Program 3

Java

Due: Nov 1, 2005

Write a Java program that has three parallel arrays defined in the following way:

name:
Ozzy
Madonna
Pele
Maradonna
Posh
Leonardo

_	age:				
	15				
	14				
	17				
	14				
	16				
	18				
•					

qpa:
1.23
3.52
3.41
2.88
2.65
3.87

Parallel arrays are set up so that each array, for a given index value, contains information that is related. For example, the person in array name[index = 2] has a grade average in array qpa[index=2], and the age of the person is age[index=2] years old. So "Pele" is 17 years old and has a qpa equal to 3.41.

Create these arrays with these initial values stored in them. Write a program that has three **public static** functions defined in the following table:

Method name	Return type	Input arguments	Actions
top_of_class	String	name[], qpa[]	Exams entries in array qpa and
			returns the name of the person
			with the highest qpa.
avg	double	qpa	Returns the average qpa of all
_			people.
how_old	int	name[], target,	Returns the age of the person
		age[]	whose name is stored in
			variable target [String]

Your main method will have a loop that will ask the user what option she wants to take and display 4 choices:

- 1. find and display the student with the highest qpa
- 2. calculate and display the average qpa for all students
- 3. find the age of a specific person [this will require an additional input for a name], display the name and age
- 4. quit

While the user selects 1 through 3, process the request by calling the appropriate method, display the 4 options and ask the user for her input. Keep processing requests until the user selects option 4.

Document each method in your program with internal comments. Turn in your program according to usual submission instructions.