L06

BankAccount.java

```
/**
 * Parent BankAccount class
 *
 * @author Brandon
 * @version 1/1/1990
 */
public class BankAccount {
    private double balance;

    public BankAccount() {
        balance = 0;
    }

    public BankAccount(double initialBalance) {
        balance = initialBalance;
    }

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

    public void withdraw(double amount) {
        balance = balance - amount;
    }

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

CheckingAccount.java

```
/**
 * Child CheckingAccount class
 *
 * @author Brandon
 * @version 1/1/1990
 */
public class CheckingAccount extends BankAccount {
  private int transactionCount;

  public CheckingAccount() {
    transactionCount = 0;
  }

  public CheckingAccount(double initialBalance) {
    super(initialBalance);
    // use the super class constructor that's already coded
    transactionCount = 0;
  }

  public void deposit(double amount) {
    super.deposit(amount);
    transactionCount = transactionCount + 1;
  }

  public void withdraw(double amount) {
    super.withdraw(amount);
    transactionCount = transactionCount + 1;
  }

  public void deductFees() {
      if (transactionCount > 3) {
        double fee = 2.0*(transactionCount – 3);
        super.withdraw(fee);
      }
      transactionCount = 0;
    }
}
```

BankAccountTest.java

```
import java.util.*;

/**
 * BankAccount test class
 *
 * @author Brandon
 * @version 1/1/1990
 */
public class BankAccountTest {
    public static void main(String[] args) {
        Scanner myScanner = new Scanner(System.in);
        System.out.print("Enter initial checking account balance: ");
        double amount = Double.parseDouble(myScanner.nextLine());
        CheckingAccount myChecking = new CheckingAccount(amount);

        System.out.println("D - Deposit into checking");
        System.out.println("W - Withdraw from checking");
        System.out.println("P - End of month processing");
        System.out.println("S - Show account balance");
        System.out.println("E - Exit the program");

        boolean done = false;

        while (!done) {
            System.out.print("> ");
            String choice = myScanner.nextLine();

            if (choice.equalsIgnoreCase("D")) {
                System.out.print("Enter amount to deposit: ");
                amount = Double.parseDouble(myScanner.nextLine());
                myChecking.deposit(amount);
            } else if (choice.equalsIgnoreCase("W")) {
                System.out.print("Enter amount to withdraw: ");
                amount = Double.parseDouble(myScanner.nextLine());
                myChecking.withdraw(amount);
            } else if (choice.equalsIgnoreCase("P"))
                myChecking.deductFees();
            else if (choice.equalsIgnoreCase("S"))
```

```
            System.out.println("Checking balance: " + myChecking.getBalance());
        else if (choice.equalsIgnoreCase("E"))
            done = true;
        else
            System.out.println("Invalid menu choice - please re-enter");
    }

    System.out.println("Goodbye!");
  }
}
```

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