Introduction to Programming

Credit Task 1.1: Button Test

Overview

Control flow is essential if you want your programs to have any kind of dynamic behaviour. In this task you will use the hand execution process to demonstrate how the control flow constructs operate within the computer.

Purpose:	Learn how the control flow instructions work within the computer.
Task:	Read and understand the supplied code, and correct issues with its style and functionality.
Time:	This task should be completed before the start of week 5.
Resources:	■ Chapter 5 of the Programming Arcana
	■ Swinburne CodeCasts ([YouTube Channel](#), [iTunesU](#))
	• [Control Flow](#)
	• [Branching with if statements](#)
	• [Repeating code with loops](#)
	• [Branching with the case statement](#)
	■ Syntax Videos
	• [Repeat](#), [Compound Statement](#), [If Statement](#), [While](#), [Case](#)

> **Note**: Remember to submit **all tasks** to Doubtfire for assessment. Also make sure you *fix and resubmit* any tasks you did not get signed off last week!

Submission Details

You must submit the following files to Doubtfire:

■ Corrected code for ButtonClicked

Make sure that your task has the following in your submission:

■ Your correction fixes the issues identified by the supplied test data.

Instructions

Another developer has been employed to create the code to test if a button is clicked. Unfortunately the code they have created does not work as intended, and you have been tasked with fixing their program.

1. Download the resources associated with the task.

2. Read through the code and **restructure** it so that it follows good programming practice and the coding conventions used in this unit.

> **Note**: In software development restructuring code to improve its quality is know as *refactoring*.

3. Currently the code does not work correctly. The following tests indicate what the answers should be (given the mouse's location, and assuming that the mouse was clicked). Use these test to locate the current issue with the code.

	btnX	btnY	btnWidth	btnHeight		MouseX	MouseY	Answer
Test 1	50	50	100	30		75	75	TRUE
Test 2	50	50	100	30		75	10	FALSE
Test 3	50	50	100	30		75	200	FALSE
Test 4	50	50	100	30		10	75	FALSE
Test 5	50	50	100	30		200	75	FALSE

4. Fix the program's code when you have located the issue and make sure that it works correctly before submitting.

> **Note**: Remember the core aspects of structured programming **sequence**, **selection**, and **repetition**. Instructions are run in sequence, the if and case statements for selection, while the repeat and while loops allow for repetition.