

IT210 Business Applications with C++

Program Assignment 3

Credit Card Interest Calculator

Purpose

Write a C++ program that will read customer information from an **input text file** and calculate the interest on unpaid credit card balances of **one or more customers** of a bank using the average daily balance. **Results will be output to the monitor and text file.**

Program Input

Each record in the input text file shall consist of:

- Customer's first and last name ;
- Credit card number
- Balance shown in the bill (*netBalance*)
- Payment made (*payment*)
- Days in the billing cycle (*d1*)
- Number of days payment made before billing cycle (*d2*)

Calculate the average daily balance based on the equation given below:

$$\text{averageDailyBalance} = (\text{netBalance} * d1 - \text{payment} * d2) / d1$$

$$\text{interest} = \text{averageDailyBalance} * \text{APR} / (100 * 12)$$

where APR depends on the average daily balance as shown below

averageDailyBalance < \$100 APR = 5%

averageDailyBalance between \$100 and \$1000 APR = 10%

averageDailyBalance > \$1000 APR = 15%

Your program must read from the input text file provided to you and output results to both the monitor and an output text file. Your program's output must be identical to the provided screenshots, and output text file.

You may modify your previous assignment to achieve the objective.

Submission Requirements:

Submission requirements are listed under Program Submission Requirements. You are required to include a flow chart, a program narrative which describes the objective and procedures, input screenshots, source code with comments (font size 12, word wrap and line numbers in margin), output screenshots with white background and black text, with required files on the flash drive

To copy an output window to Word:

1. Select the output window, and then press ALT + PRINT SCREEN.
2. Open Word.
3. Type the descriptive header.
4. Paste (CTRL + V) the current contents of the clipboard (the output window screenshot) into the document.
5. Print two copies of the screenshots document. Place one copy in the input section and the other in the output section