

```

1  #include <iostream>
2  #include <string>
3  using namespace std;
4
5  class BankAccount {
6  private:
7      int accountNumber;
8      double balance;
9      string accountHolderName;
10
11 public:
12     // Constructor
13     BankAccount(int accNum, double initialBalance, string holderName)
14         : accountNumber(accNum), balance(initialBalance), accountHolderName(holderName) {}
15
16     // Function to deposit an amount
17     void deposit(double amount) {
18         if (amount > 0) {
19             balance += amount;
20             cout << "Deposited " << amount << " into account " << accountNumber << ".\n";
21         } else {
22             cout << "Invalid deposit amount.\n";
23         }
24     }
25
26     // Function to withdraw an amount
27     void withdraw(double amount) {
28         if (amount > 0 && amount <= balance) {
29             balance -= amount;
30             cout << "Withdrew " << amount << " from account " << accountNumber << ".\n";
31         } else {
32             cout << "Insufficient balance or invalid amount for account " << accountNumber << ".\n";
33         }
34     }
35
36     // Function to display balance
37     void displayBalance() const {
38         cout << "Account Number: " << accountNumber
39             << ", Account Holder: " << accountHolderName
40             << ", Balance: " << balance << "\n";
41     }
42 };
43
44 int main() {
45     // Array to store multiple bank accounts
46     const int numAccounts = 3;
47     BankAccount accounts[numAccounts] = {
48         BankAccount(101, 500.0, "Stephen"),
49         BankAccount(102, 1000.0, "Elisha"),
50         BankAccount(103, 750.0, "Gachoka")
51     };
52
53     // Display each account's details
54     cout << "Initial Account Details:\n";
55     for (int i = 0; i < numAccounts; i++) {
56         accounts[i].displayBalance();
57     }
58
59     // Perform deposit and withdrawal on each account
60     cout << "\nPerforming transactions...\n";
61     for (int i = 0; i < numAccounts; i++) {
62         double depositAmount = 200.0; // Example deposit amount
63         double withdrawalAmount = 150.0; // Example withdrawal amount
64
65         accounts[i].deposit(depositAmount);
66         accounts[i].withdraw(withdrawalAmount);

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67     }
68
69     // Display each account's details after transactions
70     cout << "\nAccount Details After Transactions:\n";
71     for (int i = 0; i < numAccounts; i++) {
72         accounts[i].displayBalance();
73     }
74
75     return 0;
76 }
77
```