

9.1.cpp

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1 //Savings.cpp
2 //Created by Kripa Kini on 4/26/19
3
4 #include <iostream>
5 #include <iomanip>
6 #include <cmath>
7 using namespace std;
8
9 double getSavingsBalance(int amount, double rate, int y) {
10     double balance = 0.0;
11     balance = amount * pow((1 + rate), y);
12     return balance;
13 }
14 double getCheckingBalance(int amount, double rate, int y) {
15     double balance = 0.0;
16     balance = amount * pow((1 + rate), y);
17     return balance;
18 }
19 void displayBalance(int year, double checkingBalance, double savingBalance) {
20     cout << "Year " << year << endl;
21     cout << "Checking: $" << checkingBalance << endl;
22     cout << "Savings: $" << savingBalance << endl;
23 }
24
25 int main() {
26     int sDeposit = 0;
27     int cDeposit = 0;
28     double sinterestRate = 0.0;
29     double cinterestRate = 0.0;
30     double sacctBalance = 0.0;
31     double cacctBalance = 0.0;
32
33     cout << "Savings Deposit: ";
34     cin >> sDeposit;
35     cout << "Checking Deposit: ";
36     cin >> cDeposit;
37     cout << "Rate for Savings Account (in decimal form): ";
38     cin >> sinterestRate;
39     cout << "Rate for Checking Account (in decimal form): ";
40     cin >> cinterestRate;
41
42     cout << fixed << setprecision(2);
43     for(int year = 1; year < 4; year++) {
44         cacctBalance = getCheckingBalance(cDeposit, cinterestRate, year);
45         sacctBalance = getSavingsBalance(sDeposit, sinterestRate, year);
46         displayBalance(year, sacctBalance, cacctBalance);
47     }
48     return 0;
49 }
50

```

2. bash

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Last login: Wed Apr 10 22:02:21 on ttys000
kripas-mbp:~ kripak$ cd Documents
kripas-mbp:Documents kripak$ cd Ohlone
kripas-mbp:Ohlone kripak$ g++ 9.1.cpp
kripas-mbp:Ohlone kripak$ ./a.out
Savings Deposit: 1200
Checking Deposit: 600
Rate for Savings Account (in decimal form): 0.1
Rate for Checking Account (in decimal form): 0.05
Year 1
Checking: $1320.00
Savings: $630.00
Year 2
Checking: $1452.00
Savings: $661.50
Year 3
Checking: $1597.20
Savings: $694.58
kripas-mbp:Ohlone kripak$

```