

A few challenges to have fun with in Python:

Mr Smith's exam results

Mr Smith needs your help.

He needs a program to enter each of his students' names, and their mark (integer, between 0 and 100) in a recent exam. You may use something like "xxx" as student name to check when the last student has been entered.

For each student, as their name and mark are entered, the program should respond by saying what grade they have achieved, according to the following protocol:

- 81-100 : Grade A
- 61-80 : Grade B
- 41-60 : Grade C
- 31-40 : Grade D
- 21-30 : Grade E
- 20 marks or less : Unclassified

Note:

When you test this, please ensure you enter at least one student within each grade boundary (Mr Smith has some bright and some not-so-bright students!)

Mr Smith's Mark book

Mr Smith was **so** pleased with your work on that first task, he now wants you to adapt your code, to list all the students, listing their names in alphabetical order, with their mark alongside.

Mr Smith's Awards

Mrs Bloggs (Headteacher at Mr Smith's school) has asked him for the same class list, but this time in mark order, with the highest achieving student first, again showing name and grade for each student.

Now Mr Smith still hasn't got a clue with Python, so he needs your help again.

... and the school inspectors ...

Mrs Bloggs is now worried. Her school is about to be inspected. She doesn't want to let on that on that a few of Mr Smith's class didn't make the grade. Her solution: She now wants your code to produce an additional line (or two) of output, giving the average mark for all of Mr Smith's class, and the average grade.

Can you help her (Mr Smith has told her how good you are!)