

APP

INVENTOR



APP INVENTOR

Create a Quiz application aimed at promoting the awareness of energy conservation.

APP INVENTOR

Designer

https://appinventor.mit.edu

MIT APP INVENTOR

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Anyone Can Create iPhone and Android Apps with Global Impact

Get Started

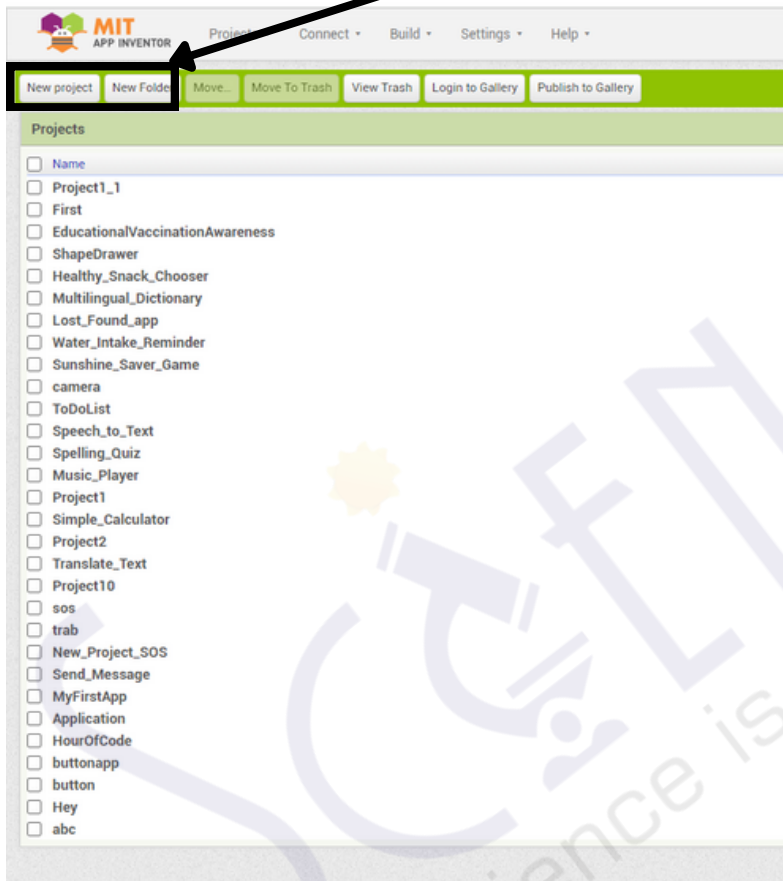
USERS TODAY:	USERS THIS MONTH:	ALL-TIME USERS:	APPS BUILT:
13.64 K	651.59 K	18.1 M	85.4 M

Click on **Create Apps**

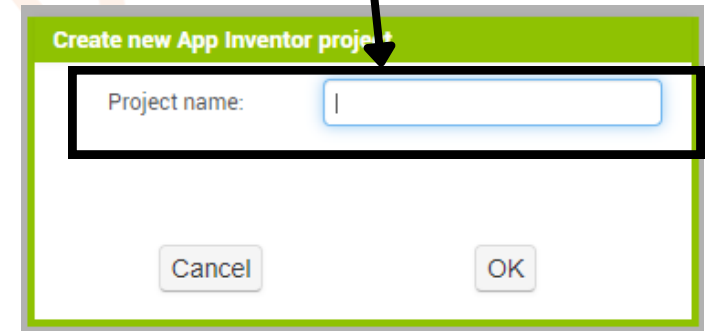
APP INVENTOR

Designer

Click on **New Project**



Provide a name for Project (without space) and click on **OK**



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Designer

Screen 1 - Place where we define the structure of the APP



APP INVENTOR

Designer

Palette

Search Components...

User Interface

- Button
- CheckBox
- DatePicker
- Image
- Label**
- ListPicker
- ListView
- Notifier
- PasswordTextBox
- Slider
- Spinner
- Switch
- TextBox
- TimePicker
- WebView

Layout

Media

Drawing and Animation

Maps

Charts

Data Science

Sensors

Social

Storage

Connectivity

LEGO® MINDSTORMS®

Viewer

Display hidden components in Viewer

Phone size (505,320)

Android 5+ Devices (Android Material)

Screen1

Label1

Text for Label1

Rename Delete

All Components

Screen1

Label1

Properties

Label1 (Label)

Appearance

BackgroundColor

None

FontBold

FontItalic

FontSize

14.0

FontTypeface

default...

HTMLFormat

HasMargins

Height

Automatic...

Width

Automatic...

Text

Text for Label1

left: 0

TextColor

Default

Visible

Media

Upload File ...

In Palette, choose and drag **Label** to **Screen1**

Add a question related to Energy conservation here

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Designer

The image shows the App Inventor Designer interface. On the left is the **Palette** with various UI components. The **Switch** component is highlighted with a black box and an arrow pointing to a yellow callout box. In the center is the **Viewer**, which displays a mobile device screen with a blue header labeled "Screen1" and a text field containing "Text for Switch1" next to a switch. A black box highlights the text field, with an arrow pointing to another yellow callout box. On the right is the **Properties** panel, where the **Text** property for "Text for Switch1" is highlighted with a black box and an arrow pointing to the same yellow callout box.

In Palette, choose and drag **Switch to **Screen1****

Change text to **Switch for Light**

APP INVENTOR

Designer

The image shows the App Inventor Designer interface. On the left is the **Palette** with a search bar and categories like User Interface, Layout, Media, Drawing and Animation, Maps, Charts, and Data Science. The **Image** component is highlighted in the User Interface section. In the center is the **Viewer**, which displays a mobile screen titled 'Screen1' with a question and a toggle switch. A small image icon is placed on the screen. On the right is the **Properties** panel, which shows settings for the selected 'Image1' component, including Appearance, Clickable, Height, Width, Picture, RotationAngle, ScalePictureToFit, and Visible (checked).

Project1_1

Designer

Screen1 - Add Screen ... Remove Screen Project Properties Publish to Gallery Designer Blocks

Viewer

☐ Display hidden components in Viewer

Phone size (505,320) ▼

Android 5+ Devices (Android Material) ▼

Screen1

Label1

Switch1

Image1

Properties

Image1 (Image)

▼ Appearance

AlternateText ^(?)

Clickable ^(?)

Height ^(?)

Width ^(?)

Picture ^(?)

RotationAngle ^(?)

ScalePictureToFit ^(?)

Visible ^(?)

Media

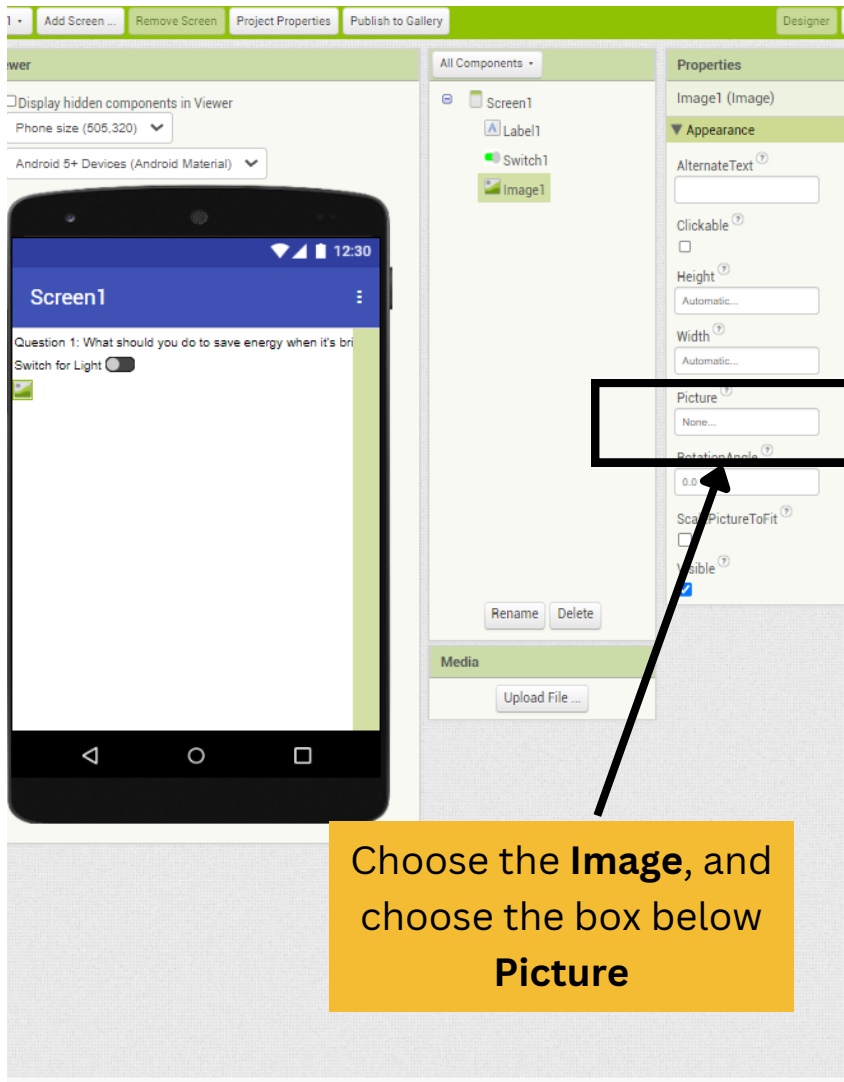
Upload File ...

Rename Delete

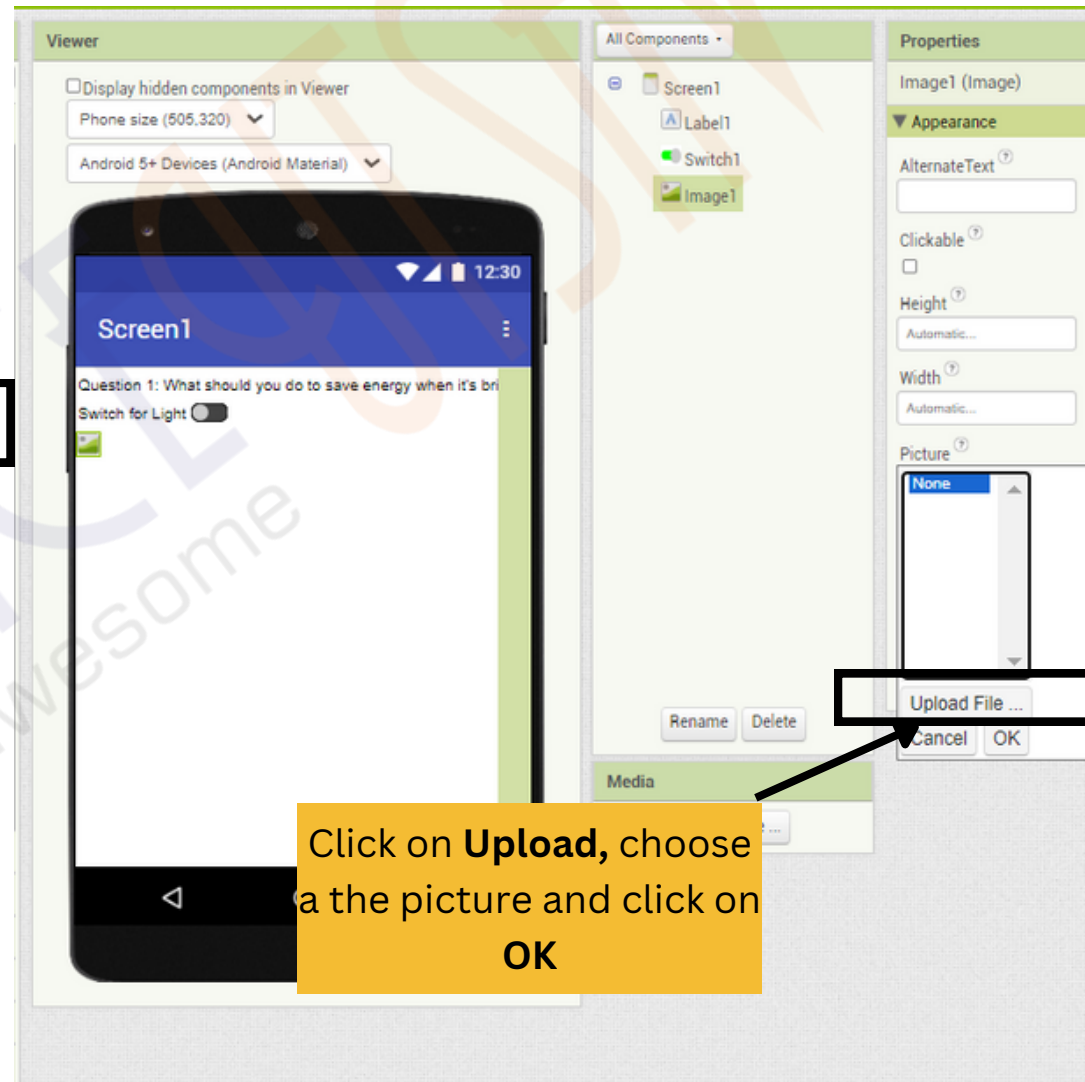
In Palette, choose and drag **Image** to **Screen1**

APP INVENTOR

Designer



Choose the **Image**, and choose the box below **Picture**



Click on **Upload**, choose the picture and click on **OK**

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Designer

The screenshot shows the App Inventor Designer interface. On the left is a mobile app preview for 'Screen1' with a question: 'Question 1: What should you do to save energy when it's bright?'. On the right is the 'Properties' panel for 'Image1 (Image)'. The 'Appearance' section is expanded, and the 'Height' and 'Width' fields are highlighted with a black box. Below the screenshot is a yellow text box with the following text:

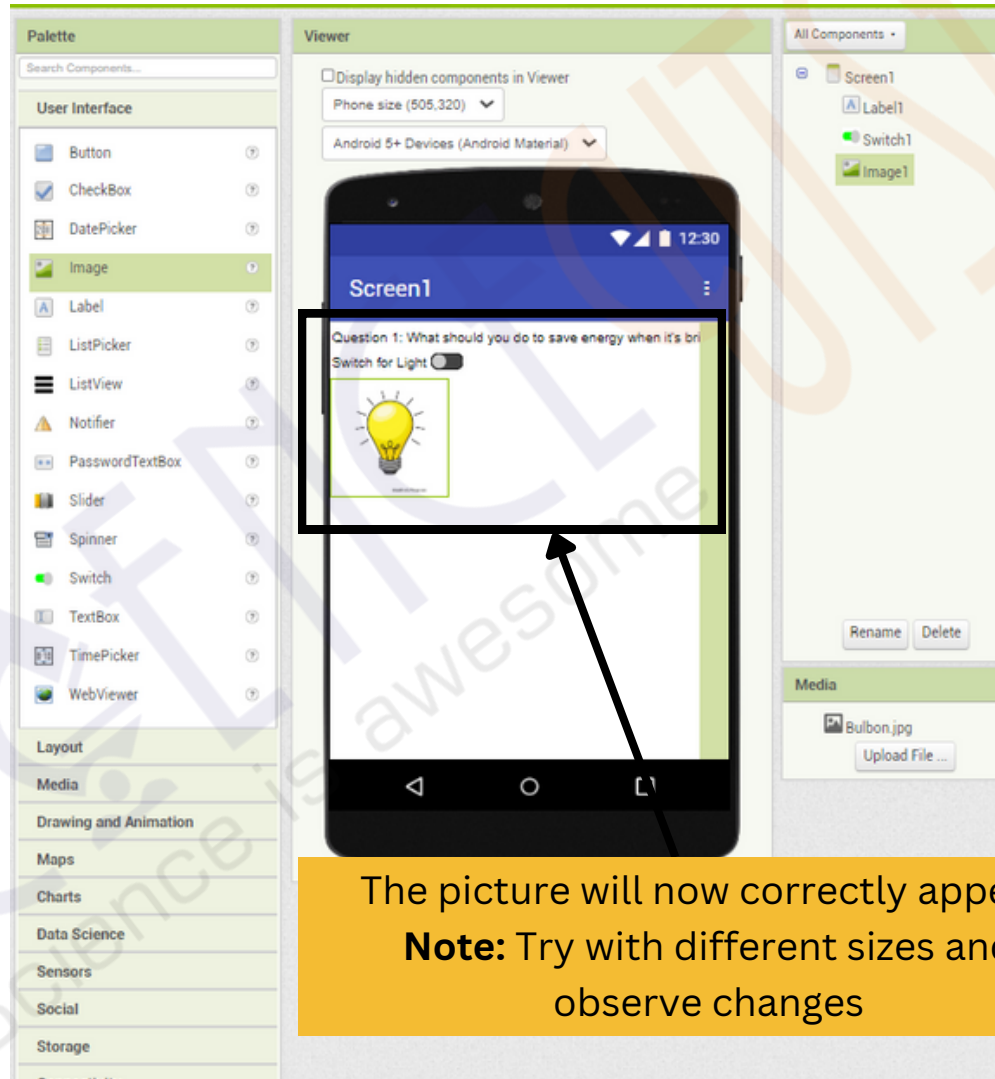
The uploaded image looks like this, so we adjust its size using **Height** and **Width**

The screenshot shows the App Inventor Designer interface. On the left is a mobile app preview for 'Screen1' with a question: 'Question 1: What should you do to save energy when it's bright?' and a 'Switch for Light' toggle. On the right is the 'Properties' panel for 'Image1 (Image)'. The 'Height' field in the 'Appearance' section is highlighted with a black box, and a dialog box is open showing '100 pixels' entered. Below the screenshot is a yellow text box with the following text:

Click on the box below **Height** and add **100 pixels** and click on **OK**. Repeat the same for **Width**

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Designer



The picture will now correctly appear.

Note: Try with different sizes and observe changes

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Designer

Add more options for your question

The screenshot displays the App Inventor Designer interface for a project named "Sunshine_Saver_Game". The central "Viewer" pane shows a mobile app screen with a blue header "Energy Saver Game" and a question: "Question 1: What should you do?". Below the question are two options: "Switch for light" (with a lightbulb icon) and "Switch for curtain" (with a curtain icon). A black box highlights the "Switch for light" option, and an arrow points from the text "Add more options for your question" to this box. The interface includes a "Palette" on the left with various UI components like Button, CheckBox, Image, and Switch. On the right, there are "All Components" and "Properties" panels. The "Properties" panel for "Screen1 (Form)" shows settings for appearance, animation, and media.

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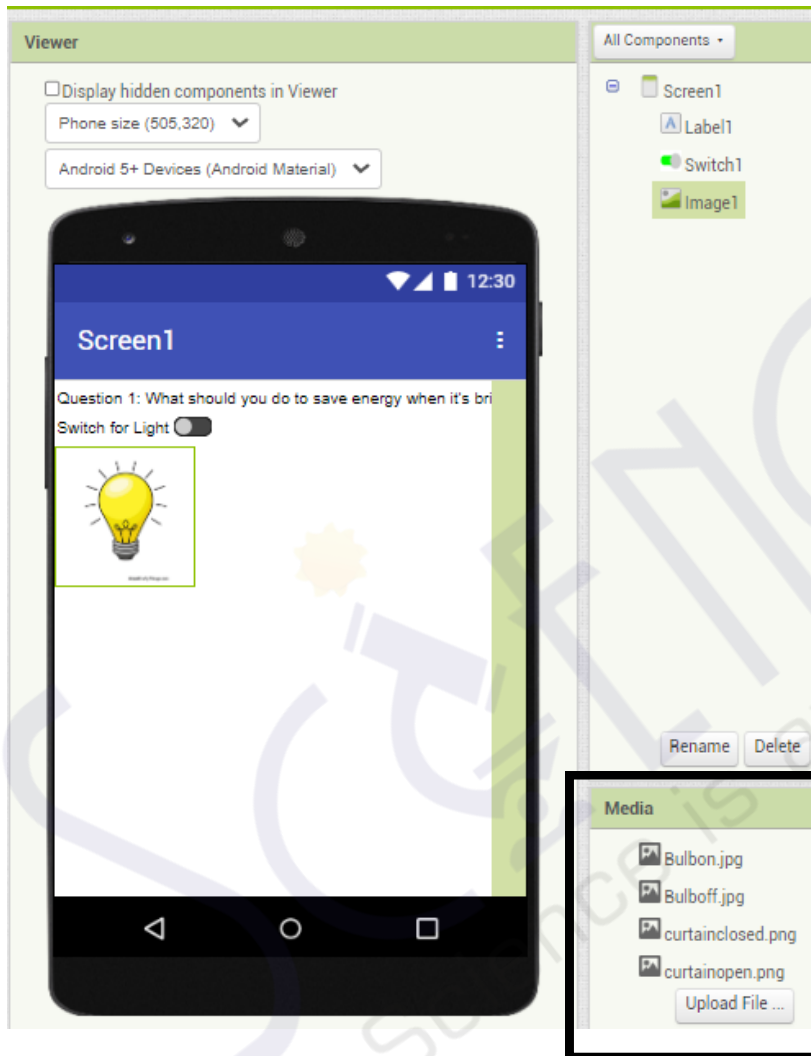
Designer

Add more such questions to your application, one per screen

The screenshot displays the App Inventor Designer interface for a project named "Sunshine_Saver_Game". The central "Viewer" area shows a smartphone mockup of the application. The application screen has a blue header with the text "Energy Saver Game". Below the header, there is a question: "Question 1: What should you do?". Underneath the question, there are two toggle switches: "Switch for light" and "Switch for curtain". Below the switches, there is a lightbulb icon and a curtain icon. At the bottom of the screen, there is a "Check" button. The top toolbar of the designer includes buttons for "Screen1", "Add Screen...", "Remove Screen", "Project Properties", and "Publish to Gallery". The "Add Screen..." button is highlighted with a black box and an arrow. The left sidebar shows a "Palette" with various UI components like Button, CheckBox, DatePicker, Image, Label, ListPicker, ListView, Notifier, PasswordTextBox, Slider, Spinner, Switch, TextBox, TimePicker, and WebViewer. The right sidebar shows "All Components" and "Properties" for the selected screen.

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All the images required can be uploaded by clicking on the **Upload File** button

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Block - Screen1

The screenshot shows the App Inventor interface. On the left is the 'Blocks' palette with categories like Built-in, Control, Logic, Math, Text, Lists, Dictionaries, Colors, and Variables. The 'Screen1' block is selected in the 'Built-in' category. On the right is the 'Viewer' area showing a list of event blocks for 'Screen1', including BackPressed, ErrorOccurred, Initialize, PermissionDenied, PermissionGranted, and ScreenOrientationChanged. The 'when Screen1.Initialize do' block is highlighted with a black box. A yellow tooltip for this block reads: 'The Initialize event is run when the Screen starts and is only run once per screen.'

From Blocks, choose **Screen** and select and drag **when Screen1.Initialize do** block

This is a close-up view of the 'Viewer' area. A 'when Screen1.Initialize do' block is highlighted with a black box, indicating it is being dragged into the workspace.

Drag the block to **Viewer Area**

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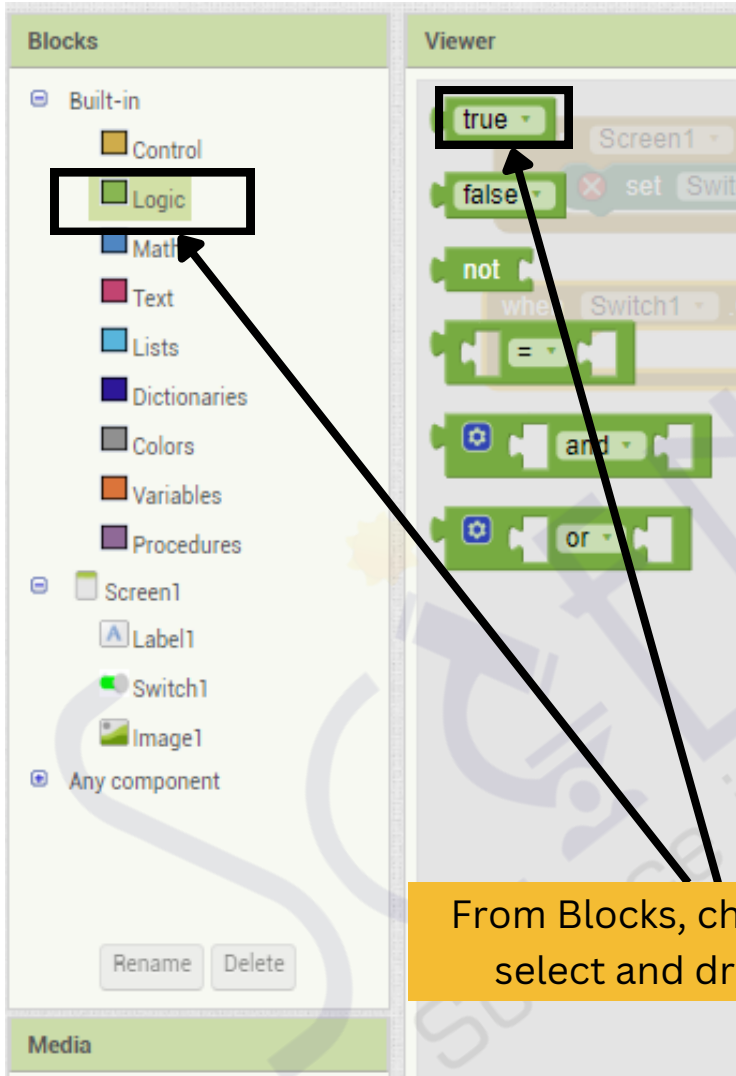
Block - Screen1

From Blocks, choose **Switch1** and select and drag **set Switch1 On to** block

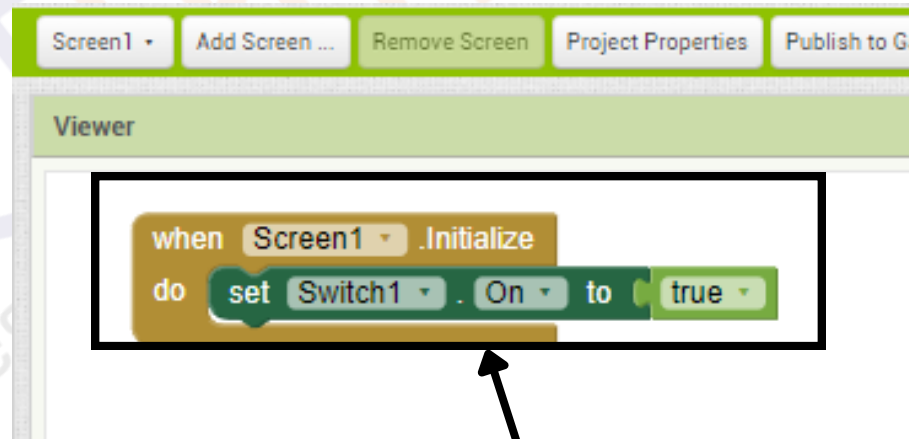
Drag the block to **Viewer Area**

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Block - Screen1



From Blocks, choose **Logic** and select and drag **true** block



And place it as seen



APP INVENTOR

Block - Screen1

From Blocks, choose **Switch1** and select and drag **when Switch1.Changed do** block

Drag the block to **Viewer Area**

From Blocks, choose **Switch1** and select and drag **when Switch1.Changed do** block

Drag the block to **Viewer Area**



APP INVENTOR

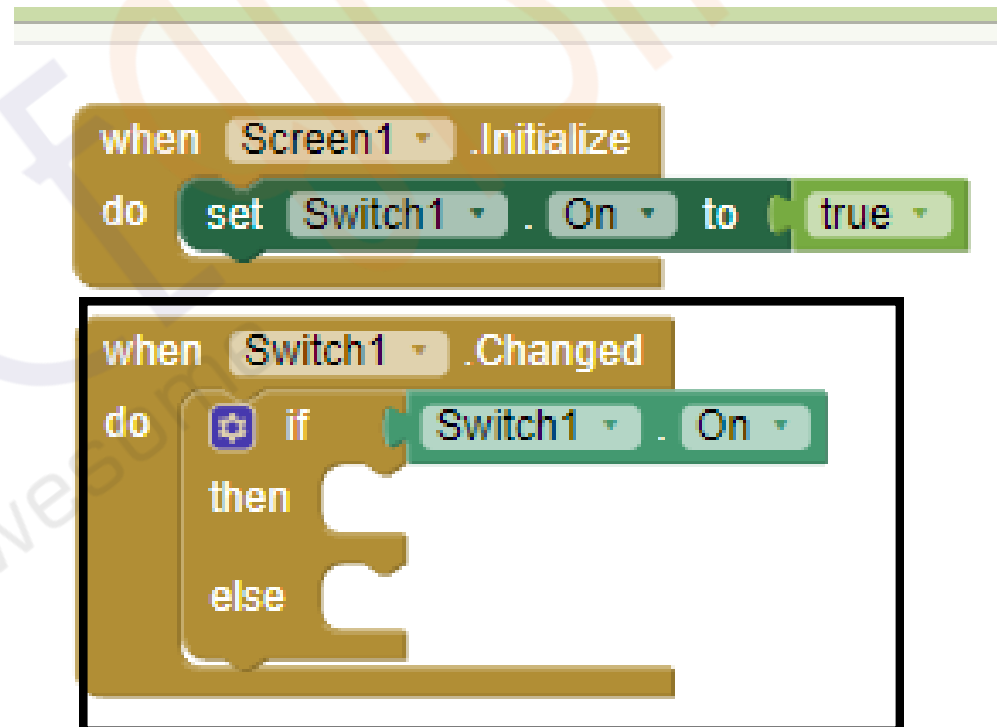
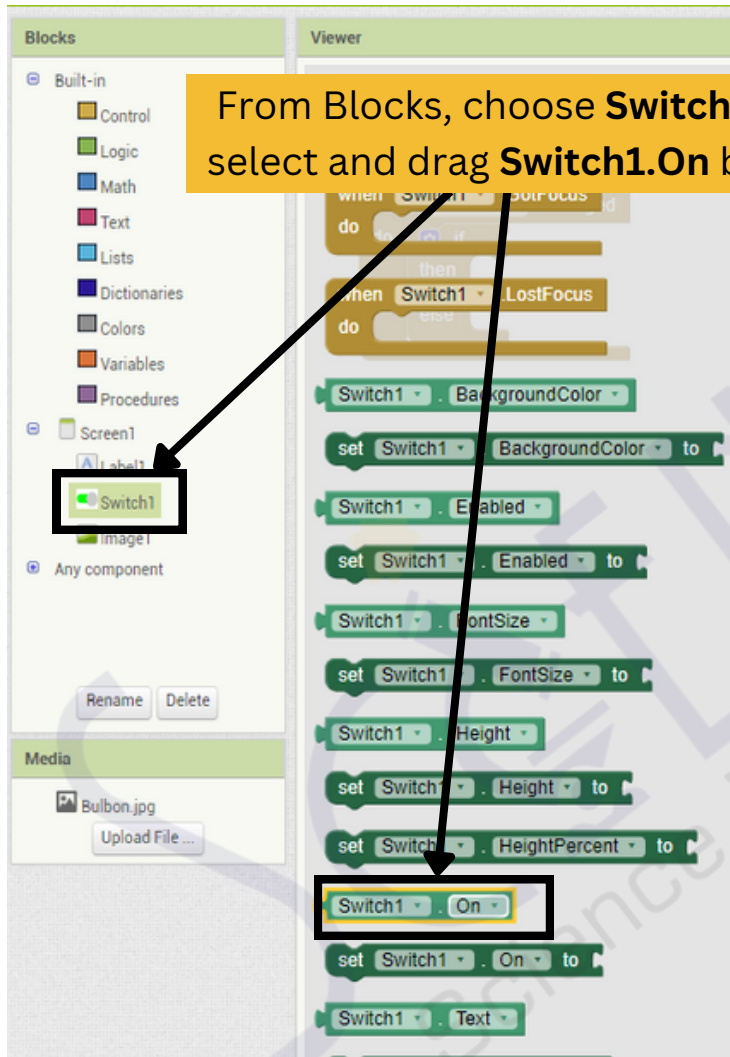
Block - Screen1

From Blocks, choose **Control** and select and drag **if then else** block

Drag the block to **Viewer Area**

APP INVENTOR

Block - Screen1



Place it as seen

APP INVENTOR

Block - Screen1

From Blocks, choose **Image1** and select and drag **set Image1 . Picture to** block

Drag the block to **Viewer Area** as shown

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Block - Screen1

Sunshine_Saver_Game Screen1 Add Screen ... Remove Screen Project Properties Publish to Gallery

Blocks

- Built-in
 - Control
 - Logic
 - Math
 - Text
 - Lists
 - Dictionaries
 - Colors
 - Variables
 - Procedures
- Screen1
 - Label1
 - Switch1
 - Image1
 - Switch2
 - Image2
 - Button2

Viewer

```

when Screen1.Initialize
do set Switch1.On to true

when Switch1.Changed
do if Switch1.On
then set Image1.Picture to Bulbon.jpg
else set Image1.Picture to Bulboff.jpg

when Switch2.Changed
do if Switch2.On
then set Image2.Picture to curtainopen.png
else set Image2.Picture to curtainclosed.png

when Button2.Click
do if not Switch1.On and Switch2.On
then set Label2.Text to "Open curtain to save energy when it's bright out..."
else set Label2.Text to "Try again"
    
```

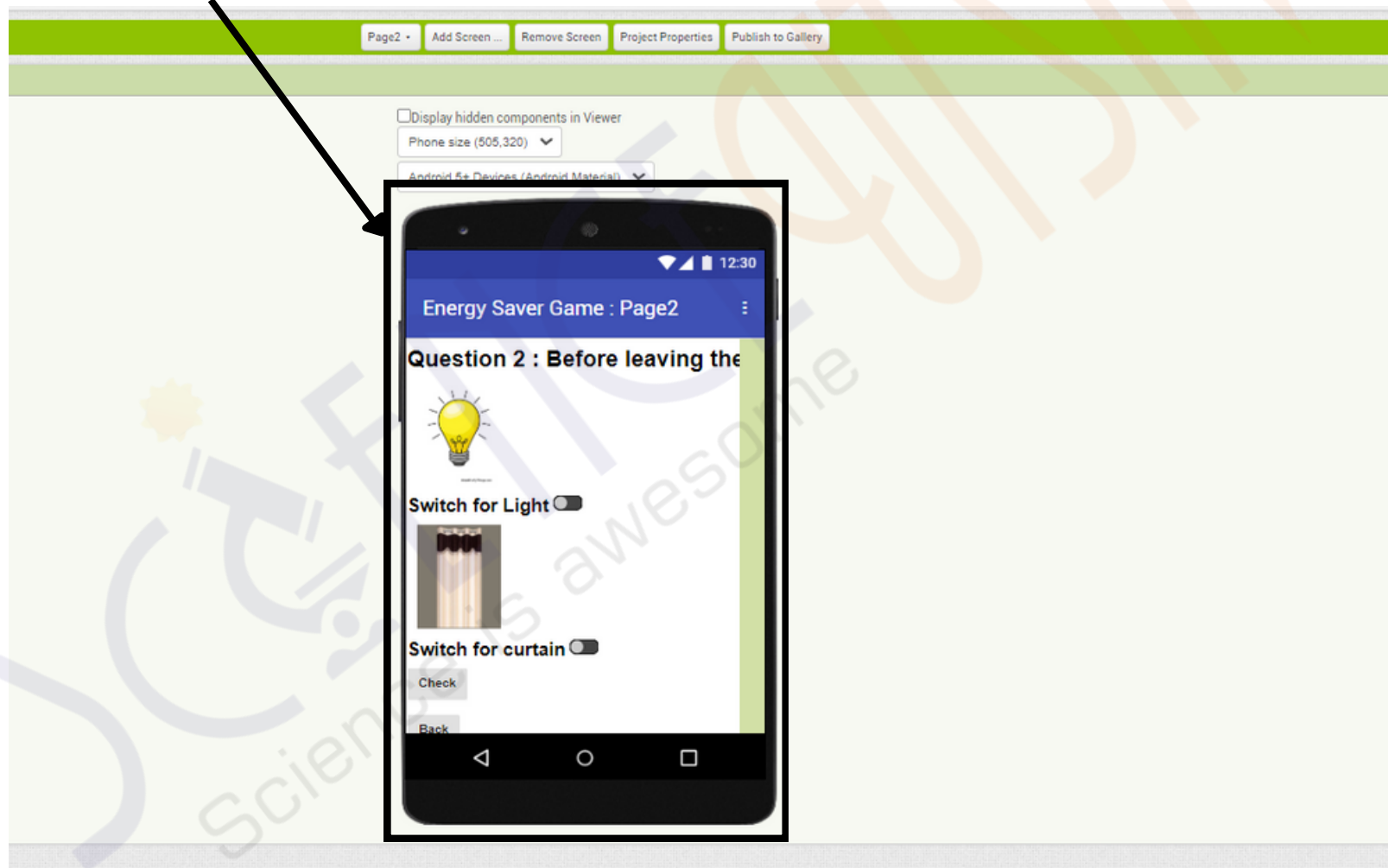
Right-click on the **when Switch1.On** block and choose **Duplicate**

And then choose the option from the drop down

APP INVENTOR

Designer

Add more questions like below:



APP INVENTOR

Block - Page 2

Sunshine_Saver_Game Page2 Add Screen ... Remove Screen Project Properties Publish to Gallery

Blocks

- Built-in
 - Control
 - Logic
 - Math
 - Text
 - Lists
 - Dictionaries
 - Colors
 - Variables
 - Procedures
- Page2
 - Label1
 - Image1
 - Switch1
 - Image2
 - Switch2
 - Button3
 - Label2
 - Rename
 - Delete
- Media
 - Bulboff.jpg
 - Bulbon.jpg
 - curtainclosed.png
 - curtainopen.png

Viewer

```

when Button1 .Click
do
  open another screen screenName Screen1

when Page2 .Initialize
do
  set Switch1 . On to true
  set Switch2 . On to false

when Switch1 .Changed
do
  if Switch1 . On
  then
    set Image1 . Picture to Bulbon.jpg
  else
    set Image1 . Picture to Bulboff.jpg

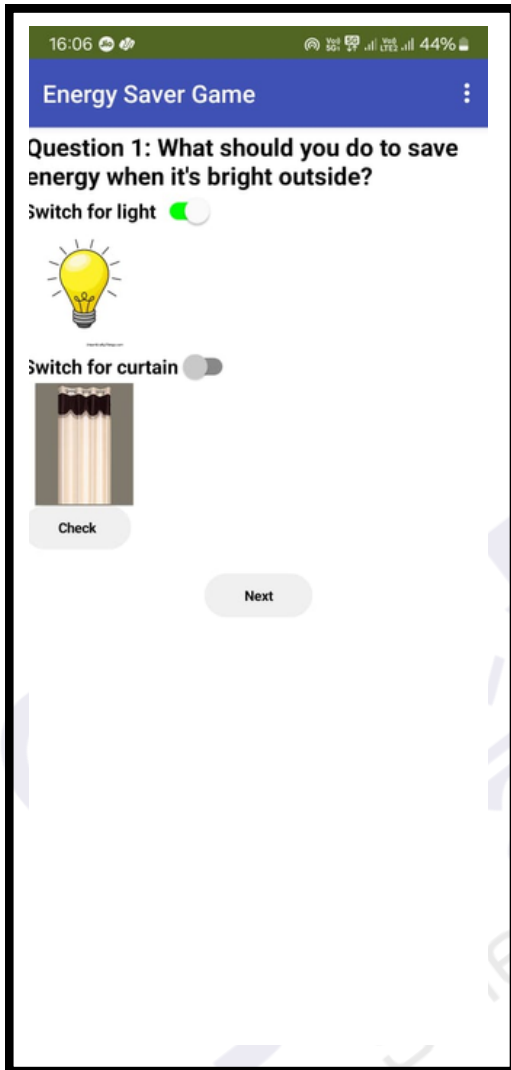
when Switch2 .Changed
do
  if Switch2 . On
  then
    set Image2 . Picture to curtainopen.png
  else
    set Image2 . Picture to curtainclosed.png

when Button3 .Click
do
  if not Switch1 . On and not Switch2 . On
  then
    set Label2 . Text to "Close curtains and switch off bulb"
  else
    set Label2 . Text to "Try again"
    
```

Add blocks like this based on your requirement

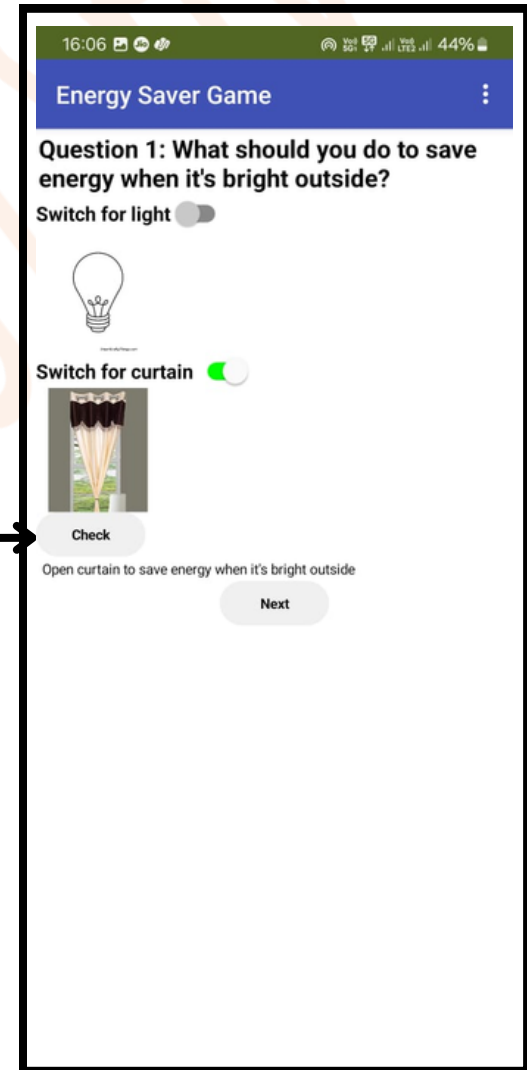
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Phone Screen



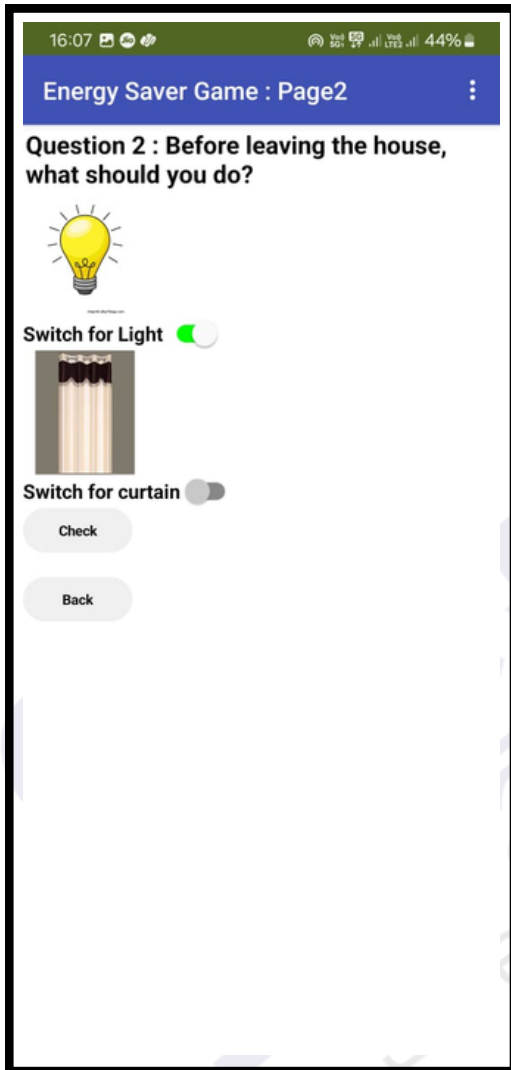
Slide the options according to the question and click on **Check** button

Now, click on **Next** button



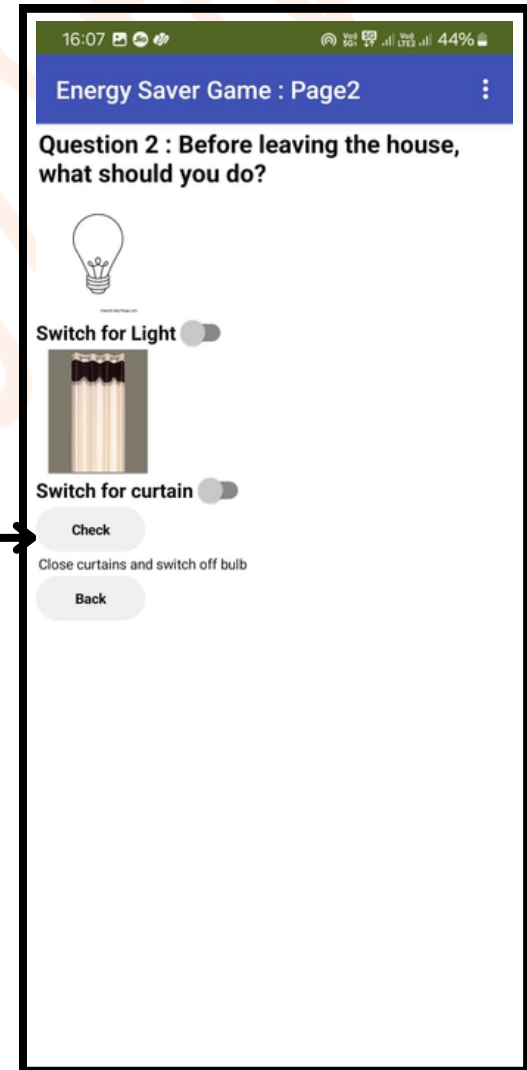
APP INVENTOR

Phone Screen



Slide the options according to the question and click on **Check** button

Now, click on **Next** button



Happy learning!