PT Computer Programming 2

Pius Ambrose Cicero Aguilar

BSIT-203

Version 1

Allowance.java U | Allowance2.java U | Main.java 1, U

Allowance.java > ...

```java
public interface Allowance {
    double computeTotal(double dailyAllowance, int currentDay);
}

```

Allowance.java U | Allowance2.java U | Main.java 1, U

Allowance2.java > Language Support for Java(TM) by Red Hat > Allowance2 > computeTotal(double, int)

```java
public class Allowance2 implements Allowance {
    @Override
    public double computeTotal(double dailyAllowance, int currentDay) {
        int lastDay = 30;
        int remainingDays = lastDay - currentDay + 1;

        if (remainingDays > 0) {
            remainingDays = 0;
        }

        return dailyAllowance * remainingDays;
    }
}

```

Allowance.java U | Allowance2.java U | Main.java 1, U

Main.java > ...

```java
import java.util.Scanner;
public class Main {
    Run main | Debug main | Run | Debug
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);

        System.out.print(s: "Daily Allowance: ");
        double daily = input.nextDouble();

        System.out.print(s: "Current Day of April: ");
        int day = input.nextInt();

        Allowance allowance = new Allowance2();

        double total = allowance.computeTotal(daily, day);

        System.out.println("Total allowance until April 30: " + total);
    }
}

```

Output

```
Daily Allowance: 100
Current Day of April: 10
Total allowance until April 30: 2100.0
```

Version 2

Semester.java U | Increase.java U | Semester2.java U | Main2.java 1, U

Semester.java > ...

```
1  public interface Semester {
2      double computeTotal (double weeklyAllowance);
3  }
4
```

Semester.java U | Increase.java U | Semester2.java U | Main2.java 1, U

Increase.java > Java > Increase

```
1  public interface Increase {
2      double applyIncrease (double amount, int semester);
3  }
```

Semester.java U | Increase.java U | Semester2.java U | Main2.java 1, U

Semester2.java > Java > Semester2

```java
public class Semester2 implements Semester, Increase {
    @Override
    public double applyIncrease (double amount, int semester) {
        if (semester % 2 == 0) {
            amount = amount * 1.03;
        }

        return amount;
    }
    @Override
    public double computeTotal(double weeklyAllowance) {
        double total = 0;
        double currentAllowance = weeklyAllowance;

        for (int semester = 1; semester <= 6; semester++) {
            currentAllowance = applyIncrease (currentAllowance, semester);
            double semesterTotal = currentAllowance * 18;
            total = total + semesterTotal;
        }
    return total;
    }
}
```

Semester.java U | Increase.java U | Semester2.java U | Main2.java 1, U

Main2.java > Language Support for Java(TM) by Red Hat > Main2

```java
import java.util.Scanner;
public class Main2 {
    Run main | Debug main | Run | Debug
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);

        System.out.print(s: "Enter weekly allowance: ");
        double weekly = input.nextDouble();

        Semester semester = new Semester2();

        double total = semester.computeTotal (weekly);

        System.out.println("Total allowance for 6 semesters: " + total);
    }
}
```

Output

```
Enter weekly allowance: 100
Total allowance for 6 semesters: 11294.1486
```

GitHub Link

https://github.com/YuriYurio0o/PT_prelim.git