

Step #1:
In the Designer view,
check all the
components & media

Spin-Tales
of
Fortune

Step #2:
Use the instructions
written overleaf to
create the code-blocks

Step #3:
Connect to your companion
app to simulate
& build



Maybe Yes

Remember

Each sprite has it's own set of instructions that are created using the the code blocks attached to form a sequence which gives a desired output.

Smart working:

Every-time you add a few lines of code, keep playing your project to check the sequence of your animation and sprites

Script for the Spin Tales of Fortune

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initialize global spin to 0

when Screen1.Initialize

do

- set rotationClock.TimerEnabled to false
- set global spin to 0
- set ResetButton.Text to "Touch to Reset"

when wheel.Touched

x y

do

- set ResetButton.Text to " "
- set global spin to $\text{get global spin} + 75$
- set rotationClock.TimerEnabled to true

when rotationClock.Timer

do

- set wheel.Heading to $\text{get global spin} + \text{wheel.Heading}$
- set rotationClock.TimerInterval to $\text{rotationClock.TimerInterval} \times 0.1$
- set global spin to $\text{get global spin} \times .99$
- if $\text{get global spin} > 75$ then set global spin to 0
- if $\text{get global spin} < 0.5$ then set global spin to 0
- set rotationClock.TimerEnabled to false
- set ResetButton.Text to pick a random item list
 - make a list
 - "Definitely Yes"
 - "Definitely No"
 - "Concentrate and ask again"
 - "Maybe Yes"
 - "Maybe No"
 - "Better not tell you now"
 - "Outlook good"
 - "Dont count on it"

when ResetButton.Click

do

- set rotationClock.TimerEnabled to false
- set global spin to 0
- set ResetButton.Text to " "

Introduction to MIT App Inventor platform



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learning to code, the moral way

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Dear Parent,

Welcome & congratulations for enrolling your child into the Code Tales[®] home learning program.

Teamwork and Strategies

It is also very important that you as a parent become part of this education platform that makes a difference in your child. Your key responsibility is to let us know if there are any challenges on this path so that we can discuss them.

Coding -The 'New Age' digital literacy

Code Tales is a detailed curriculum with step-by-step guidance to engage and motivate our students' interest in coding and moving from being 'Consumers' to 'Creators' of Internet. It is a hands-on learning guided exploration method which is age-appropriate that teaches them to question what they know and explore what they do not yet understand.

Each Subscription helps the child with:
Logical reasoning & Looking for Patterns
Modelling & Simulation
Test Hypothesis
Algorithmic Efficiency & Organizing data

Exploration happens in 4 Stages:
Define Problem
Create Logic
Build Structure
Code for Output

Please follow the steps mentioned below to access the coding platform to enable your child to start creating applications

01 - Creating your online account on MIT App Inventor website

MIT App Inventor is an intuitive, visual programming environment that allows everyone - including children - to build fully functional & release worthy apps for Smartphones (Android) and tablets.

Step 1:

Click the Link: MIT App Inventor Online Editor (<https://appinventor.mit.edu/>)

Step 2:

On the home page of MIT App Inventor, click on the 'Create Apps!', orange colored button located at the top ribbon next to the website logo.

Step 3:

Login to the MIT App Inventor website using your personal google Gmail account.

You will be directed to the home page of the MIT App Inventor website. You can choose to close the pop-ups after checking the 'Do Not show again' checkbox.

Having a personal Gmail account is a pre-requisite for the Sign-In to complete for using the MIT App Inventor online editor.

(In case you don't have a google Gmail account yet, you can also use your parents Gmail account to log-in but we strongly suggest you create one.

Create your new google Gmail account by visiting [Gmail | Create a New Account](#)

In case of any issues or queries regarding the Sign-up, please do not hesitate to contact us at +91 9821092796

Pre-requisites for the MIT App Inventor course: A PC / Laptop; Android / IOS phone; Internet connection; a Gmail account

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02 - Installing MIT AI2 Companion App on your phone / tablet

MIT AI2 companion app is required for live testing of your app as you build & code the same on the Online Editor you signed up for in the previous step.

The companion app also is used to build the app onto your phone once the code is complete. A built mobile app can be accessed anytime without the connection with the Online editor. It's as good as any other app you have downloaded from the Play store / IOS app store.

Step 1:

Using an Android phone, open Google Play Store. (IOS users can access the App Store to download the same)

Step 2:

Search & download the MIT AI2 Companion App in your Google Play Store / MIT App Inventor in IOS App Store.

Google Gmail Play store belong to Google Inc. Also MIT App Inventor is powered copyrighted 2012-2021 Massachusetts Institute of Technology.)



MIT AI2 Companion

MIT Center for Mobile Learning Education

Everyone

This app is available for all of your devices



Congrats! you are now one step closer to connecting your Companion App & live testing your App projects which you will code in the Online MIT App Inventor editor.

03 - Making your first basic mobile app

Let's start with making our first mobile app. The purpose of this exercise is to introduce you to the parts & workings of the coding platform

What will this app do : -

The app screen will have a clickable button and background color of the app is yellow.

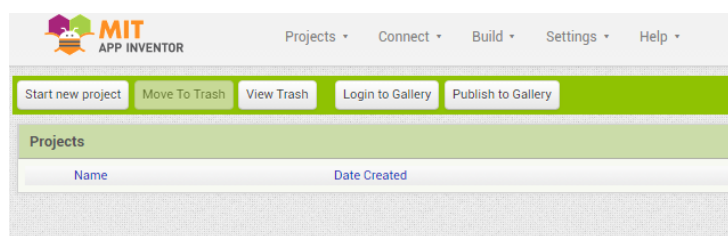
When the user clicks the button , the background color of the app changes from yellow to green

Step 1:

Login into your MIT App Inventor Online account by clicking the link below: MIT App Inventor Online Editor (<https://appinventor.mit.edu/>)

Step 2:

The dashboard is the first screen that opens up as you Sign-in to your account. The dashboard provides you with the list of all the projects you are currently working upon. Click on 'Start new project'. This should open a new pop-up which will ask you to name your new project app.



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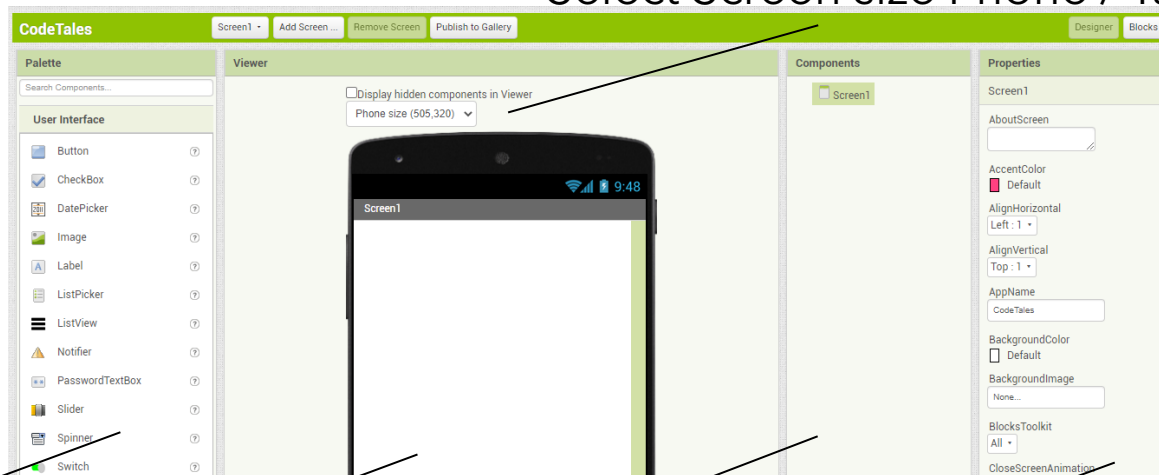
Step 3:

Once you have named your new app, the online editor opens the 'Designer' view of your app.

Designer View is the part of the Coding platform that helps you build the layout of your Mobile App - how the app looks for a User & also Select and place all the required components of your App.

AppName

Select Screen size Phone / Tablet



Palette

List of Components to add into your App. Components help User to interact with the App. They can be visible or non visible on App screen.

Viewer

Drag components from Palette here to see how your app will look like. Screen layout, design etc. can be seen in this section.

Components

Selected components shown in as hierarchical list

Properties

Select a Component from the list. You can modify it's properties like Color, Size, Text, Alignment etc.

Step 4:

Lets Add our first component into our app. From the User Interface on the left side of the screen, click and drag the Button component onto the Viewer portion of the screen.

Once you drop the Button onto the middle of the phone viewer, you will see the button places itself automatically towards the top left of the Phone screen.

Also in the Components portion of the screen, you will see a 'Button1' getting added underneath the Screen1.

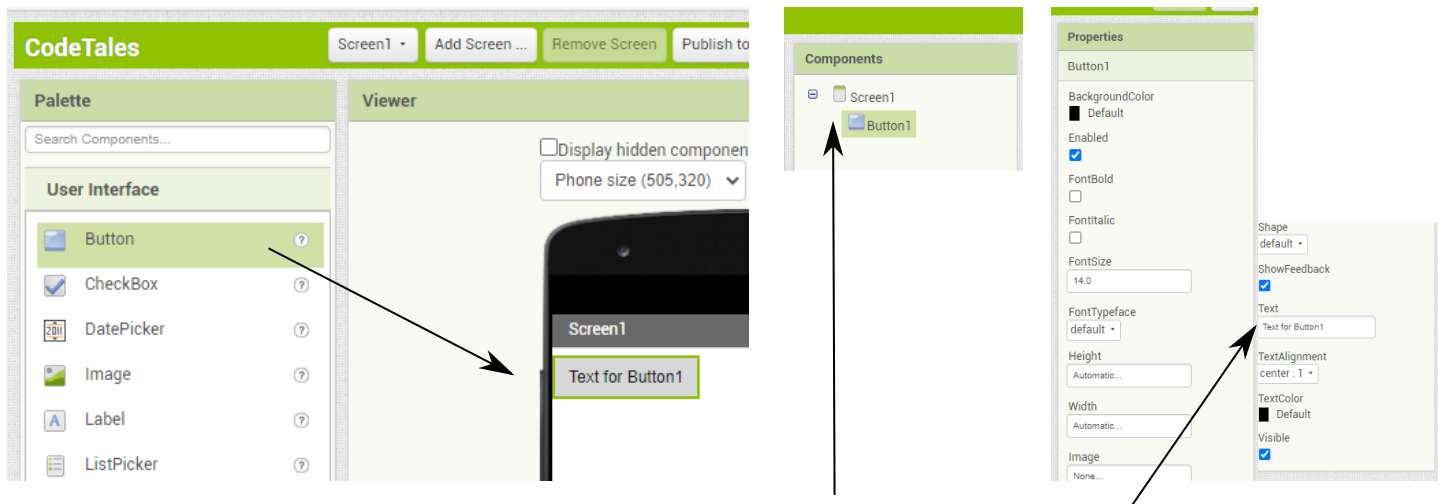
Select the Button1 from the Components portion

Once the Button1 is selected, check out the properties of this button. In the Properties area, you can change the looks of any selected component.

Lets change the text which is written in the Button1 currently. Edit the Text section under the Properties section and change the default text to 'Click Me'.

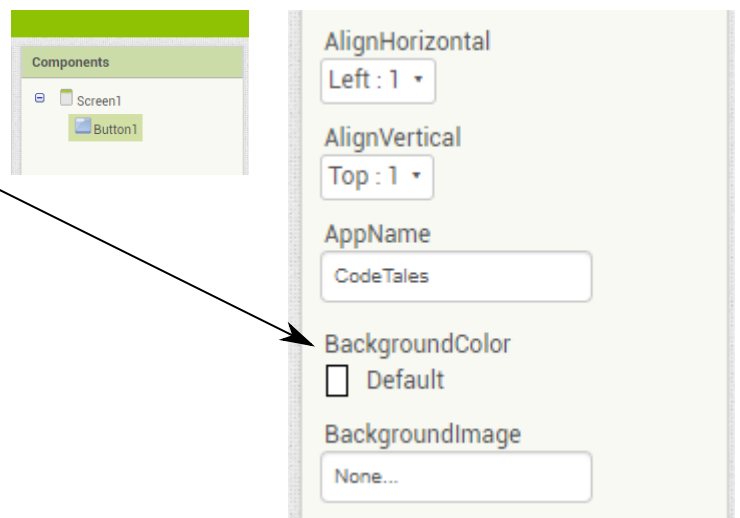
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- First
Click -Drag -Drop the Button component from the Palette section into the Viewer
- Second
Select Button1 from Components
- Third
Change Text propert of Button1 to 'Click Me'

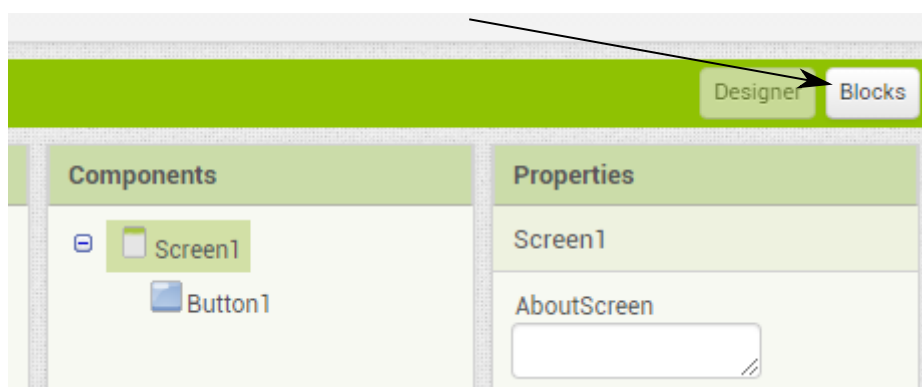
- Fourth
Similarly select Screen1 from the components list & change its BackgroundColor in the Properties Section to Yellow



Step 5:

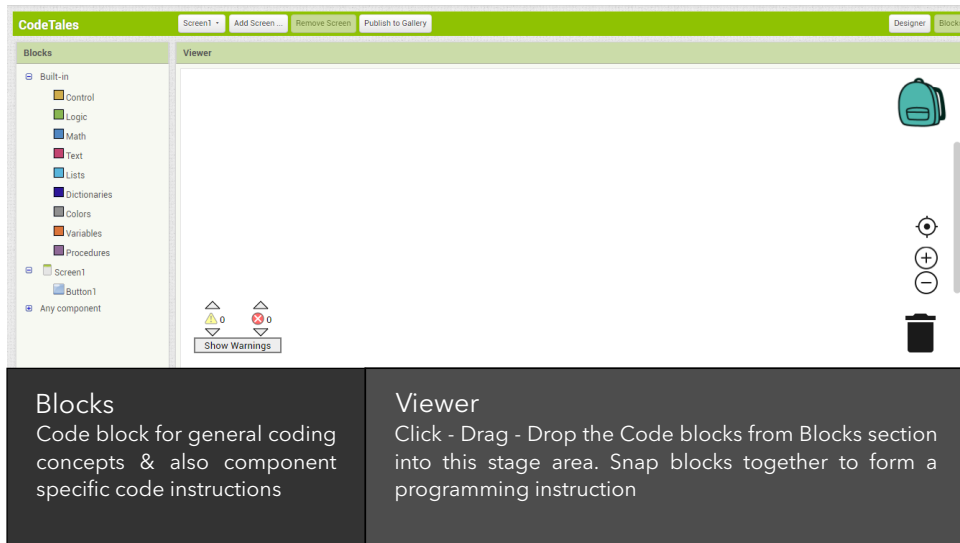
Select the 'Block' view from the top green ribbon

The Blocks section contains the Coding blocks that will help us to build interactivity into our app. This is the place where you would be doing the actual coding of the components you added in the Designer View.



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Step 6:

Select the 'Button1'.

The Code blocks for the Button1 component open up in a window. This section includes all the code instructions for using the component to create the User experience and behavior.

Drag & drop 'When Button1. click do' block into the stage viewer area.

Step 7:

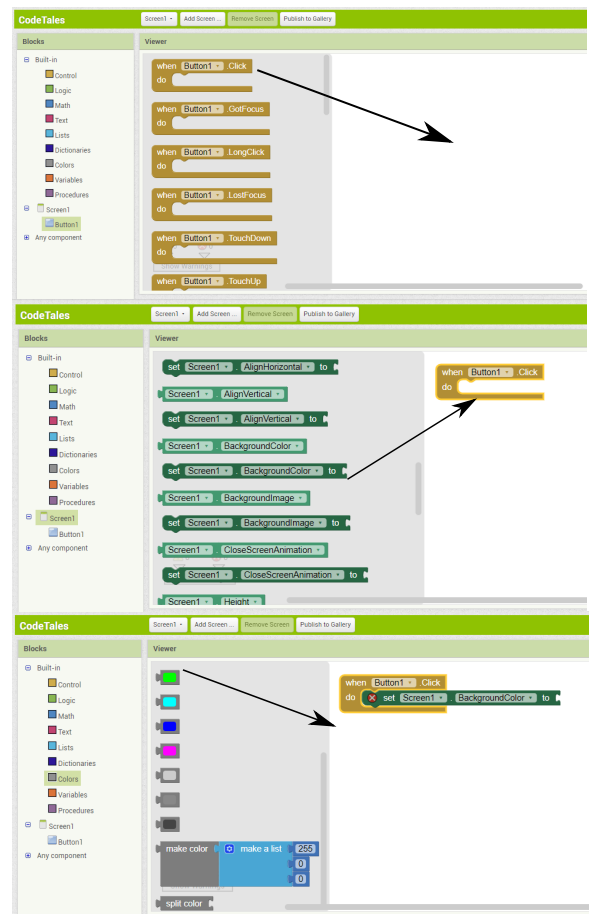
Select the 'Screen1' in the Blocks section.

Drag & drop 'Set Screen1.BackgroundColor to' block and snap it within the 'When Button1. Click do' block.

Step 8:

Select the 'Color' in the Blocks section .

Drag, Drop and Snap the Green color block into the 'Set Screen1.BackgroundColor to' block so that both fit magnetically.



Final Code for your first Mobile App will look like this



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04 - Live Testing your App on your Mobile / Tablet

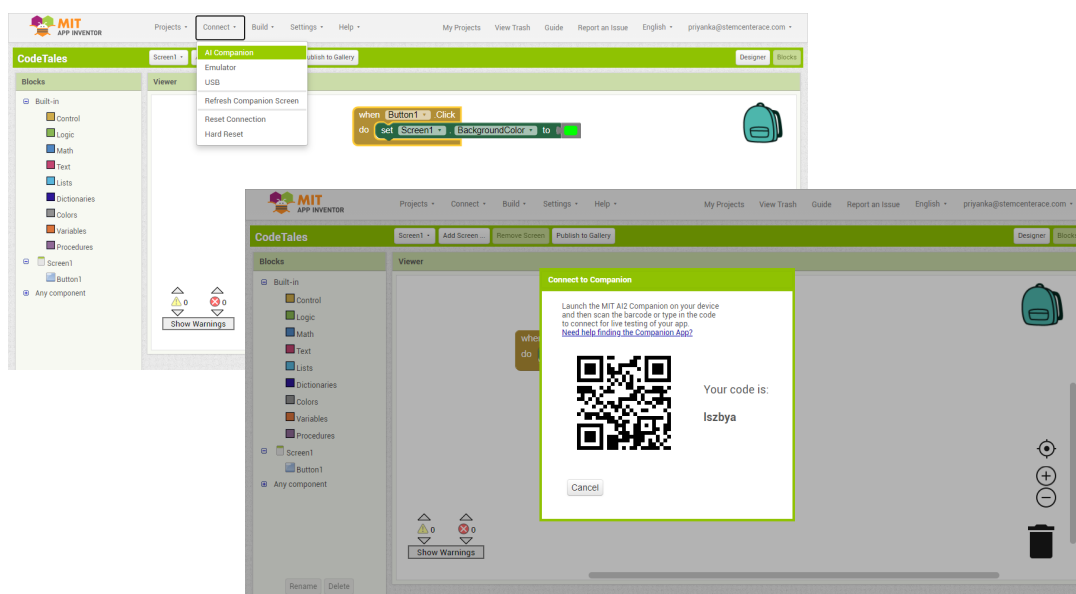
It's time for us to test the working of our App. For this we would need you to have the Phone ready with you. The phone ideally should be connected to the same Wi-Fi as your Laptop for faster simulation.

What we will do :-

We are going to connect our Online-editor with the MIT App Inventor Companion App which was previously installed on your Phone / Tablet.

Step 1:

Click 'Connect' tab on the top of the Online editor and Select Connect with AI Companion option. This will create a pop up window on the center of your screen which will have a QR Code.



Scan this QR Code with your MIT App Inventor Companion App & wait for the connection and App to load on your Mobile / Tablet screen. You are now good to go !

05 - Permanently Build the App onto your Mobile / Tablet (Only for Android Phones. iOS build version coming soon !

Click the 'Build' Tab on the top of the Online Editor Dashboard and select the 'App (provide the QR code for .apk) option.

Scan the generated QR code to get the link for downloading & installing your mobile app.

You will have to allow download from Unknown sources option selected in your Phone settings to be able to install this .apk file.

Ignore the warning message generated by the Google Play store and select ' Install Anyway'

