

App Inventor. Fortune teller – *Magic 8 ball*

We are going to create a mobile app that will answer to yes/no questions. All the materials and additional resources are available at <http://lingid.ee/appinventor>. Completing this worksheet takes 45 minutes.

- For creating mobile apps you need to go to <http://ai2.appinventor.mit.edu/> and log in with a Google account. For example Gmail account.
- Then choose „*Start new project*“.

Creating mobile apps

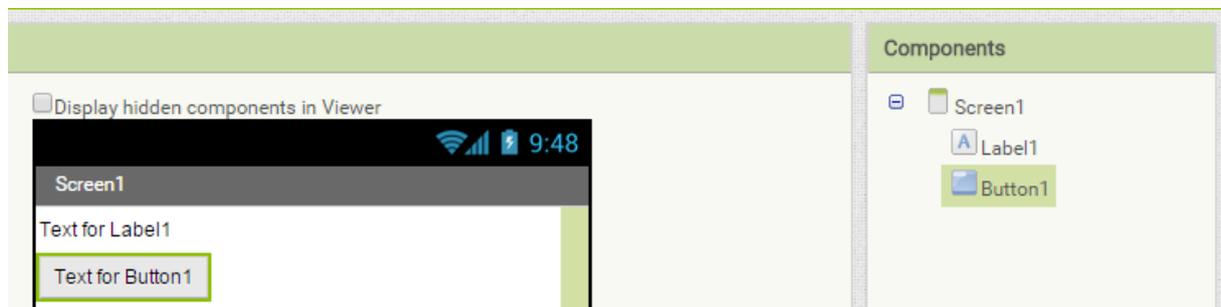
We will create a mobile app that will consist of two parts:

- Button – answers the question when you click it.
- Label – area that shows the answer.

Design

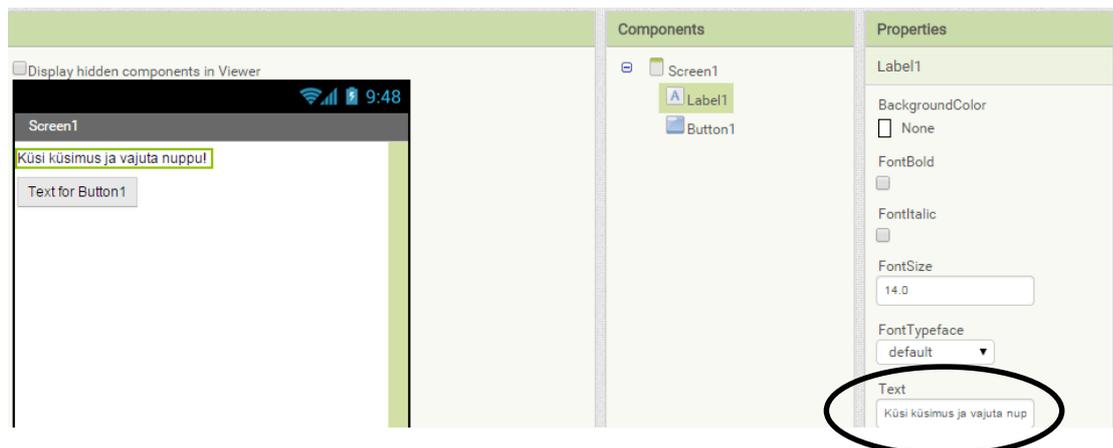
In graphics view add the following components:

- *Label*, area that shows the answer.
- *Button*, answers the question when clicking on it.

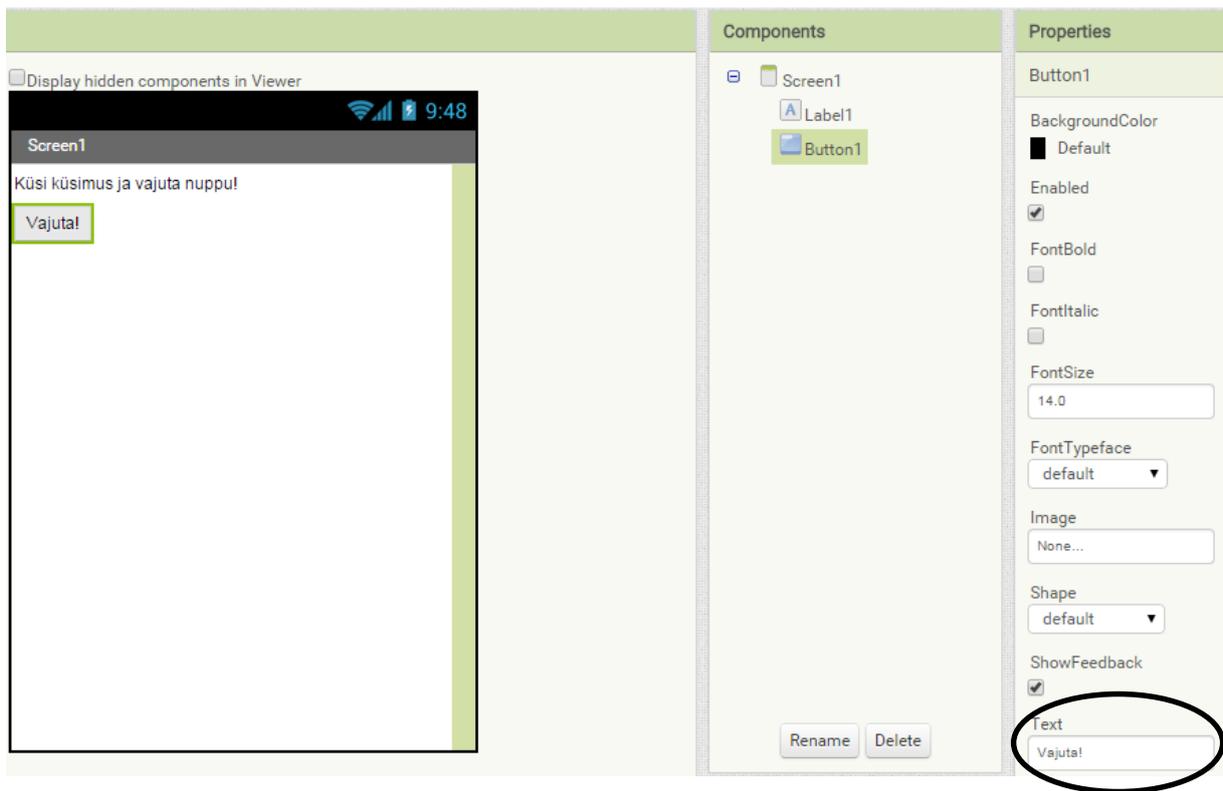


Change the text of the Label to „Ask a question and click the button!“. Change the text of the Button to „Answer!“.

The text on the label can be changed:



And the text on the button can be changed:

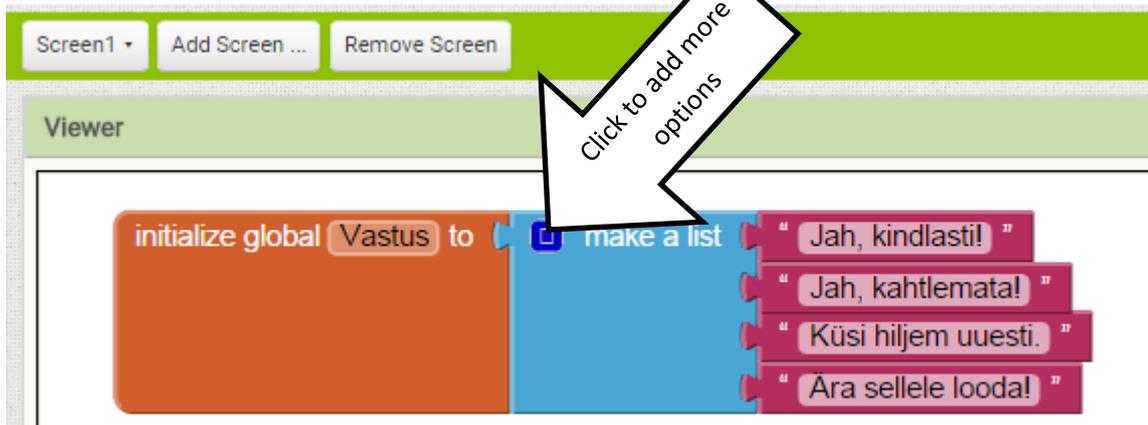


Programming

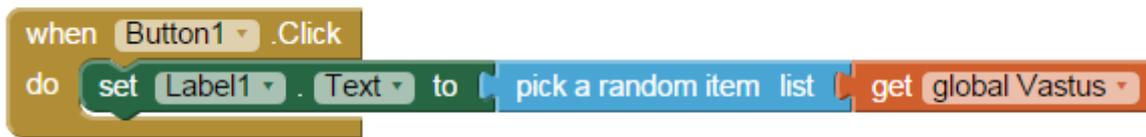
Programming what the button does. Click on the *Blocks* button on the top-right of the screen:



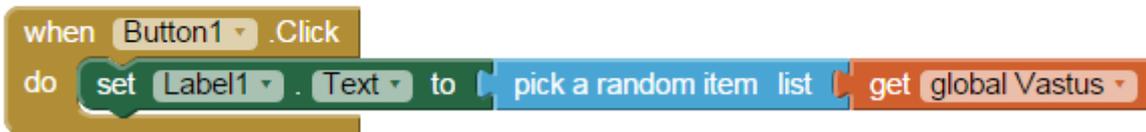
First we will create a list of answers that the app can give:



Next we will choose a random answer from the list to show it on the label when clicking on the button:



The **whole** program should look something like this:



Testing

You need to start **aiStarter** for testing the mobile app on your **computer** (available here: <http://appinventor.mit.edu/explore/ai2/setup-emulator.html>) and click *Connect > Emulator* from the App Inventor menu. Wait patiently for the program to open.

If you want to test your app on a **mobile device** then you need to change the settings of your mobile device to allow running third party applications. Go to *Settings > Security* and check the "Allow installation of apps from unknown sources" option.

Installing your app on a device can be done in two ways:

1. Using QR-code:

- On the MIT App Inventor page click *Build > App (provide QR code for .apk)*.
- Scan the code with a QR-scanning program on your device and install the app.

2. USB cable (better choice)

- Connect your device and computer with a proper USB cable (usually Mini USB cable).
- On the MIT App Inventor page click *Build > App (Save apk)* and wait till you are prompted where to save the apk file.
- Save the file on your device (for example choose the DCIM folder).
- Disconnect the cable, find the file on your device and open it.

Think of a yes/no question for testing and hit the button!

For example: Will it rain tomorrow?

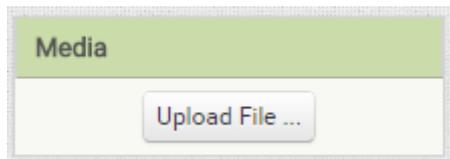
Advanced

1. Add more answers to your app so the total amount would be 20.

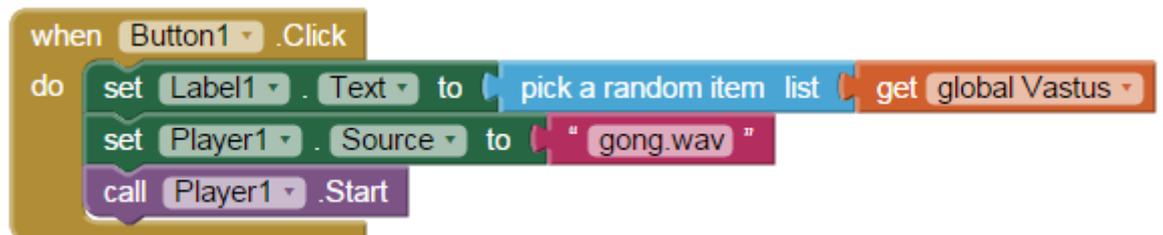
For example:

Positive answers	Neutral answers	Negative answers
It is certain	Reply hazy try again.	Don't count on it.
It is decidedly so	Ask again later.	My reply is no.
Without a doubt!	Better not tell you now.	My sources say no.
Yes definitely!	Cannot predict now.	Outlook not so good.
You may rely on it.	Concentrate and ask again.	Very doubtful.
As I see it, yes.		
Most likely.		
Outlook good.		
Yes.		
Signs point to yes.		

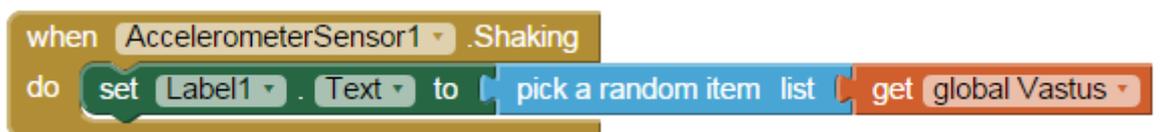
2. Change the program to play a sound when you click the button.
 - a. Add a sound file *gong.wav* (available at <http://lingid.ee/appinventor>) to your program in the *Designer* view.



- b. Add a *Player* in the *Designer* view and in the *Blocks* view program:



3. Change your program so that you get answers by shaking your device:
 - a. Add component *AccelerometerSensor* in the *Designer* view.
 - b. Instead of the button click, change your code to:



4. How to improve the design of your app? Experiment on your own. Try to add a background image to your app, you can find images from the internet. You can also center the content on your page by choosing *Center* on the screen settings page and *Background* colour *None*.