# BANK MANAGEMENT SYSTEM


by

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Assignment submitted as a course assignment

for CS1143 - Object Oriented Programming

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```
#include <iostream>
#include <string>
using namespace std;
class BankAccount {
private:
    static int totalAccounts;
    int accountNumber;
    string accountHolder;
    double balance;
public:
    BankAccount(string holderName) {
        accountHolder = holderName;
        balance = 0.0;
        accountNumber = ++totalAccounts;
    }
    void deposit(double amount) {
        if (amount > 0) {
            balance += amount;
            cout << "Deposited: $" << amount << endl;
        }
        else {
            cout << "Invalid deposit amount." << endl;
        }
    }
    void withdraw(double amount) {
```

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        if (amount > 0 && amount <= balance) {
            balance -= amount;
            cout << "Withdrawn: $" << amount << endl;
        }
        else {
            cout << "Insufficient funds or invalid amount." << endl;
        }
    }
    double checkBalance() const {
        return balance;
    }
    int getAccountNumber() const {
        return accountNumber;
    }
    int getTotalAccounts() {
        return totalAccounts;
    }
};
int BankAccount::totalAccounts = 0;
void displayMenu() {
    cout << "\nBank Management System Menu:\n";
    cout << "1. Create Account\n";
    cout << "2. Deposit\n";
    cout << "3. Withdraw\n";
    cout << "4. Check Balance\n";
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    cout << "5. Total Accounts\n";
    cout << "6. Exit\n";
}
int main() {
    BankAccount account1("Alice");
    BankAccount account2("Bob");
    BankAccount account3("Charlie");
    int choice;
    while (true) {
        displayMenu();
        cout << "Enter your choice: ";
        cin >> choice;
        switch (choice) {
        case 1: {
            string holderName;
            cout << "Enter account holder's name: ";
            cin.ignore();
            getline(cin, holderName);
            BankAccount newAccount(holderName);
            cout << "Account created successfully. Account Number: " <<
newAccount.getAccountNumber() << endl;
            break;
        }
        case 2: {
            double amount;
            cout << "Enter amount to deposit for Alice (Account 1): ";
```

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    cin >> amount;
    account1.deposit(amount);
    break;
}
case 3: {
    double amount;
    cout << "Enter amount to withdraw for Alice (Account 1): ";
    cin >> amount;
    account1.withdraw(amount);
    break;
}
case 4: {
    cout << "Alice's current balance: $" << account1.checkBalance() << endl;
    break;
}
case 5: {
    cout << "Total accounts created: " << account1.getTotalAccounts() << endl;
    break;
}
case 6: {
    cout << "Exiting the system." << endl;
    return 0;
}
default: {
    cout << "Invalid choice. Please try again." << endl;
```

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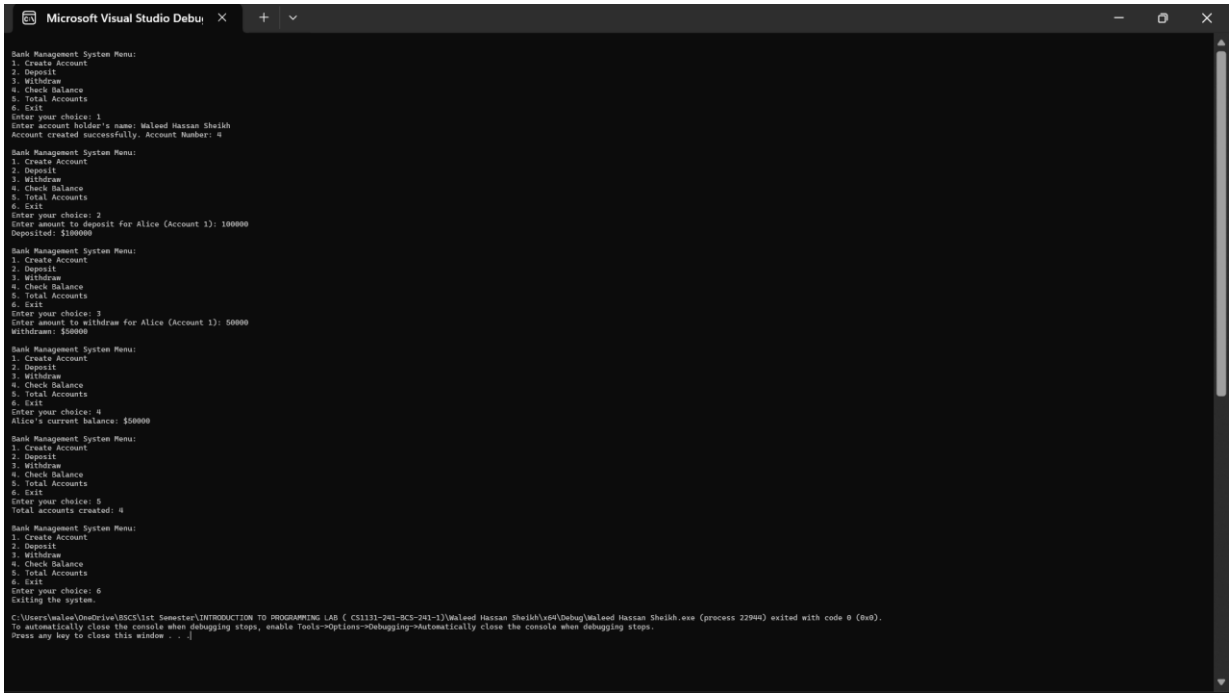
            break;
        }
        }
    }
}
```


Microsoft Visual Studio Debu
Bank Management System Menu:
1. Create Account
2. Deposit
3. Withdraw
4. Check Balance
5. Total Accounts
6. Exit
Enter your choice: 1
Enter account holder's name: Waleed Hassan Sheikh
Account created successfully. Account Number: 4
Bank Management System Menu:
1. Create Account
2. Deposit
3. Withdraw
4. Check Balance
5. Total Accounts
6. Exit
Enter your choice: 2
Enter amount to deposit for Alice (Account 1): 100000
Deposited: $100000
Bank Management System Menu:
1. Create Account
2. Deposit
3. Withdraw
4. Check Balance
5. Total Accounts
6. Exit
Enter your choice: 3
Enter amount to withdraw for Alice (Account 1): 50000
Withdrawn: $50000
Bank Management System Menu:
1. Create Account
2. Deposit
3. Withdraw
4. Check Balance
5. Total Accounts
6. Exit
Enter your choice: 4
Alice's current balance: $50000
Bank Management System Menu:
1. Create Account
2. Deposit
3. Withdraw
4. Check Balance
5. Total Accounts
6. Exit
Enter your choice: 5
Total accounts created: 4
Bank Management System Menu:
1. Create Account
2. Deposit
3. Withdraw
4. Check Balance
5. Total Accounts
6. Exit
Enter your choice: 6
Exiting the system.
C:\Users\walee\OneDrive\BSCS\1st Semester\INTRODUCTION TO PROGRAMMING LAB ( CS1131-241-BCS-241-1)\Waleed Hassan Sheikh\x64\Debug\Waleed Hassan Sheikh.exe (process 22944) exited with code 0 (0x0).
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.
Press any key to close this window . . .