Overview

The purpose of this tutorial is to demonstrate how to use a template for quizzes in which the user is prompted to answer questions that require a specific type of input. Many of the methods have been provided for you. To enable you to use these methods in any world, they have all been saved to an Alice object that can be imported. There are five basic steps to creating your quiz world. But first, understand the format of the quiz.

Using the ask user functions

Quiz Template:
The format of this quiz:

1) An object, which I refer to as the Instructor, will ask each question.
2) Once the question is asked, a dialog box pops up, in which the user puts the answer.
3) The correct answer is either a number, text (known as a String) or either yes or no.
4) The user's answer is then compared to the correct answer. If it is possible to keep track of the score and allow the user to try again, the score is evaluated.
5) Once the question has been evaluated, the Instructor will repeat theses steps for the next question.

When you build your own quiz world, setting up the objects and camera views is the first step.

Set up questions.

When you downloaded this tutorial, you should have downloaded the starting world, it is called questionVariableStart.a2w. If not, do so now.

Save it in a directory that you can find again.

For the sake of this tutorial, a starter world has been provided.

When you downloaded this tutorial, you should build your own quiz world, setting up the objects and camera views is the first step.
Step One

1. Open Alice, and open the world questionVariableStart.a2w.
2. First, click on world in the object tree. Click on the methods tab in the details area. Click create new method. Name it quiz1Method. Drag quiz1Method, set point of view, set duration to 0. Select Dummy Objects, quiz1View. Set duration to 0.
3. It is good practice to set the camera position if you will have multiple views in your world.

Set the Camera View

1. Click on world.firstMethod. Drag quiz1Method into it.
2. It is good practice to set the camera position if you will have multiple views in your world.

Click create new method. Name it quiz1Method.

First, click on world in the object tree. Click on questionVariableStart.a2w.

Open Alice, and open the world
Import the quiz object

Click on the File Menu
Select Import

Find askQuestionVariables.a2c
You should have downloaded it with this tutorial, if you didn’t do so

Click on the import button to add the object to your world.

Where is your object?
The imported object appears in the object tree.
Remember that it is actually an invisible shape, so you won’t see it on your world screen unless you click on it in the object tree.

But we are able to use all of the properties and methods that I’ve written under it.

Select Import
• Import the quiz object
The quizTemplate

Click on askQuestionVariables in the object tree

In the methods tab, click edit beside quizMethodTemplate

All of the steps for creating your own quiz method are provided here. We’ve already completed Step 1.

Steps

1. Now, I will walk you through the rest of the steps.
   • Setting the Instructor
   • View Copy in your world.
   • Click on the properties tab and drag Instructor into your method.
   • Select set value, select cow, the entire cow.
   • Click on the quizMethod tab and drag Instructor into your method.
   • Select set value, select cow, the entire cow.
   • Select set value, select cow, the entire cow.

The quizTemplate
The Purpose of the Instructor

Variable

The Instructor explains the correct or incorrect answers. By default, it is set to the camera.

If at any point during your quiz, you want to change which object is the Instructor, simply drag this property variable into your quiz method again. This step is only necessary if you have multiple quiz methods in your world (which all use the same score variable).

Step 3: Initialize the score variable

Drag the Score variable into your quiz method.

Set the value to 0.
Step 4: Ask questions

Now, I am going to show you how to ask the different types of questions.

They differ based on what type of answer they have. Remember, the three types of answers include:

- number
- string
- yes/no

They are based on the world level functions.

The methods provided under the imported askUser object use these functions. For each question, all you have to do is call one of the methods.

In the drop down menu, select default string.

In the second drop down menu, select 0.

Click on the methods tab. Drag askNumber into your method.

In the drop down menu, select default string.

In the second drop down menu, select 0.

In the drop down menu, select askUser.

Now, I am going to show you how to ask the different types of questions.
Filling in the parameters:

1. There are two parameters for each of these ask methods. The first parameter is for the question, and the second parameter is for the correct answer.

2. Click on `default string` and type in: How many animals are there in this Alice world?

3. Now click on the `0` beside `correctAnswer` and change it to `3`.

4. Play your world. Restart and see what happens when you get the answer right or wrong.

5. Question two: Type String

   - Click on `default string` and type: What is the name of a male chicken?

   - Now drag `askString` into `quiz1Method`. Select `default string` and `None` for the parameters.

   - Click on `default string` and type: What is the name of a male chicken?

   - When the answer is type string, there may be a number of variations that are acceptable for the correct answer based on capitalization and abbreviations, etc. So we use a list of strings to hold the correct answer possibilities.

   - Now click on the `0` beside `correctAnswer` and change it to `3`.

   - Click on `default string` and type: How many animals are there in this Alice world?

   - Click on `default string` and type: How many animals:

   - The first parameter is for the correct answer.

   - The second parameter is for the question, and the second parameter for each of these ask methods.

   - There are two parameters for each of these ask methods.
Create list of Answer Possibilities

Create list of Answer Possibilities

Play your world. Restart to try all of the acceptable variations.

The complete instruction:

1. Create new list
2. Select type Other, String
3. Name the list "maleChicken"
4. Add the following items: rooster, Rooster, cock, Cock
5. Check the box to make a list
6. Click on the None beside correctAnswerChoices. Select correctAnswerChoices = world.maleChicken

Where is your list?

The list you just created appears at the world level. (That’s why the parameter says world.maleChicken)

So if you need to modify your list, click on world in the object tree. Click on properties, and you can open your list from there.

Play your world. Restart to try all of the acceptable variations.
Question Three: type Yes/No

For question three, click on the methods tab of your imported object and drag askYesNo into quiz1 Method.

For the parameters, select default string, and select true.

Click on default string and type: Is the frog smaller than the chicken?

The correctAnswer is already set to true.

Click on default string and type: Is the frog smaller than the chicken?

Step 5: Score

At the end of the quiz, if you want to tell the user how many questions they answered correctly, you can have the Instructor say the score.

Click on quiz1Template. Drag the Instruction to the clipboard. Then click on quiz1method and drag it from the clipboard to the end of your Method.
How to construct the Score Say instruction

If copying from the clipboard does not work for you, follow these instructions instead.

Click on properties tab, drag Instructor into your quizMethod. Select say, hello.

Click on World in the object tree, go to functions. Drag a joined with b on top of hello, select default string. From the drop down, select default string. From the drop down, select expressions, select the score variable. Drag the function what as a string on top of default string. From the drop down, select expressions, select the score variable.

Click on hello and type "You correctly answered: " . Then, set duration to 2 seconds.

Play your world.

Construct score say (cont.)

Select default string. Functions. Drag a joined with b on top of hello, select default string. From the drop down, select expressions, select the score variable. Drag the function what as a string on top of default string. From the drop down, select expressions, select the score variable.

Click on World in the object tree, go to quizMethod. Select say, hello.

Click on properties tab, drag Instructor into your instruction.

If copying from the clipboard does not work for you, follow these instructions instead.

How to construct the Score Say instruction
Ask question with tries

For the three ask methods you've used, the user is told the answer if they get it wrong.

If you want the user to be able to keep trying to answer, use these methods instead:

- askNumberWithTries
- askStringWithTries
- askYesNoWithTries

Drag askNumberWithTries into your quiz method and set Question to "What is 104-102?" and the correctAnswer to 2.

Here is the full quiz method:

Remember that you can have multiple quizzes in your world, simply by following these steps to create another quiz method.

Full method

and the correctAnswer to 2.

Do not be necessary to share the score.

It may not be necessary to share the score, especially if you use the WithTries methods.

Remember that you can have multiple quizzes in your world, simply by following these steps to create another quiz method.
Recap

The steps to creating another quizMethod:

1. Set up your objects and camera views
2. & 3. Create quiz1Method and set the initial values for Instructor and Score
4. Ask your questions. To know which method to use, decide which answer type and if you want the user to be able to try again or not.
5. Tell the user their score, if you want to.

And remember that you can have multiple quizzes in your world, simply by following these steps to create another quizMethod. My final method is on the next slide and reminds you that you can have multiple quizzes in your world in Alice is the fun of creating a quiz world in Alice.

To Do: Add More Animation

Note that you can put numbers in Strings too. For example, suppose the answer could be: seven, 7, Seven, or 7.0. Then you would use askString, even though the answer is technically a number, in order to use the answer possibilities. In order to use the answer possibilities, use decide which answer type and if you want the user to be able to try again or not.

4. Ask your questions. To know which method to use, decide which answer type and if you want the user to be able to try again or not.
5. Tell the user their score, if you want to.

2. & 3. Create quiz1Method and set the initial values for Instructor and Score
1. Set up your objects and camera views

The steps to creating your quiz method:
Objects are animated during the quiz.