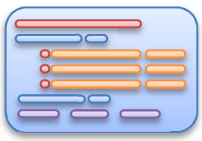

Computer code can get complicated. In fact, it can get *really* complicated. This can be a challenge for the programmer when they are writing the code, but it can be much more of a challenge when they return to make some changes a couple of years later. Working on someone else's code can be even more difficult. To tackle this problem, most programming languages offer some mechanism of writing comments in the code. These annotations help everyone understand how the program is working. When it comes to running the program, the comments are ignored by the computer.

Aim: *To add helpful information about how the code works.*

Python uses a single hash to start a comment. This can be placed at the start of a line, like this:

```
#This comment will help explain what is happening below
```

Or further along the line, like this:

```
first_number = 2          #Assign the first_number variable
```

Task 1 – Making Comments in Python

Work out what the program below does. Create the program in *repl.it*, adding comments explaining what each line of code does. We have got you started in line 2 and put hashes in places further down the script where you should add comments.

```
2  #Display this text in the console, requesting an input
3  your_age_str = input("Enter your age")
4
5  your_age_int = int(your_age_str)      #
6
7  if your_age_int < 13:                 #
8
9    print("Wow... a computer genius")   #
10
11 elif your_age_int < 20:               #
12
13   print("Hello teenager")             #
14
15 print("End")                          #
```

Line 7 reads…
'if the *your_age_int* variable has a value less than 13, then'.

Line 11 reads…
'else if the *your_age_int* variable has a value less than 20, then'.

Note: *'elif' is Python's way of saying 'else if'.*

Add a comment saying what the problem with the program is and save as '**09.1 Commenting**'.

Expert Tip

Sometimes, you might want to *comment out* a line of code whilst testing your program, so that it doesn't run at all. This can be achieved using the method above. However, at times you may want to prevent a whole block of code from running whilst you sort out other problems. Although you could comment out each line individually, you can usually stop a block of code running with sets of three quote marks (single or double). This method should only be used for testing though, as you are really creating a long unused string in your program. It isn't actually ignored; it just doesn't do anything.

```
''' ignore the following code

elif your_age_int < 20:
  print("Hello teenager")

stop ignoring '''
```