Task 1:

#include<iostream>

#include<string>

using namespace std;

class bank

{

private:

double cbal;

double intrate;

double intearn;

int trans;

int count;

public:

void setdata(double cbal1, double intrate1);

void setintrate(double intrate2);

void makedeposit(double amountdep);

void withdraw(double amtwd);

void calcinterest()

{

intearn = cbal\*(intrate/100);

cbal+=intearn;

}

void countini(int count,int trans1);

void inccount()

{

count++;

}

double getcount()

{

return count;

}

double getinterestrate(double intrate);

double getbalance(double cbal);

double getinterest(double intearn);

int gettransactions(int trans1);

};

void bank::countini(int c,int trans1)

{

count = c;

trans = trans1;

}

void bank::setdata(double cbal1, double intrate1)

{

cbal = cbal1;

intrate = intrate1;

}

void bank::makedeposit(double amountdep)

{

cbal += amountdep;

trans++;

}

void bank:: withdraw(double amtwd)

{

if (amtwd < cbal)

{

cbal -=amtwd;

trans++;

}

else {

cout << "error";

}

}

double bank:: getinterestrate(double intrate3)

{

cout << "\nenter interest rate : ";

cin >> intrate3;

intrate = intrate3;

return intrate;

}

double bank::getbalance(double cbal1)

{

return cbal;

}

double bank::getinterest(double intearn1)

{

return intearn;

}

int bank::gettransactions(int trans1)

{

inccount();

trans += trans1;

return trans;

}

int main()

{

double temp = (4.5);

bank account;

account.countini(0,0);

account.setdata(0, temp);

int choice=0,amoun=0;

double amount=0, rate=0;

do {

cout << "1. Make a deposit" << endl;

cout << "2. Make a withdrawal" << endl;

cout << "3. Calculate interest" << endl;

cout << "4. Get current balance" << endl;

cout << "5. Get current interest rate" << endl;

cout << "6. Get current interest earned" << endl;

cout << "7. Get number of transactions" << endl;

cout << "8. Exit" << endl;

cout << "Enter your choice: ";

cin >> choice;

switch (choice) {

case 1:

cout << "Enter the amount to deposit: ";

cin >> amount;

account.makedeposit( amount);

break;

case 2:

cout << "Enter the amount to withdraw: ";

cin >> amount;

account.withdraw(amount);

break;

case 3:

account.calcinterest();

cout << "Interest calculated and added to the account." << endl;

break;

case 4:

cout << "Current balance: $" << account.getbalance(amount)<<endl;

break;

case 5:

cout << "Current interest rate: " << account.getinterestrate(amount) << "%" << endl;

break;

case 6:

cout << "Interest earned for the current period: $" << account.getinterest(amount) << endl;

break;

case 7:

cout << "Number of transactions for the current period: " << account.gettransactions(amoun) << endl;

break;

case 8:

cout << "Exiting program..." << endl;

break;

default:

cout << "Invalid choice. Please try again." << endl;

}

} while (choice != 8);

}

