

Name: Nur Afsana

ID: 20244103109

Problem Name: Banking System.

```
#include <iostream>

#include <iomanip>

using namespace std;

class BankUser {
public:
    string name;
    int accountNumber;
    double balance;

    // Static interest rates
    static double fdrRate;
    static double dpsRate;

    void create(string n, int acc, double bal) {
        name = n;
        accountNumber = acc;
        balance = bal;

        cout << "Account created: " << name << ", #" << acc << ", Balance: $" << bal << endl;
    }

    void deposit(double amount) {
        balance += amount;

        cout << name << " deposited $" << amount << ". New balance: $" << balance << endl;
    }
}
```

```

void withdraw(double amount) {
    if (amount > balance)
        cout << name << " has insufficient balance.\n";
    else {
        balance -= amount;
        cout << name << " withdrew $" << amount << ". Remaining: $" <<
balance << endl;
    }
}

void fdr(double amount, int years) {
    double interest = amount * (fdrRate / 100) * years;
    cout << name << "'s FDR for $" << amount << " in " << years << "
years = $" << (amount + interest) << " (Interest: $" << interest << ")\n";
}

void dps(double monthly, int years) {
    int months = years * 12;
    double total = monthly * months;
    double interest = total * (dpsRate / 100);
    cout << name << "'s DPS over " << years << " years = $" << (total
+ interest) << " (Interest: $" << interest << ")\n";
}

void show() {
    cout << "Name: " << name << ", Account: " << accountNumber << ",
Balance: $" << balance << endl;
}

};

// Set interest rates
double BankUser::fdrRate = 7.0;
double BankUser::dpsRate = 5.0;

int main() {

```

```
BankUser users[10];

// Create 10 users
for (int i = 0; i < 10; i++) {
    users[i].create("User" + to_string(i + 1), 1000 + i, 1000 + i *
500);
}

cout << "\n--- Transactions ---\n";
users[0].deposit(200);
users[1].withdraw(300);
users[2].fdr(1000, 2);    // 2-year FDR
users[3].dps(150, 3);    // 3-year DPS

cout << "\n--- All Accounts ---\n";
for (int i = 0; i < 10; i++) {
    users[i].show();
}

return 0;
}
```

Account created: User3, #1002, Balance: \$2000
Account created: User4, #1003, Balance: \$2500
Account created: User5, #1004, Balance: \$3000
Account created: User6, #1005, Balance: \$3500
Account created: User7, #1006, Balance: \$4000
Account created: User8, #1007, Balance: \$4500
Account created: User9, #1008, Balance: \$5000
Account created: User10, #1009, Balance: \$5500

--- Transactions ---

User1 deposited \$200. New balance: \$1200

User2 withdrew \$300. Remaining: \$1200

User3's FDR for \$1000 in 2 years = \$1140 (Interest: \$140)

User4's DPS over 3 years = \$5670 (Interest: \$270)

--- All Accounts ---

Name: User1, Account: 1000, Balance: \$1200
Name: User2, Account: 1001, Balance: \$1200
Name: User3, Account: 1002, Balance: \$2000
Name: User4, Account: 1003, Balance: \$2500
Name: User5, Account: 1004, Balance: \$3000
Name: User6, Account: 1005, Balance: \$3500
Name: User7, Account: 1006, Balance: \$4000
Name: User8, Account: 1007, Balance: \$4500
Name: User9, Account: 1008, Balance: \$5000
Name: User10, Account: 1009, Balance: \$5500

Process returned 0 (0x0) execution time : 0.069 s

Press any key to continue.

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