```
import java.util.Scanner;

public class BankAccount {
    private double balance;

    public BankAccount(double balance) {
        this.balance = balance;
    }

    public boolean deposit(double amount) {
        if (amount > 0) {
            balance += amount;
            return true;
        } else {
            System.out.println("Invalid deposit amount.");
            return false;
        }
    }

    public boolean withdraw(double amount) {
        if (amount <= balance) {
            balance -= amount;
            return true;
        } else {
            System.out.println("Insufficient funds.");
            return false;
        }
    }
```

```
    public double checkBalance() {
        return balance;
    }
}

class ATM {
    private BankAccount bankAccount;
    private Scanner scanner;

    public ATM(BankAccount bankAccount) {
        this.bankAccount = bankAccount;
        this.scanner = new Scanner(System.in);
    }

    public void displayMenu() {
        System.out.println("Welcome to the ATM!");
        System.out.println("1. Withdraw");
        System.out.println("2. Deposit");
        System.out.println("3. Check Balance");
        System.out.println("4. Exit");
    }

    public void withdraw() {
        System.out.print("Enter the amount to withdraw: ");
        double amount = scanner.nextDouble();
        if (bankAccount.withdraw(amount)) {
            System.out.println("Withdrawal successful. Remaining balance: " + bankAccount.checkBalance());
        }
    }
```

```
public void deposit() {
    System.out.print("Enter the amount to deposit: ");
    double amount = scanner.nextDouble();
    if (bankAccount.deposit(amount)) {
        System.out.println("Deposit successful. Updated balance: " + bankAccount.checkBalance());
    }
}

public void checkBalance() {
    System.out.println("Current balance: " + bankAccount.checkBalance());
}

public void start() {
    while (true) {
        displayMenu();
        System.out.print("Enter your choice: ");
        String choice = scanner.next();
        switch (choice) {
            case "1":
                withdraw();
                break;
            case "2":
                deposit();
                break;
            case "3":
                checkBalance();
                break;
            case "4":
```

```
                System.out.println("Thank you for using the ATM. Goodbye!");
                return;
            default:
                System.out.println("Invalid choice. Please try again.");
                break;
        }
      }
    }

    public static void main(String[] args) {
      BankAccount account = new BankAccount(1000);
      ATM atm = new ATM(account);
      atm.start();
    }
}
```