Name: Class:

Task 1

A CSV file contains one record on each row with each field separated by commas.

(a) Using a text editor such as Notepad, create a file called “marks.txt”. Then add the following data in CSV format:

|  |  |
| --- | --- |
| Jo | 65 |
| Yan | 88 |
| Paul | 76 |
| Daisy | 88 |
| Mabel | 80 |
| Mavis | 79 |
| Anna | 58 |
| Billy | 88 |
| Keith | 56 |

(b) Save the file

Task 2

1. The following pseudocode algorithm writes to a text file containing student names and exam results. Each record has two fields **name** and **mark** separated by commas.

marksFile = open("marks.txt")

moreNames = True

while moreNames:

name = input("Enter student name: ")

mark = input("Enter student mark: ")

marksFile.write(name + "," + mark + "\n")

if input("Add another student (y/n)? ") == "n":

moreNames = False

marksFile.close()

(a) In the code, a Boolean variable called moreNames is created. Why is this used?

(b) The line of code that writes to the file is:

marksFile.write(name + "," + mark + "\n")

What do the following mean?

(i) +

(ii) \n

(iii) marksFile

2. The second program opens the marks file for reading. It reads each record and prints the records of all students who scored a mark of 80 or more in the exam.

marksFile = open("marks.txt", "r")

moreLines = True

while moreLines:

markRec = marksFile.readLine()

if markRec == ""

moreLines = False

else

split moreLines into field[0] and field[1]

name = field[0]

mark = int(field[1])

if mark >= 80

print(name + "," + str(mark))

marksFile.close()

(a) What are the variable types of the variables name and mark?

(b) There are some records on the file. Write an algorithm which reads the names and marks and prints the name and mark of the student with the highest mark. (Assume no two students achieved the same mark.)

|  |
| --- |
|  |

3. How could you amend the algorithm so that if more than one student achieves the top mark, their names are printed?

Test data:

