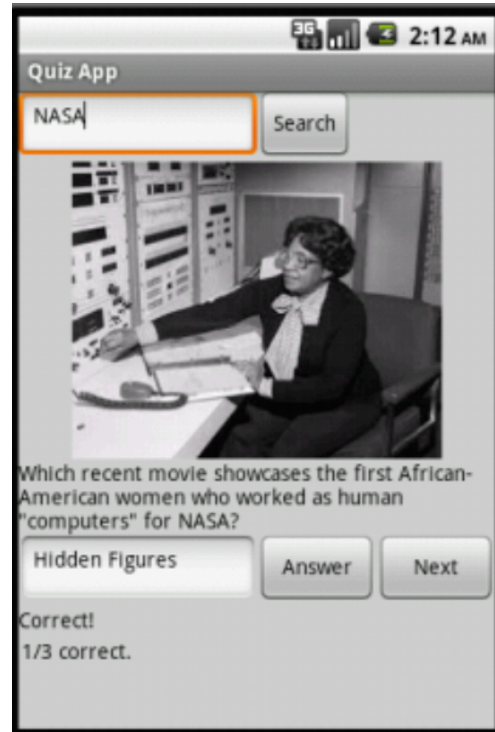




In this lesson you will complete several small programming projects that add enhancements to the Quiz app. You are encouraged to discuss your ideas for how to solve these problems with the instructor and with your partner and other students.

**Objectives:** In this lesson you will:

- learn to count actions (right/wrong answers) using a list to keep track of which questions have already been answered,
- learn to use loops with lists,
- solidify your understanding of the quiz app through personalizing and customizing it.



[Click here to watch video.](#)



## Loops with Lists

Watch the Loops with Lists [video](#) (also on the lesson page) and review the [presentation](#) to learn about loops with lists.

AP Text Pseudocode	AP Block Pseudocode	App Inventor Block
<pre>FOR EACH item IN list {   DISPLAY( item ) }</pre>	<pre>FOR EACH item IN list   DISPLAY item</pre>	
<pre>i ← 1 REPEAT n TIMES {   DISPLAY( list[i] )   i ← i + 1 }</pre>	<pre>i ← 1 REPEAT n TIMES   DISPLAY list[i]   i ← i + 1</pre>	
<pre>questionsList[index]</pre>	<pre>questionsList index</pre>	

## Getting Ready

Open App Inventor and open your Quiz app from the last lesson.

## Quiz App Mini Projects

### Mini Projects

Here are some creative projects. Complete all of them. **Use the Save As button to rename your project “QuizProject#” [where # will be replaced by the mini project number you will complete from the list of mini projects below.]**

You are encouraged to discuss your ideas for how to solve these problems with the instructor and with your partner and other students.

1. **If/Else Scoring Algorithm:** Modify your app to keep score of how many



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questions are answered correctly and incorrectly. Be sure and restrict it so that the quiz taker can only receive credit for answering each question once (i.e., if there are three questions, the quiz taker can only be credited with three correct answers). Use this [short handout](#) to guide you with this project.

2. **Loop Algorithm for Search:** Add a keyword search capability to your app. For example, if the user types in NASA and clicks on the search button, you should find the question or answer with the word NASA in it and show that question. This will be a linear search through the parallel question and answer lists using a loop. Use this [short handout](#) to guide you with this project.
3. Use the Quiz App as a template to create a quiz on a topic of your own choosing. Besides changing the questions, answers, and pictures, add at least one enhancement to the app.

**Nice work! Complete the Self-Check Exercises and Portfolio Reflection Questions as directed by your instructor.**