1811ICT/2807ICT/7001ICT Programming Principles Workshop 4

School of Information and Communication Technology

Griffith University

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| Goals | In this workshop we create interactive scripts that make decisions and/or use while loops. |
| When | Week 5 |

# Before your workshop class:

* Read the whole document.
* Review the lecture notes sections 1 to 12.

# Workshop activities

At any stage, when you are stuck, *ask your instructor*!

## Problem 1

*Problem:* Write a program that reads whole numbers entered by the user until a zero is entered, and then prints the number of positive numbers that were entered.

Example run:

Enter a number: 3

Enter a number: -2

Enter a number: 5

Enter a number: 6

Enter a number: -100

Enter a number: 70

Enter a number: 22

Enter a number: 68

Enter a number: 0   
6 positive numbers were entered.

*Testing*: Test your code for the example input shown above.

## Problem 2

*Problem:* The grades at a university are awarded based on the marks awarded for the course out of 100. Marks of 85 or above receive the grade of 7. Marks less than 85 but that are 75 or above receive the grade of 6. Marks less than 75 but that are 65 or above receive the grade of 5. Marks less than 65 but that are 50 or above receive the grade of 4. Anything less than 50 gets the grade of F. Write a program that asks the user to enter their marks, calculates the grade and prints the grade awarded. When the user finished entering their marks, the average mark and average grade are printed to the console.

Example run:

|  |
| --- |
| Enter a mark: 64  Grade is 4  Enter a mark: 58  Grade is 4  Enter a mark: 75  Grade is 6  Enter a mark: -6  Average mark = 65.67  Average grade = 4.67 |

*Testing*: Test your code for the example input shown above.

## Problem 3

*Problem:* A palindrome is a number or a text phrase that reads the same backwards as well as forwards. Examples of palindromes are 123321, 1234321, 55555, 22, 454, 1, 0. Write a program that reads in a positive integer number and prints out whether that number is a palindrome.

Example run:

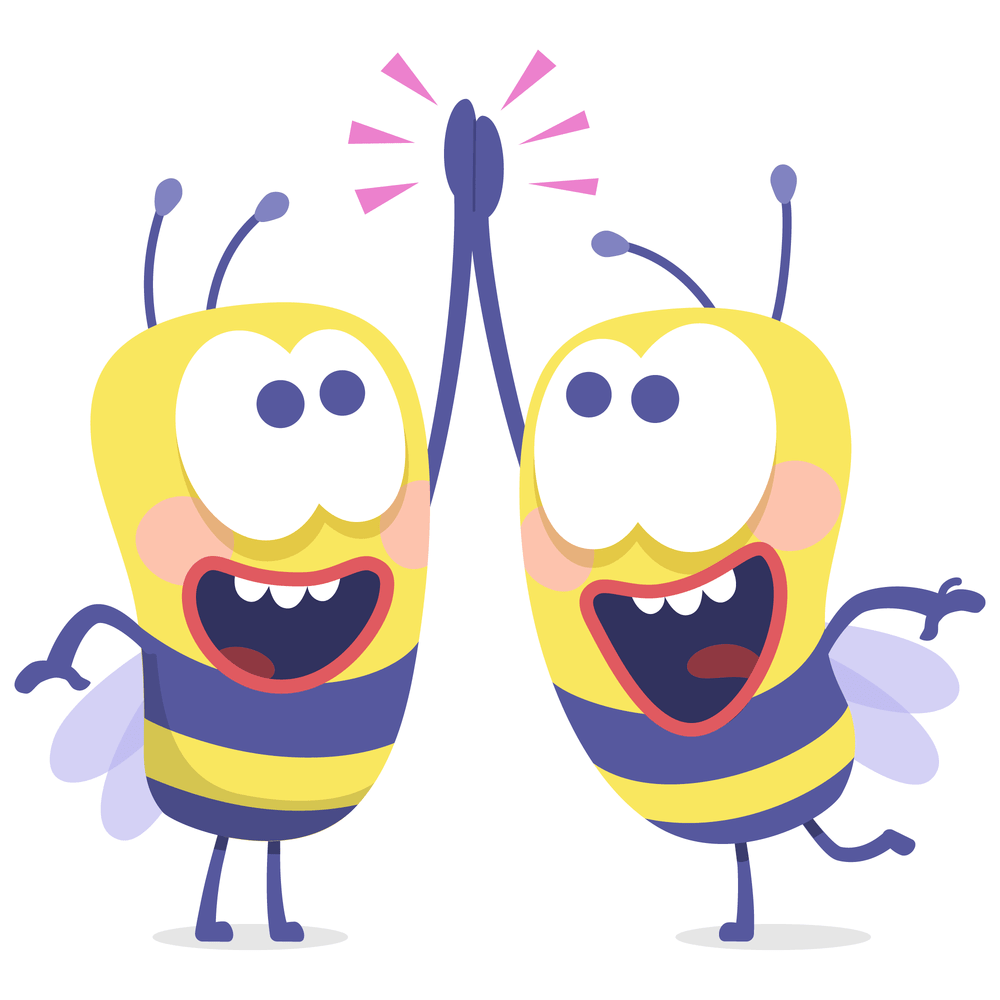
Enter a positive number: 12321

12321 is a palindrome

Enter a positive number: 1234

1234 is not a palindrome

*Testing*: Test your code for the example input shown above.



**Well done for finishing these activities!**