**FortuneTeller**

An app that can tell your fortune. It picks a random fortune from a list of possible fortunes.

Ages: 9+
Difficulty: Medium
Time to complete: 45 minutes to 1 hour

What you should already know:
- How to create a project
- How to test your app

What you will learn:
- How to add a label and set the label text
- How to rename a component
- How to create a variable (a name associated with a value)
- How to create a list (holds items in order)
- How to add items to a list and pick a random one to display

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**Step 1: Create the User Interface**

**Download the Media**
Go to [http://ice-web.cc.gatech.edu/dl/?q=node/883](http://ice-web.cc.gatech.edu/dl/?q=node/883). Download the "gypsy.jpg" file from this link.

**Create Components – Button and Label**

1. Drag a **Button** from the *User Interface* pallete. Set the image source for the button to "gypsy.jpg". Clear the text for the button.
2. Drag a **Label** from the *User Interface* pallete. Change the text for the FortuneLabel to "Click the button to see your fortune".

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**Palette and Viewer**

**Properties to be set**

<table>
<thead>
<tr>
<th>Image</th>
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<tbody>
<tr>
<td>Text</td>
<td></td>
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Click the button to see your fortune.
Rename Component – Label

Good names make programs easier to understand. Rename the label from "Fortune1" to "FortuneLabel" by clicking on the Rename button in the components area (3rd column from the left) and then type in the new name of "FortuneLabel".

Step 2: Program the App

In this step we will program the app to show a random fortune when the button is clicked. We will use a variable to hold a list of possible fortunes. A variable can hold a value and that value can change or vary, like a score in a game. A list holds items in order, like a shopping list.

Create a Variable

Click on Built-In > Variable in the blocks editor and pull out a initialize global name to then click on the "name" and type "FortuneList". This creates a global variable called "FortuneList". All code can access a global variable. In contrast, only some code can access a local variable.

Create a List

1. Click on Built-in > Lists and drag out a make a list block and drop it next to the to part in the initialize global FortuneList block.
2. Click on **Built-in > Text** and drag out a blank """" block and insert it into the **make a list** block. Click on the empty space for text and replace it with your first fortune like "You will win the lottery".

3. Click on **Built-in > Text** and drag out another empty """" block for each fortune. Change the text for each to another fortune. Space for more fortunes can be added by clicking the small blue square in the upper left corner of the **make a list** and dragging the "item" from the left into the list on the right.

**Handle Event - button click**

Click on **Screen1 > Button1**. Drag out a **when Button1.Click**. This block will be run each time the button is clicked.

**Specify Action - display a random fortune**

1. Click on **Screen1 > FortuneLabel** and drag out a **set FortuneLabel.Text to** and drop it in the **when Button1.Click**. This sets the text of the label. If you can't find **FortuneLabel** check that you renamed the **Label1** in Components area of the Designer.
2. Click on *Built-In > Lists* and drag out a **pick a random item list** and drop it next to the set *FortuneLabel.Text* to.

3. Click on *Built-In > Variables* and drag out a **get** block and put that next to the area marked **list**. Then click the arrow to bring down a menu of previously created variables to choose from. Select **global FortuneList**. This will let us pick a random item from the list of fortunes.

### Step 3: Other things to Try

- Can you figure out how to change the app to speak the fortune to you?
- How about showing a new fortune when you shake the phone?
- Could you create a magic 8 ball app?