

HOMEWORK 1 Calculate Student's GPA
Due Date: 9/29/2006

Problem statement: Page 115, problem 22.

Requirement

Follow the following steps to solve the problem:

1. Problem analysis and specification.
 - What the problem is,
 - What the input and output information are
2. Data organization and algorithm design.
 - How to organize and store data, define variables (name and type)
 - Develop algorithms - procedures to process the data and produce the required output, draw flow chart to represent the algorithm
3. Write the program code. You need have the problem specification included as the comments in the beginning. You need write appropriate comments to explain what you are doing.
4. Execute the program with test data:

Student number: 12345678

Old GPA: 3.0

Old # of course credits: 20

New courses:

	<i>Course 1</i>	<i>Course 2</i>	<i>Course 3</i>	<i>Course 4</i>
<i>credit</i>	<i>1.0</i>	<i>3.0</i>	<i>4.0</i>	<i>2.0</i>
<i>grade</i>	<i>3.5</i>	<i>3.0</i>	<i>2.0</i>	<i>3.0</i>

What to submit (submit it on class 9/29/2006)

1. The written specification
2. Variables names and types
3. Flow Chart
4. Source program
5. Sample execution result with test data

Demo your homework on 9/29/2006 Lab (required).

Help available

1. Instructor office hour: MW 2-3:30PM, Fri. 2-3PM
2. TA Tutoring hours: Mon. 3 – 5PM (DION 311), Thursday 6:30-8:30PM (DION 303)
3. If you finish your lab earlier, you can use the lab time to work on your homework.

Grading Policy

1. Written specification and flow chart (1.5)
2. Source code with good comments (2)
3. Test result and demo (1.5)