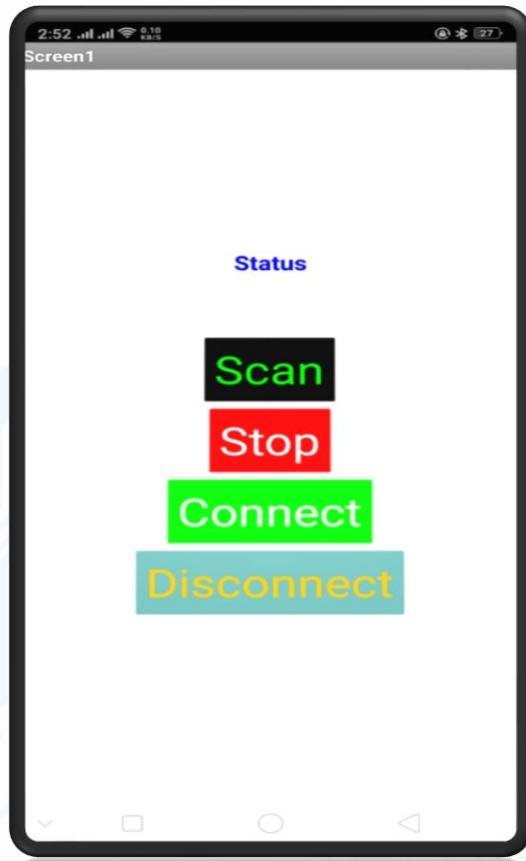
Task_Question-15





Task_ Question-17







Task_ Question-16

- Follow and repeat all example based on our ppt format and send on time (**Lecture no: 25**)
- Do the extensities as the separate example
 - ▶ Example01: Guess the number
 - ▶ Example 02: Russian Roulette
 - ▶ Example 03:Minesweeper
 - ▶ Example 04:Three equal
 - ▶ Example 05: Odd / Even. Multiple of 4. Divisors of a number.
 - ▶ Example 06:Divisors of a number
 - ▶ Example 07:Rock, paper, scissors.





Aim of task:

Example 01:

- There is one button for randomly show 1 to 100 numbers.
- Then we introduce a number in the TextBox and press the Button Is This?
- The program will answer us if the number is created equal, greater or lesser than we have introduced

Example 02:

- There are 6 buttons (6 bullets)
- The program will answer us if the number is created equal, greater or lesser than we have introduced.
- The program will answer us if the number is created equal, greater or lesser than we have introduced

Example 03:

- It is similar to example 02. But there is something kind of modification.
- Let's modify a bit the Design and blocks, but keep the style. - Press the button "Start", 6 random numbers (which only have two values: 0 or 1) will be created.
- The user pressed the buttons. If the pressed button has a corresponding variable to 1, we will have a mine and the screen is colored red.

Example 04:

The main goal here is to show the results when the 3 images match when press the button.

Example 05:

- The goal of creating this app is to determine even numbers and odd numbers.
- If to divide a number by 2, the remainder is zero, that is even, otherwise it is odd.

Example 06:

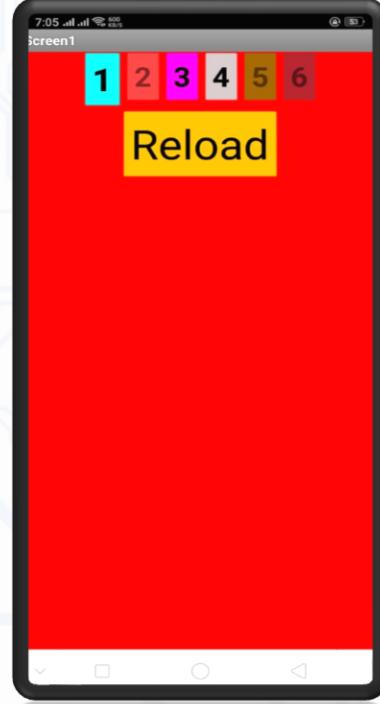
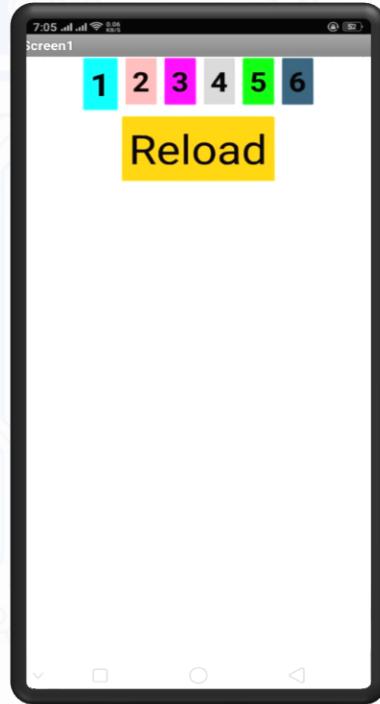
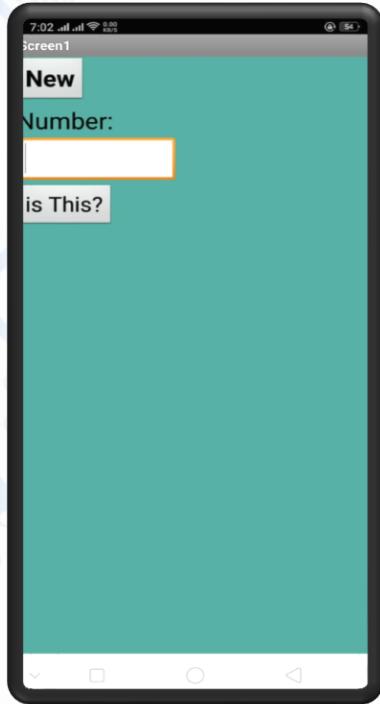
Its design looks like the previous example. Here is actually input any digit, then the divisors of that number, separated by a hyphen.

Example 07:

Here is the game of rock, paper, scissors. When the user press a button mobile puts a picture in the picture above, as are the drawings of mobile and player, so will be the result .



Task_ Question-16



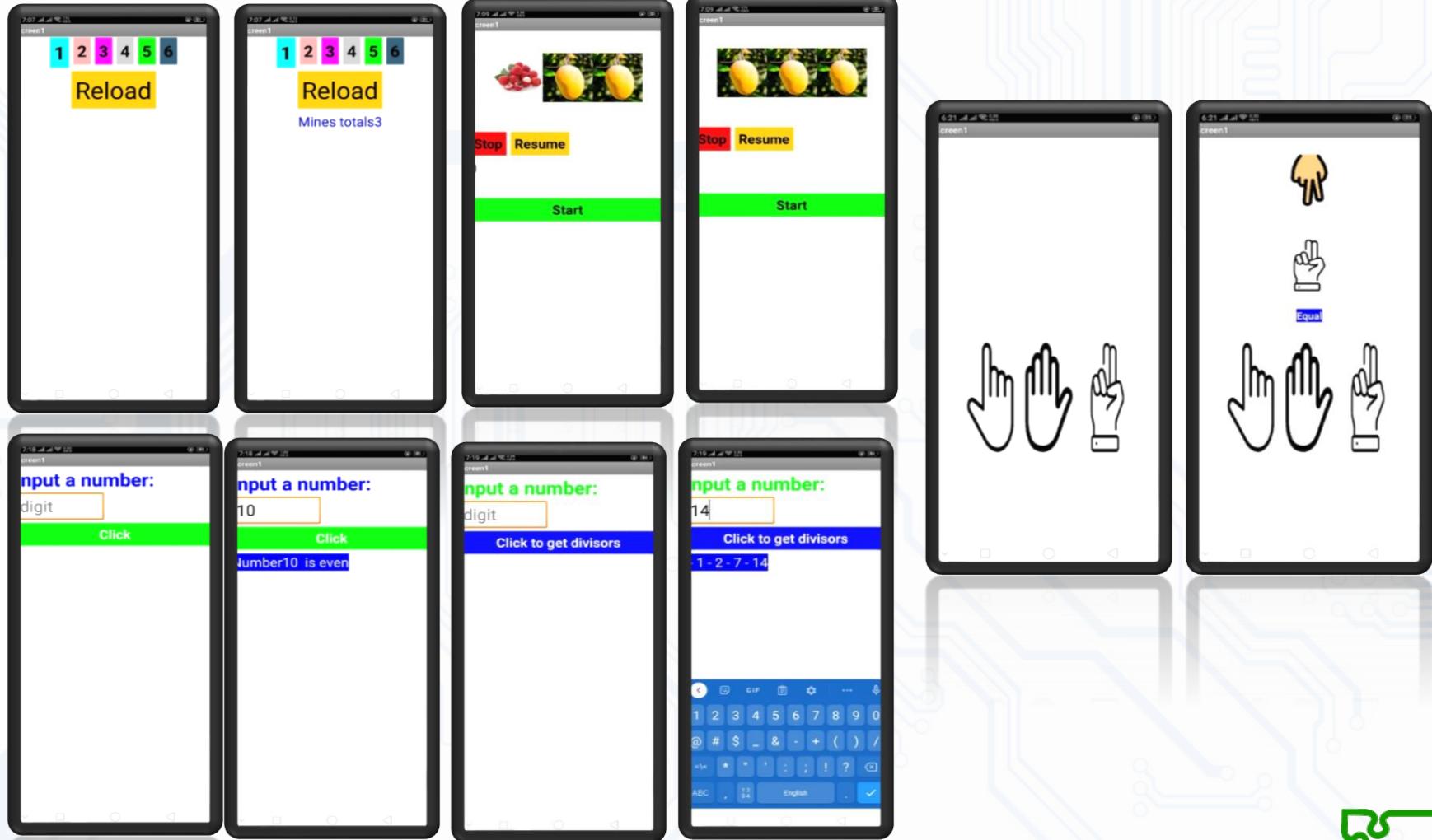
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App Inventor



Task_ Question-16



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App Inventor



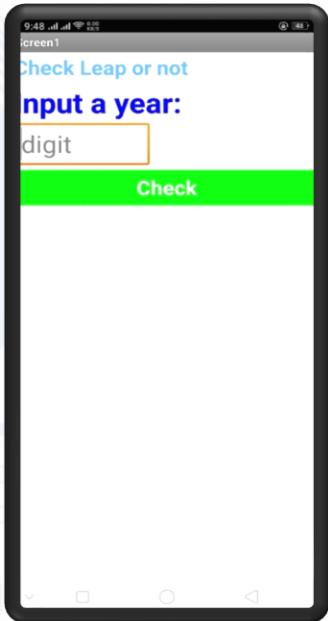
Task_ Question-16

- In previous example no 04, the goal is to make a label to show the pictures 3 times or 2 times equal or not. If it is equal, so it shows the SUCCESSFUL. Otherwise not.
- And another example 05 is for make leap year system base one previous example.





Task_ Question-16





Flutter Task_Extra

- The student who repeat the example in this ppt have extra mark
- GOOD chance for student who didn't send the GTASK





Student Task_AA

- Repeat this examples and make based on our task format
- Make process video for all
- In temp(example 3): $C \rightarrow f , F \rightarrow C$
- (example 6 and extension part): Try to combine the example 1 and 3(web data base and temp) and send your data to web , the conversion of temperature should monitor on web page part





Student talk and demo app

- APP Inventor and IOS

Aim: Running the Android code on IOS

- APP Inventor and JAVA

(JAVA Bridge)

- APP Inventor and AI

(AI dance)

- APP Inventor and image Classification

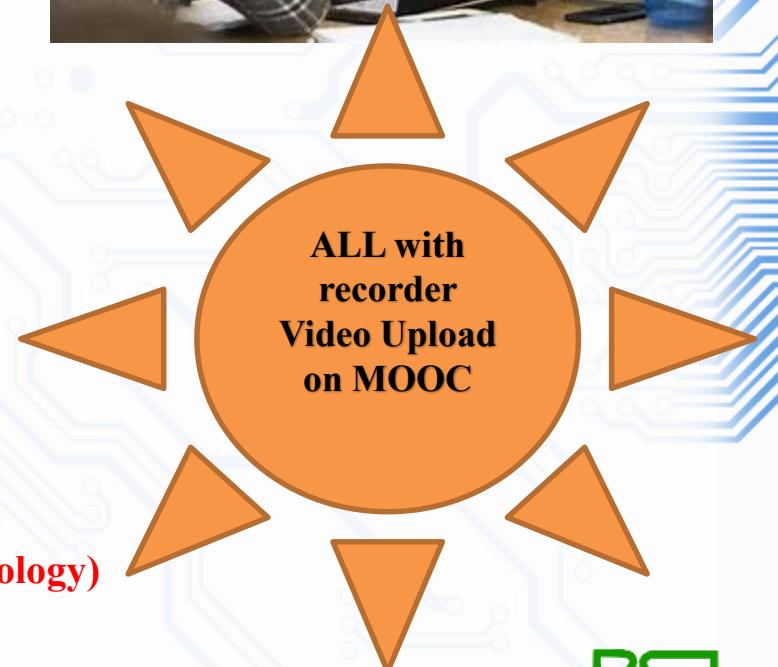
APP and Image Classification

- APP Inventor and Voice recognition

(Voice Calculator)

- APP Inventor and Face recognition

(Face Mesh Filter Camera and detection system in AI technology)





Exam paper arrangement



- **Part (A) :Total marks (30)**

Attempt all the multiple-choice question each, marks (0.75)/question.

- **Part (B): Total marks (10)**

write the short note on below question :

- **Part (c): Total marks (30)**

answer 3 out of 6 questions: each question 10 mark,

- **Part (D): Total marks (30)**

The design section

Part (D): You should copy question and aim the block and UI design as the answer(print screen)

Send : The AIA file +TASK format PPT (flowchart, demos, clips all) zip files with your name and id number



Whole Paper contain all answer should send in PDF file and with the good arrangement on time

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40





DIP 2021_B

student name	ID number	Topic	Accept (Y/N)
B M Morshed Sayeed	2520190007	Email sender AI assistant	Y ok
Amir Sohail Khan	2520190018	PICaboo Game (image classifier)	Y ok
Md Fahim Shahriar	2520190006	Weather info App	Y ok
Mia Md Shamim	2520190004	Home Automation using Bluetooth	Y ok
Nafiz Md Imtiaz Uddin	2520190011	Human face emotion(image classification system)	Y ok
Obiri Ahimah	2520190026	Shop with friends while sharing the shopping data	Y ok
Sheikh Fahad	2520190017	Coloured Dots.	Y ok
HERFEY GLEEN JARHED HERFEY	2520190032	To design an app that tracks our movements within a geographical area on a map	Y ok
NafeelBaqai	2520190016	To design an app that take your picture and show it on canvas and can share it via email	Y BUT need more option
Napolean K Dixon	2520190057	Mapping the Campus	Y write more about APP
Ryan Shingrai Risinamhodzi	2520190031	Broadcast Hub	Y ok
Tejendra_Singh_Bhandari	2520190033	Chinese Language App	Y ok
Tinotenda Tazvitya Mahofa	2520190003	Android where is my car	that was in GTASK if I didn't give it before to you ok
Umesh Bhandari	2520190034	Where is North?	Y ok but add more option
VICTOR MITI	2520190001	TO EDUCATE AND TEST KIDS AND ANYONE LEARNING THE ENGLISH LANGUAGE.	Y ok
GOLAMUR RAHMAN	2520190029	OWN ALARM CLOCK	M its simple need more option
SAJEDUZZAMAN	2520191004	Making FRUIT NINJA GAME	Y need more option like sound
Fazal Hussain	2520190021	displaying locations on a map	Y ok
SIAM	2520190028	Health checking application	Y list the item that you want to gather and also the methode?
Debashis Mazumder Bappi_	2520190015	AI Voice Assistant/chatbot	you should add more option otherwise morshed talk about it
Hafiz Kiakhr Sarkhai	2520190023	To design an app to check out weather condition	Y BUT need more option add sound and more ...





Exam date

- **23 December**
- **10:20 Am Beijing time**
- **11:40 Am Beijing time**





Tencent Meeting



Attendees (15)	
Search for attendees	
	Dri阿塔 (Host, Me)
	*Nafiz_Md_Imtiaz_Uddin~ID:2520190011
	Amir(阿米尔)
	B.M.MorshedSayeed(赛义德)
	Fahim2520190006
	FazalHussain2520190021
	GLEENJARHED-0032
	NafeelBaqai
	Napoleon057
	SheikhFahad0017
	TejendraSingh0033
	Tino0003
	MIA MD SHAMIM(沙米姆)-0004
	Umesh-0034
	Hafiz_2520190023



Mute All Unmute All More ▾

10:26 AM
12/16/2021



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



App Inventor



**"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