

# Fundamentals of Computer Programming



## Building a Programming Portfolio

### Week 1

*You should be able to complete the following programs by the end of the week. You should keep the code somewhere safe, in an organised way. GitHub is ideal. Wherever you choose, you should ensure that the work is safe and backed up.*

*Possible solutions will be uploaded to the main module GitHub repository every week. If you follow that repo you should be able to receive notifications.*

1. Write a program that prints a cheery message (such as "Hello World") on the screen. Run it, and note that you have taken the first step to becoming a programmer!
2. Make a copy of the previous program, and modify it so that it displays your name. So if your name is Herbert the message should become:  
Hello, Herbert!  
*Note: Very few programs are written from scratch. It is usually best to start with a program that you know works, and ideally does something similar to the new program.*
3. Over the summer, temperatures in Yorkshire reached 38.4C. Write a program that converts this value in Celsius to the equivalent temperature in Fahrenheit, and then displays both.
4. In a long career for Yorkshire, Geoffrey Boycott played 609 matches, batted 1014 times, was not out 162 times, and scored 48426 runs. Write a program to calculate and display Boycott's batting average.  
*Note: A batting average is the number of runs scored divided by the number of completed innings (i.e. the total times batted minus the times not out).*
5. The Head of Computing at the University of Poppleton is tasked with dividing a group of students into lab groups. A lab group is 24 students, since this is the number of PCs in a lab. Write a program that calculates how many groups are needed for the following number of students: 113, 175, 12. Display how many full groups there will be, and how many students will be in the smaller "left over" group.