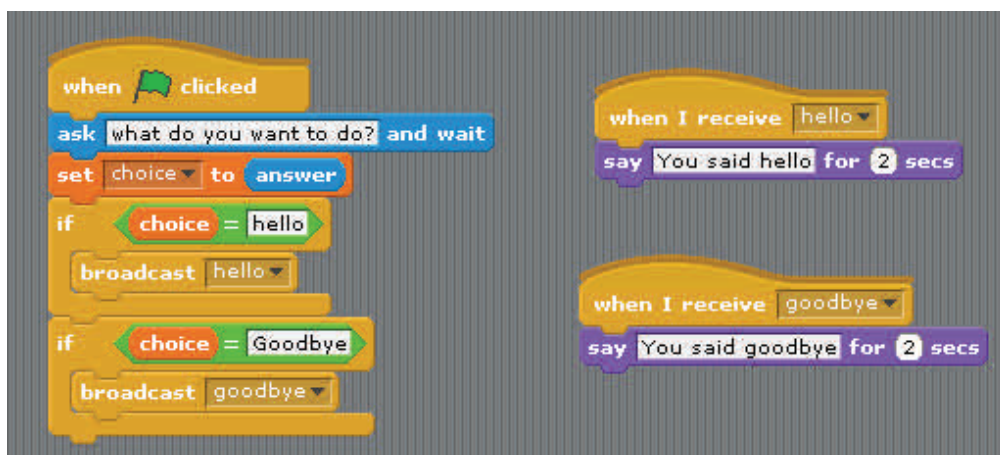




Computer Programming - Branching Commands in SCRATCH



Programmers often have a need to go to different parts of the program if certain conditions are met. The example above shows how this can be done in SCRATCH.

The main program on the above, left shows that a question is being asked and that the *answer* variable is being stored in the *choice* variable. This is followed by two *If commands*. If the user enters the word *hello* (*choice = hello*) then the main program broadcasts the word *hello*. This is picked up by both of the small programs on the right. It is ignored by the small program on the bottom right but, it is accepted by the program on the top right. This then displays on the screen, the text *You said hello*.

Returning to the main program on the above left, if the choice received was *goodbye*, this would be broadcast and the small coding on the bottom right would accept this and display the words *You said goodbye*.

Exercises

1. Write your own program which contains two branches. The program will ask if the user wishes to add or subtract. It will also ask for two numbers to be inputted. Depending upon the responses received, the branch codings will then perform either an addition or a subtraction and will display the answer. Test the program thoroughly and, when it is working fully, save it as Branching1.
2. Modify the above program (Exercise1) so that four options are given—add, subtract, multiply and divide. Add more branches as necessary. When the program has been fully tested, save it as Branching2.
3. Modify the program above (Exercise2) so that if none of the four options are input, the program displays a message and then stops. When you have run and tested the program fully, save it as Branching3.