

# Project 1

## Outcome:

1. Write, compile, run and debug a C++ program.
2. Apply logic and basic mathematics to solve a problem.

## Specifications:

Our boss at Big Bank, Inc. wants us to write a C++ program that calculates loan balances if not payments are made on loans. We are to prompt the user for the original loan amount, the current loan amount, and the annual interest rate on the loan (in whole per cent amounts; ex: 9 for 9%). We are to calculate and display what the balance would be after one year, two years, three years, and four years. Remember, we are assuming that no loan payments are being made. If the balance calculated after interest for the corresponding year is greater than the initial loan amount you should display a message stating that the customer has exceeded the initial amount by X quantity (you have to specify the amount and not use the variable X). The interest rate will need to be accepted as a whole number (ex: 10 for 10%), but \*hint\* to obtain the interest rate as a decimal for calculations you will need to divide by 100.

1. The program should follow the example (Display 1.8) provided in the text.
2. The program will need to display clear and explicit instructions for the end user to input the initial amount, current amount, and interest rate.
3. The program will need to display clear statements for the current balance and amount over the initial loan amount (if any) for each of the four years.

## Submission Requirements:

1. Compile and run your program one last time before submitting it.
2. The name of your program file should be: your first name, underscore, your last name, underscore, the word 'project', underscore, then the project number, followed by the .cpp extension. For example, if your name is John Smith, and you are submitting project 1, your file should be called John\_Smith\_Project\_1.cpp.
3. Submit the file by selecting Submit Assignment found at the top right of this page. Follow instructions to upload and submit file.
4. Be sure to review the university policy on academic dishonesty. This is an individual project.

5. In the dropbox notes please paste the following after reviewing and understanding it: "I certify that the submitted document represents only my work, and that I have not violated UWF's academic integrity guidelines, nor any of the specific ones in this class per the syllabus."

**Important Notes:**

1. Projects will be graded on whether they correctly solve the problem, and whether they adhere to good programming practices.
2. Projects must be submitted by the time specified on the due date. Projects submitted after that time will be penalized (or not accepted) based on the late policy in the syllabus.
3. Please review UWF's academic conduct policy. Note that viewing another student's solution, whether in whole or in part, is considered academic dishonesty. Also note that submitting code obtained through the Internet or other sources, whether in whole or in part, is considered academic dishonesty. All programs submitted will be reviewed for evidence of academic dishonesty, and all violations will be handled accordingly. Please do not force my hand.