

```
import java.util.Scanner;
```

```
class BankAccount {
```

```
    private double balance;
```

```
    public BankAccount(double initial_balance) {
```

```
        this.balance = initial_balance;
```

```
    }
```

```
    public boolean deposit(double amount) {
```

```
        if (amount > 0) {
```

```
            this.balance += amount;
```

```
            return true;
```

```
        } else {
```

```
            return false;
```

```
        }
```

```
    }
```

```
    public boolean withdraw(double amount) {
```

```
        if (0 < amount && amount <= this.balance) {
```

```
            this.balance -= amount;
```

```
            return true;
```

```
        } else {
```

```
            return false;
```

```
        }
```

```
    }
```

```
    public double check_balance() {  
        return this.balance;  
    }  
}
```

```
class ATM {  
    private BankAccount bank_account;  
  
    public ATM(BankAccount bank_account) {  
        this.bank_account = bank_account;  
    }  
  
    public void withdraw(double amount) {  
        if (this.bank_account.withdraw(amount)) {  
            System.out.println("Withdrawal successful. Current balance: " +  
this.bank_account.check_balance());  
        } else {  
            System.out.println("Insufficient funds or invalid amount.");  
        }  
    }  
  
    public void deposit(double amount) {  
        if (this.bank_account.deposit(amount)) {  
            System.out.println("Deposit successful. Current balance: " +  
this.bank_account.check_balance());  
        }  
    }  
}
```

```
    } else {  
        System.out.println("Invalid amount for deposit.");  
    }  
}
```

```
public void check_balance() {  
    System.out.println("Current balance: " + this.bank_account.check_balance());  
}  
}
```

```
public class Main {  
    public static void main(String[] args) {  
        Scanner scanner = new Scanner(System.in);  
        System.out.print("Enter initial balance: ");  
        double initial_balance = scanner.nextDouble();  
        BankAccount account = new BankAccount(initial_balance);  
        ATM atm = new ATM(account);  
        while (true) {  
            System.out.println("\nATM Menu:");  
            System.out.println("1. Withdraw");  
            System.out.println("2. Deposit");  
            System.out.println("3. Check Balance");  
            System.out.println("4. Exit");  
            System.out.print("Enter choice (1/2/3/4): ");  
            String choice = scanner.next();  
            if (choice.equals("1")) {
```

```
        System.out.print("Enter amount to withdraw: ");
        double amount = scanner.nextDouble();
        atm.withdraw(amount);
    } else if (choice.equals("2")) {
        System.out.print("Enter amount to deposit: ");
        double amount = scanner.nextDouble();
        atm.deposit(amount);
    } else if (choice.equals("3")) {
        atm.check_balance();
    } else if (choice.equals("4")) {
        System.out.println("Thank you for using our ATM. Goodbye!");
        break;
    } else {
        System.out.println("Invalid choice. Please select again.");
    }
}
scanner.close();
}
}
```