Module 6
Changing Things

SCRATCH

lero THE IRISH SOFTWARE ENGINEERING RESEARCH CENTRE

ICS IRISH COMPUTER SOCIETY

I Like Mine Better

Introduction

Computer programmers often change or modify code that already exists, to make a program do something new or something differently.

Think about your favourite computer games like World of Warcraft, The Sims, Super Mario games. Each year new versions or varieties of these games are released by modifying the features of the original. You will modify the scripts in some Scratch projects to change the behaviour of their sprites.

You will first need to figure out what script or feature needs to be modified.
Once modifications have been made it is important to test that the new features work correctly and that new bugs have not been introduced in the functionality.

> *All of the projects required for this module are available for download in the resources section of* ***Module 6*** *at http://www.scratch.ie/students*

Exercises

❶ **Break Dance Project**

1. Change the background.

2. Import another sprite into the project and make it dance in different ways when the green flag is clicked.

❷ **Aquarium Project**

1. Animate the seaweed i.e. plant1, plant2 and plant3.

2. If Creature1 touches Creature6, make Creature1 say "hello". Make Creature6 say "hi there" in response to Creature1.

3. Add a suitable soundtrack.
   You will find lots of music and sounds at http://www.pacdv.com/sounds/ or you can add your own sound effects from the Scratch library of sounds.

4. Change the colour of Creature5 if it is touching plant1.

5. Increase the size of Creature3 if touching Creature2.

③ Tamara Project

1. Change the name Tamara to the name JACK.

2. Change the behaviour of the letters. When the mouse touches the letter K draw a triangle. Change the pen size to 4 first and use the 'wait' command to slow down the drawing.

3. Change the letter C to a cat when clicked (i.e. when the mouse is over it and the mouse is down at the same time).

4. When the mouse is touching the letters J, A and K, play a different sound. Play 'meow' when the letter C is clicked. (You will need to import sounds from the Scratch sounds library).

④ Dance Dress Up Project

1. Introduce a new sprite called Ella.

2. Give her 3 different costumes like the other sprites.

3. When the green flag is clicked, Ella should be the smallest sprite and make sure to position her at the end of the line of other sprites on stage.

4. When Ella is clicked, she should change costume.

5. When the e key is pressed, make Ella dance on the brown platform, in whatever way you like, before returning to her original position. (Tip: you may duplicate some code from the other sprites by right-clicking on the block of code and dragging it to the Ella sprite).

6. When the letter keys for the other sprites are pressed (i.e. a, b, c, d), make Ella dance in line like the other sprites. (Tip: you may duplicate some code from another of the sprites by right-clicking on the block of code and dragging it to the Ella sprite).

⑤ Robot Dance Project

1. Delete a robot from the floor.

2. Change the stage.

3. Add a new robot, called Robot 4, and make it jump up and say "Yippee" when the space bar is pressed.

4. Add a new soundtrack. You can add your own sound effects or music from the Scratch library of sounds.

5. Add a new variable 'speed' and change the speed at which one of the robots dances. (Hint: Make the variable counter into a slider, by double-clicking on it).

⑥   Fish Chomp Project

1. Add a variable called score for the hungry fish sprite.
2. Change the score if the hungry fish sprite eats any of the 3 goldfish sprites.
3. If the score is equal to 10, change the background, hide all the sprites and display the message 'You Win'.

⑦   Download your favourite project from the Scratch website and modify the scripts to create your own version of the project.