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Program 8

SE114.11

PURPOSE:

A credit report is to be prepared. Write a program to prepare this report.

The program should be well documented.

VARIABLE DICTIONARY:

REPRESENTS VARIABLE

Account number account\_number

Balance of all customers all\_balance

Credit of all customers all\_credit

Purchases of all customers all\_purchases

Available credit available\_credit

Credit limit credit\_limit

Customer balance customer\_balance

Customer purchases customer\_purchases

Number of processed customers customers\_processed

First name first\_name

First run switch first\_run

Negative credit as positive flipped\_credit

Last name last\_name

Negative one for an equation negative\_flip

Run reply run\_reply

Totals switch totals\_switch

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#include <iostream>

#include <string>

using namespace std;

char first\_run;

char run\_reply;

char totals\_switch;

string first\_name;

string last\_name;

double account\_number;

double all\_balance;

double all\_credit;

double all\_purchases;

double available\_credit;

double credit\_limit;

double customer\_balance;

double customer\_purchases;

double customers\_processed;

double flipped\_credit;

double negative\_flip;

void setup\_function();

void input\_function();

void process\_output\_function();

void totals\_function();

int main()

{

totals\_switch = 'N';

first\_run = 'Y';

system("cls");

cout << "Do you want to run the credit report application? (Y/N) ";

cin >> run\_reply;

run\_reply = toupper(run\_reply);

while (run\_reply != 'Y' && run\_reply != 'N')

{

cout << "Error" << endl;

cout << "Enter either a Y or N " << endl;

cin >> run\_reply;

run\_reply = toupper(run\_reply);

}

system ("cls");

while (run\_reply == 'Y')

{

if (first\_run == 'Y')

{

setup\_function();

first\_run = 'N';

}

input\_function();

process\_output\_function();

cout << "Would you like to run another credit report? (Y/N) " << endl;

cin >> run\_reply;

run\_reply = toupper(run\_reply);

while (run\_reply != 'Y' && run\_reply != 'N')

{

cout << "Error" << endl;

cout << "Enter either a Y or N " << endl;

cin >> run\_reply;

run\_reply = toupper(run\_reply);

}

system("cls");

}

if (totals\_switch == 'Y')

{

totals\_function();

}

return 0;

}

void setup\_function()

{

all\_balance = 0;

all\_purchases = 0;

all\_credit = 0;

credit\_limit = 1500;

customers\_processed = 0;

totals\_switch = 'Y';

}

void input\_function()

{

cout << "Account number: ";

cin >> account\_number;

cout << "Last name: ";

cin >> last\_name;

cout << "First name: ";

cin >> first\_name;

cout << "Customer balance: ";

cin >> customer\_balance;

cout << "Customer purchases: ";

cin >> customer\_purchases;

system("cls");

}

void process\_output\_function()

{

customers\_processed = customers\_processed + 1;

all\_balance = all\_balance + customer\_balance;

all\_purchases = all\_purchases + customer\_purchases;

available\_credit = credit\_limit - (customer\_balance + customer\_purchases);

if (available\_credit >= 0)

{

cout << "The following credit report is prepared for " << first\_name << " " << last\_name << endl;

cout << "You have $" << available\_credit << " of available credit in account " << account\_number << endl;

all\_credit = all\_credit + available\_credit;

}

else

{

negative\_flip = -1;

flipped\_credit = available\_credit \* negative\_flip;

cout << "The following credit report is prepared for " << first\_name << " " << last\_name << endl;

cout << "You have exceeded your credit limit by $" << flipped\_credit << " in account " << account\_number << endl;

}

}

void totals\_function()

{

cout << "Total number of customers processed: " << customers\_processed << endl;

cout << "Total balance due for all customers is: $" << all\_balance << endl;

cout << "Total purchases for all customers is: $" << all\_purchases << endl;

cout << "Total available credit for all customers is: $" << all\_credit << endl;

system("PAUSE");

}