# Purpose

This program will calculate the interest and average daily balance given input credit card information.

# Procedures

The user will be prompted for their first & last name, credit card number (and given a chance to correct that if needed), the balance on the card, the payment they made, the number of days in the billing cycle, as well as the number of days that payment was made before the cycle began. All values will be shown as the user enters them.

Variables will be assigned for the first & last name, card number, card balance, the payment made, days in the billing cycle, and number of days that payment was made before the cycle

The program will calculate the average daily balance, as well as interest on the unpaid balance

The program will output a table showing the user’s name, card number, card balance, APR, payment made, days in the billing cycle, number days that payment was made before the start of the billing cycle, average daily balance, and interest on the unpaid balance

# Preprocessor Directives

* #include <iostream> iostream is the standard input/output library
* #include <iomanip> iomanip is the standard manipulation library
* #include “rslib.h” rslib is my custom header that defines the Heading of the program
* #include “rsfunct.h” rsfunct is my custom header that prototypes functions for the average daily balance calculator

# Function Prototypes

## Rsfunct.h

### These functions can be found in rsfunct.cpp

* void printInstructions() – this displays the instructions to the end user on how to complete this program
* string getUserFirstName() – returns the user’s first name from the global string
* void setUserFirstName(string) – pushes the specified string to the global user first name variable
* string getUserLastName() – returns the user’s last name from the global string
* void setUserLastName(string) – pushes the specified string to the global user last name variable
* string getCardNumber() – returns the credit card number that is entered as part of the function

### These functions can be found in cardproc.cpp

* void displayStatement(string, float, float, int, int) – displays the final table showing all aspects of the credit card data
* float getAPR(int) – gets the correct APR, as a decimal, given the card balance
* float getInterest(float) – returns the interest on the unpaid balance, in dollars

## Rslib.h

### These functions can be found in rslib.cpp

* void buildHeader(int, int, int, int, int, int) – Builds our welcome header. Program Number, Assignment Number, and when it’s Due
* void buildLine(char, int) – Builds a separator line of the requested character for the requested length, then inserts a newline character at the end
* void setDueDate(int, int, int) – Sets the due day, month, and year

# Non-Prototyped Functions used:

## int main()

Purpose: this is the function that starts the program. Calls to all other functions, defined above in the Function Prototypes section are called here.