

Week 7

1. Vehicle Mileage Tracker

Vehicle Mileage Tracker

locked

Problem

Submissions

Leaderboard

Discussions

Submitted 15 hours ago • Score: 5.00

Status: Accepted



Test Case #0



Test Case #1



Test Case #2

Submitted Code

Language: C++

[Open in editor](#)

```
1 #include <cmath>
2 #include <cstdio>
3 #include <vector>
4 #include <iostream>
5 #include <algorithm>
6 using namespace std;
7
8 class Vehicle{
9     protected:
10     virtual void mileage(string type, int distance)=0;
11 };
12 class Mileage:public Vehicle{
13     public:
14     void mileage(string type, int distance) override{
15         if(type=="car"){
16             cout<<distance/15;
17         }else if(type=="bike"){
18             cout<<distance/40;
19         }
20     }
21 };
22 int main() {
23     /* Enter your code here. Read input from STDIN. Print output to STDOUT */
24     string type;
25     int dis;
26     cin>>type>>dis;
27     if(dis>0){
28         Mileage milese;
29         milese.mileage(type, dis);
30     }
31     return 0;
32 }
33
```

Week 7

2. Payment Gateway Simulation

Payment Gateway Simulation

locked

Problem

Submissions

Leaderboard

Discussions

Submitted 14 hours ago • Score: 5.00

Status: Accepted



Test Case #0



Test Case #1



Test Case #2

Submitted Code

Language: C++

[Open in editor](#)

```
1 #include <cmath>
2 #include <cstdio>
3 #include <vector>
4 #include <iostream>
5 #include <algorithm>
6 using namespace std;
7
8 class Payment{
9     protected:
10     virtual void processPayment(int amount);
11 };
12
13 class Credit:public Payment{
14     public:
15     void processPayment(int amount) override{
16         cout<<amount*1.02;
17     }
18 };
19
20 class Debit:public Payment{
21     public:
22     void processPayment(int amount) override{
23         cout<<amount*1.01;
24     }
25 };
26
27 class UPI:public Payment{
28     public:
29     void processPayment(int amount) override{
30         cout<<static_cast<int>(amount*1.005);
31     }
32 };
33 int main() {
34     /* Enter your code here. Read input from STDIN. Print output to STDOUT */
35     int payment;
36     string mode;
37     cin>>payment>>mode;
38     if(payment>0){
39         if(mode=="credit"){
40             Credit credit;
41             credit.processPayment(payment);
42         }
43         else if(mode=="debit"){
44             Debit debit;
45             debit.processPayment(payment);
46         }
47         else if(mode=="upi"){
48             UPI upi;
49             upi.processPayment(payment);
50         }
51     }
52     return 0;
53 }
```

Week 7

3. Insurance Premium Calculator

Insurance Premium Calculator

locked

Problem

Submissions

Leaderboard

Discussions

Submitted 14 hours ago • Score: 5.00

Status: Accepted



Test Case #0



Test Case #1

Submitted Code

Language: C++

[Open in editor](#)

```
1 #include <cmath>
2 #include <cstdio>
3 #include <vector>
4 #include <iostream>
5 #include <algorithm>
6 using namespace std;
7
8 class Insurance{
9     protected:
10     virtual void calculatePremium(int amount)=0;
11 };
12
13 class HealthInsurance:public Insurance{
14     public:
15     void calculatePremium(int amount) override{
16         cout<<amount*1.10;
17     }
18 };
19
20 class LifeInsurance:public Insurance{
21     public:
22     void calculatePremium(int amount) override{
23         cout<<amount*1.15;
24     }
25 };
26
27 class VehicleInsurance :public Insurance{
28     public:
29     void calculatePremium(int amount) override{
30         cout<<amount*1.05;
31     }
32 };
33
34 int main() {
35     /* Enter your code here. Read input from STDIN. Print output to STDOUT */
36     int amount;
37     string type;
38     cin>>amount>>type;
39     if(amount>0){
40         if(type=="health"){
41             HealthInsurance health;
42             health.calculatePremium(amount);
43         }
44         else if(type=="life"){
45             LifeInsurance life;
46             life.calculatePremium(amount);
47         }
48         else if(type=="vehicle"){
49             VehicleInsurance vehicle;
50             vehicle.calculatePremium(amount);
51         }
52     }
53     return 0;
54 }
```

Week 7

4. Hotel Room Tariff System

Hotel Room Tariff System

locked

Problem

Submissions

Leaderboard

Discussions

Submitted 14 hours ago • Score: 5.00

Status: Accepted



Test Case #0



Test Case #1



Test Case #2

Submitted Code

Language: C++

Open in editor

```
1 #include <cstring>
2 #include <vector>
3 #include <iostream>
4 #include <algorithm>
5 using namespace std;
6
7 class Room{
8     protected:
9     virtual void calculateTariff(int days)=0;
10 };
11
12 class StandardRoom:public Room{
13     public:
14     void calculateTariff(int days) override{
15         cout<<days*1000;
16     }
17 };
18
19 class DeluxeRoom:public Room{
20     public:
21     void calculateTariff(int days) override{
22         cout<<days*2000;
23     }
24 };
25
26 class SuiteRoom:public Room{
27     public:
28     void calculateTariff(int days) override{
29         cout<<days*3000;
30     }
31 };
32
33 int main() {
34     /* Enter your code here. Read input from STDIN. Print output to STDOUT */
35     int days;
36     string type;
37     cin>>days>>type;
38     if(days>0){
39         if(type=="standard"){
40             StandardRoom standard;
41             standard.calculateTariff(days);
42         }
43         else if(type=="deluxe"){
44             DeluxeRoom deluxe;
45             deluxe.calculateTariff(days);
46         }
47         else if(type=="suite"){
48             SuiteRoom suite;
49             suite.calculateTariff(days);
50         }
51     }
52     return 0;
53 }
```

Week 7

5. Shopping Cart Bill

Shopping Cart Bill

Locked

Problem

Submissions

Leaderboard

Discussions

Submitted 14 hours ago • Score: 5.00

Status: Accepted



Test Case #0



Test Case #1



Test Case #2

Submitted Code

Language: C++

[Open in editor](#)

```
1 #include <cmath>
2 #include <cstdio>
3 #include <vector>
4 #include <iostream>
5 #include <algorithm>
6 using namespace std;
7
8 class Product{
9     protected:
10         virtual void calculateBill(int amount)=0;
11 };
12
13 class Grocery:public Product{
14     public:
15         void calculateBill(int amount) override{
16             cout<<amount*1.85;
17         }
18 };
19
20 class Electronics:public Product{
21     public:
22         void calculateBill(int amount) override{
23             cout<<amount*1.18;
24         }
25 };
26
27 class Clothing :public Product{
28     public:
29         void calculateBill(int amount) override{
30             cout<<amount*0.98;
31         }
32 };
33
34 int main() {
35     int amount;
36     string type;
37     cin>>amount>>type;
38     if(amount>0){
39         if(type=="grocery"){
40             Grocery grocery;
41             grocery.calculateBill(amount);
42         }else if(type=="electronics"){
43             Electronics electronics;
44             electronics.calculateBill(amount);
45         }else if(type=="clothing"){
46             Clothing clothing;
47             clothing.calculateBill(amount);
48         }
49     }
50     return 0;
51 }
```

Week 7

6. Cricket Score Analyzer

Cricket Score Analyzer

locked

Problem

Submissions

Leaderboard

Discussions

Submitted 13 hours ago • Score: 5.00

Status: Accepted

✓ Test Case #0

✓ Test Case #1

✓ Test Case #2

Submitted Code

Language: C++

[Open in editor](#)

```
1 #include <cmath>
2 #include <stdio>
3 #include <vector>
4 #include <iostream>
5 #include <algorithm>
6 #include <iomanip>
7 using namespace std;
8
9 class CricketPlayer{
10     protected:
11         virtual void analyzePerformance(int runs, int balls)=0;
12 };
13
14 class TestPlayer:public CricketPlayer{
15     public:
16         void analyzePerformance(int runs, int balls){
17             cout<<fixed<<setprecision(2)<<static_cast<double>(runs/2.0);
18         }
19 };
20
21 class ODIPlayer:public CricketPlayer{
22     public:
23         void analyzePerformance(int runs, int balls){
24             cout<<fixed<<setprecision(2)<<((double)runs/(double)balls)*100;
25         }
26 };
27
28 class T20Player:public CricketPlayer{
29     public:
30         void analyzePerformance(int runs, int balls){
31             cout<<fixed<<setprecision(2)<<static_cast<double>(((double)runs/(double)balls)*120.0);
32         }
33 };
34
35 int main() {
36     /* Enter your code here. Read input from STDIN. Print output to STDOUT */
37     int runs, balls;
38     string type;
39     cin>>runs>>balls>>type;
40     if(runs>0){
41         if(balls>0){
42             if(type=="test"){
43                 TestPlayer test;
44                 test.analyzePerformance(runs, balls);
45             }else if(type=="odi"){
46                 ODIPlayer odi;
47                 odi.analyzePerformance(runs, balls);
48             }else if(type=="t20"){
49                 T20Player t20;
50                 t20.analyzePerformance(runs, balls);
51             }
52         }
53     }
54     return 0;
55 }
```