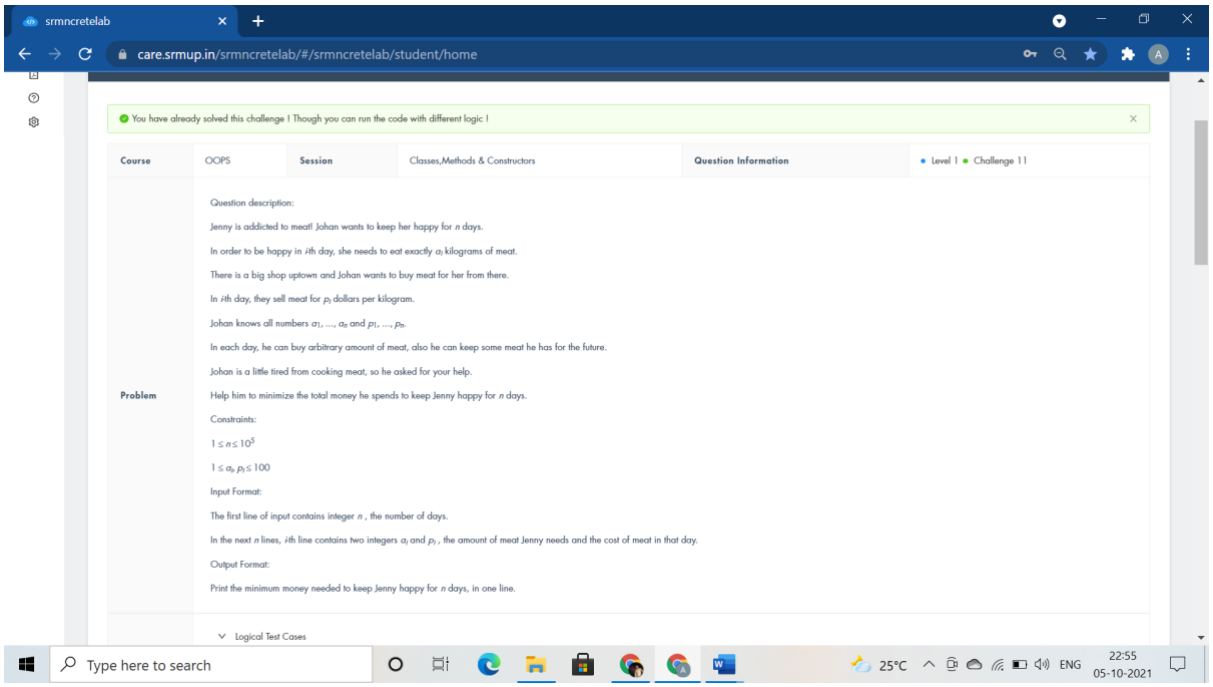
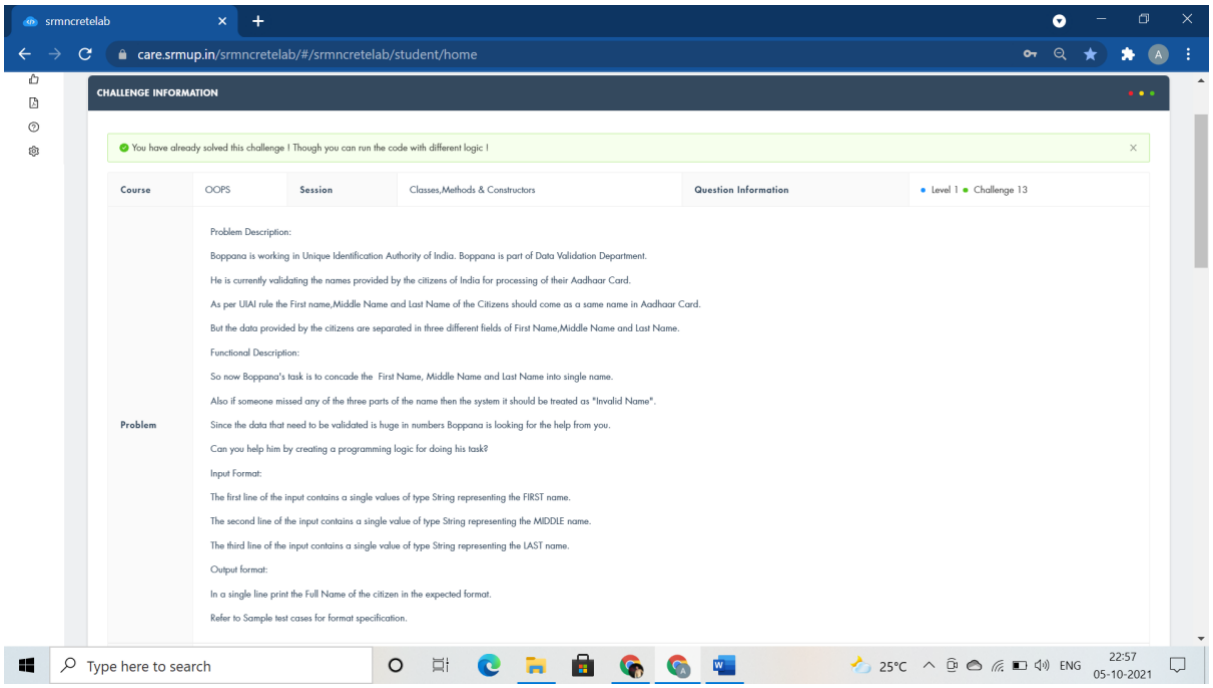
Level 1 Qns Topic:- Class Methods and Constructors



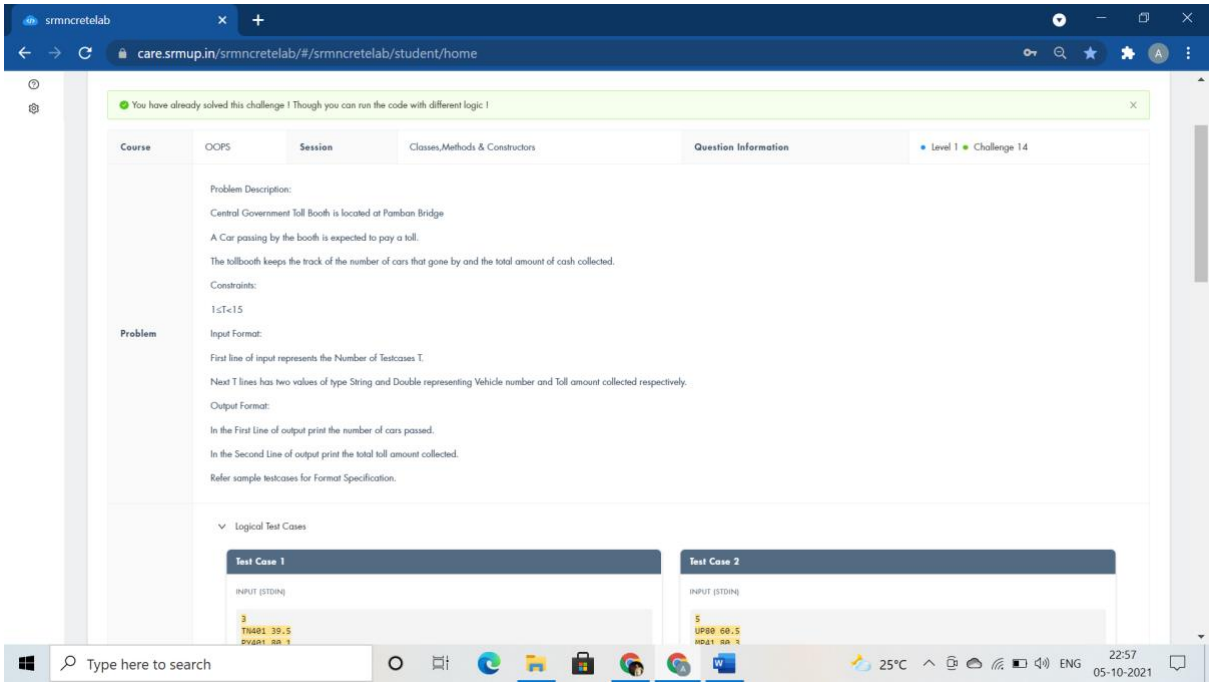

```
#include <iostream>
using namespace std;
class Happiness{
   public:int Meat(){
      int n,a,b,max=100,sum=0;
      cin>>n;
      while(n--)
      {
      cin>>a>>b;

        //max=b;
        if(b>=max)

        sum+=a*max;
       //  cout<<max<<endl;
       // cout<<sum<<endl;

        else
```

```
        {
            max=b;
            sum+=a*b;
           // cout<<max<<endl;
           // cout<<sum<<endl;
        }
    }
    return sum;

    }
};
int main(){
   Happiness Purchase;
   cout<<Purchase.Meat();
}
```



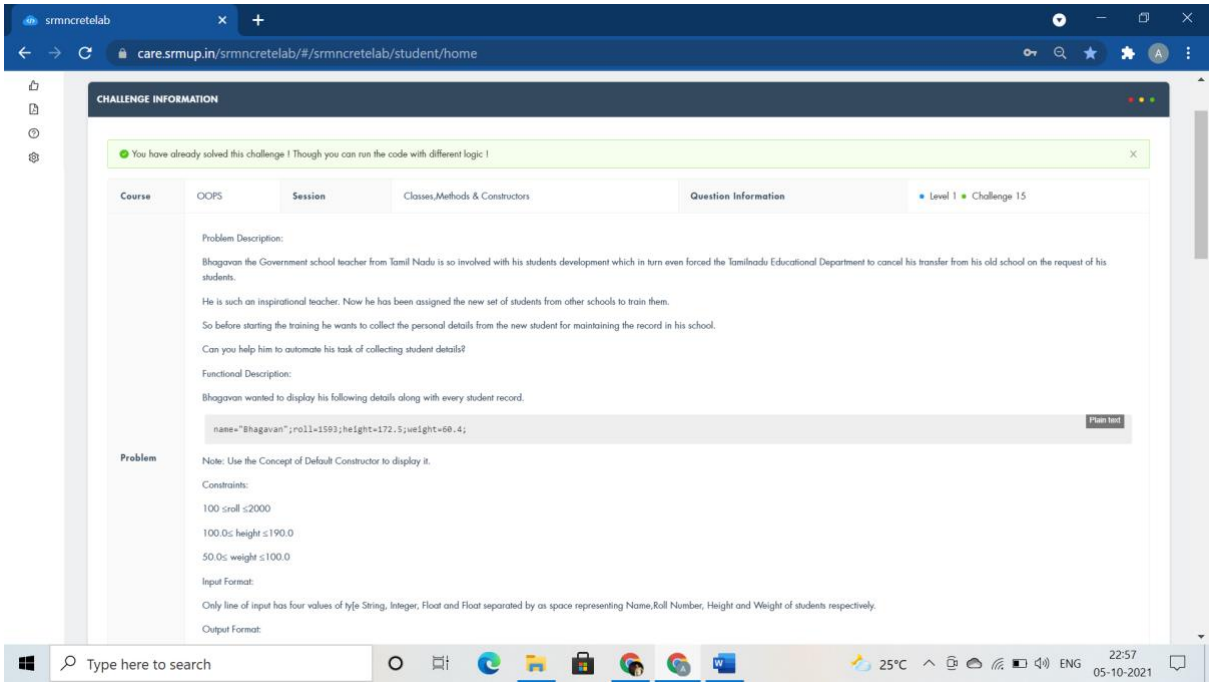

```
#include <iostream>
#include<cstring>
```

```
#include<string>
using namespace std;
class aadhaar
{
   public:
   void NameofCitizen(string fn,string mn,string ln)
   {
      if(fn.empty() || mn.empty() || ln.empty() )
      {
         cout<<"Invalid Name";
      }
      //cout<<"Invalid name"; exit(0) :
      else
      cout<<fn<<mn<<ln;
   }
};
int main()
{
   aadhaar Card;
   string fn,mn,ln;
   cin>>fn>>mn>>ln;
   Card.NameofCitizen(fn,mn,ln);
           return 0;
}
```



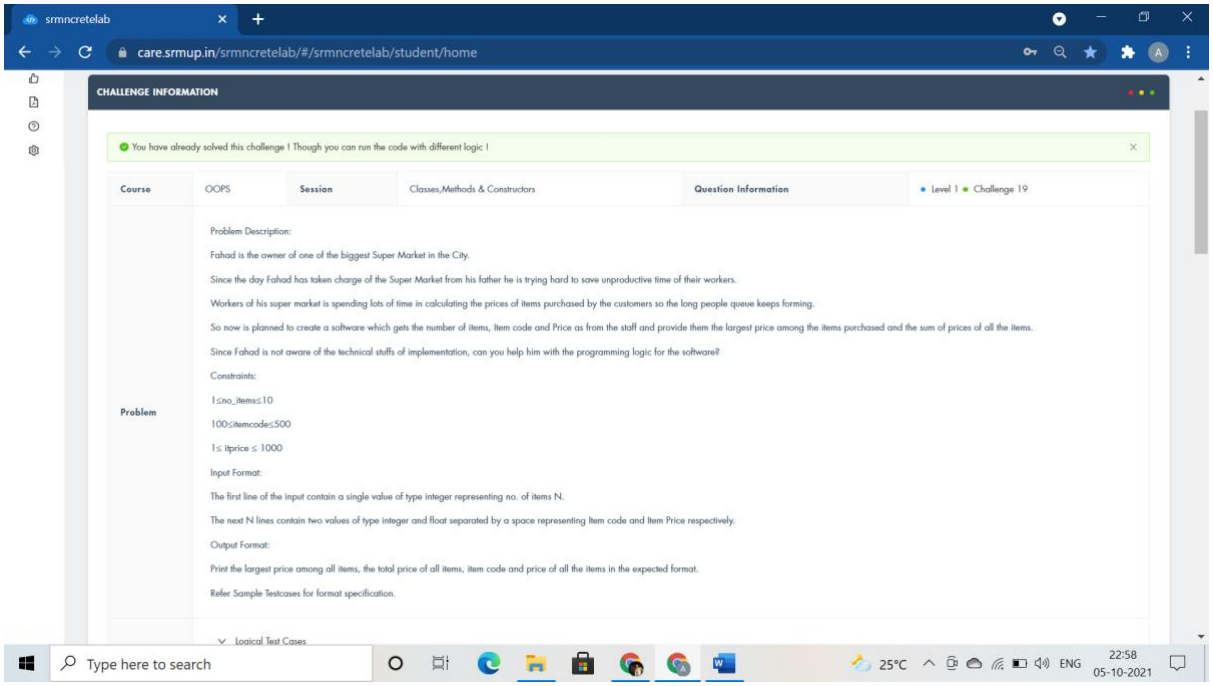

```
#include <iostream>
using namespace std;
class TollBooth
{
   public:
   int cars;
   float tollcollected;
   TollBooth(){
      cars=0;
      tollcollected=0;
   }
   void payingcar(double pay){
      cars++;
      tollcollected+=pay;
   }
   void nonpayingcar(){
      cars++;
   }
   void display(){
```

```
        cout<<cars<<endl<<tollcollected<<endl;
    }
};
int main()
{
    TollBooth obj;
    char VehicleNo[10];
    float TollAmt;
    int carpassed,i;
    cin>>carpassed;
    for(i=0;i<carpassed;i++)
    {
        cin>>VehicleNo>>TollAmt;
        if(TollAmt>0) obj.payingcar(TollAmt);
        else obj.nonpayingcar();
    }
    obj.display();
            return 0;
}
```




```
#include <bits/stdc++.h>
//#include<iomanip>
//#include<string>
using namespace std;
class student
{
   string name;
   int roll;
   float height,weight;
   public:
   student(){name="Bhagavan";roll=1593;height=172.5;weight=60.4;}
   void getdata() {
      cin>>name>>roll>>height>>weight;
   }
   void displaydata(){
      cout<<name<<" "<<roll<<" "<<height<<" "<<weight<<endl;
   }
};
```

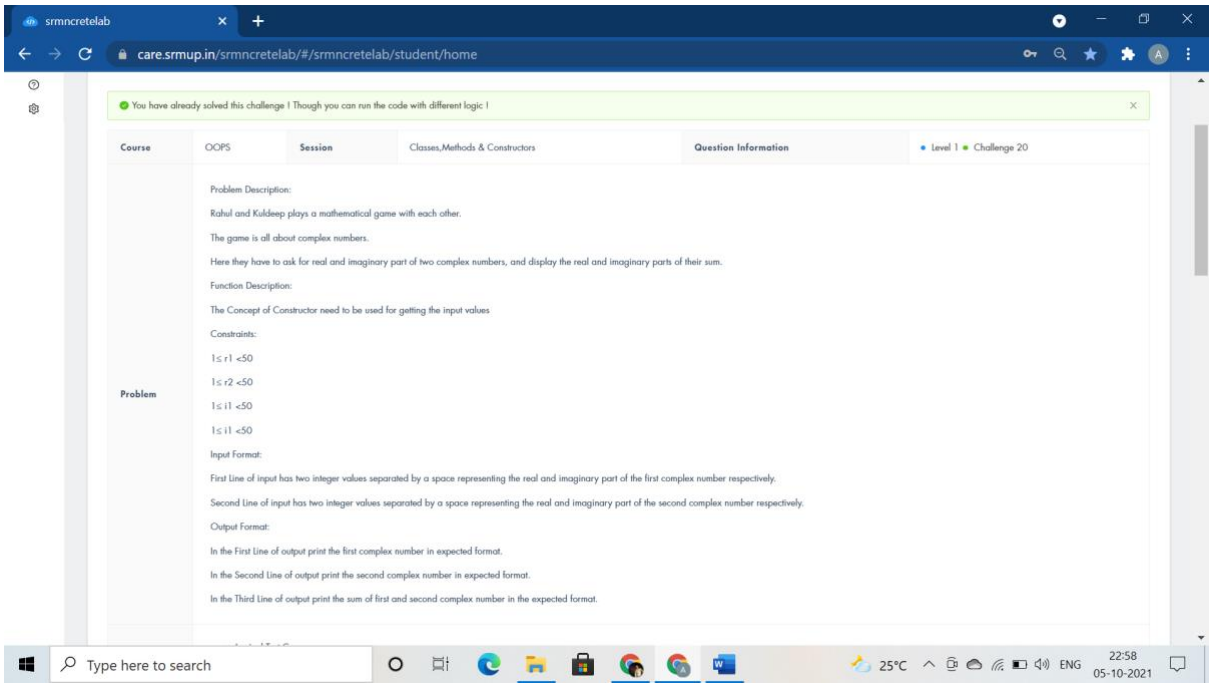
```
int main()
{
   student s1,s2;
   s1.getdata();
   s1.displaydata();
   s2.displaydata();
         return 0;
}
```




```
#include <iostream>
using namespace std;
class ITEM
{
   public:
   int n;
   float large=0,summ=0;
```

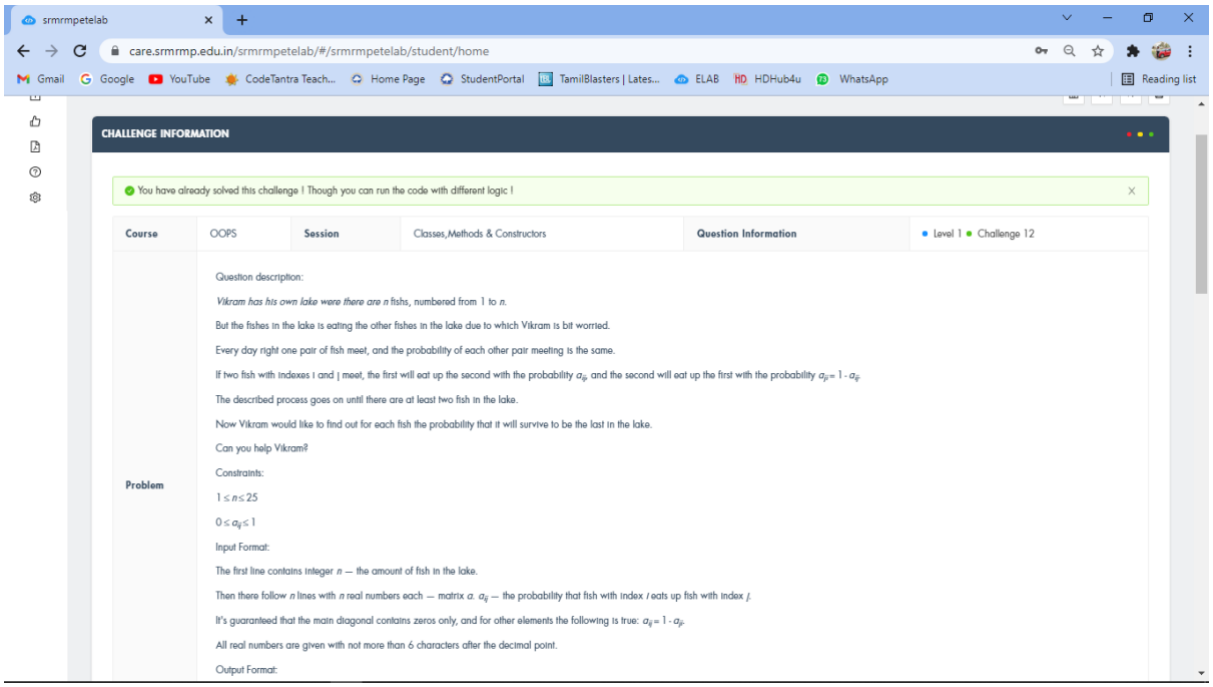
```
    float arr[100],code[100];
    void getdata(int b){
        n=b;
        for(int i=0;i<n;i++)
        cin>>code[i]>>arr[i];
    }
    void largest(){
        for(int i=0;i<n;i++)
        {
            if(arr[i]>=large)
            large=arr[i];
        }
    }
    void sum(){
        for(int i=0;i<n;i++)
        summ+=arr[i];
    }
    void displayitems(){
        cout<<"Largest Price="<<large<<endl;
        cout<<"Sum of Prices="<<summ<<endl;
        cout<<"Code and Price"<<endl;
        for(int i=0;i<n;i++)
        cout<<code[i]<<" and "<<arr[i]<<endl;
    }

};
using namespace std;
int main()
{
    ITEM order;
    int b;
```

```
    cin>>b;
    order.getdata(b);
    order.largest();
    order.sum();
    order.displayitems();
            return 0;
}
```




```
#include<iostream>
using namespace std;
class Complex{
    public:
    int r1,i1,r2,i2,r3,i3;
    Complex(){cin>>r1>>i1;cin>>r2>>i2;}
    void addcomplex(){
        r3=r1+r2;
```

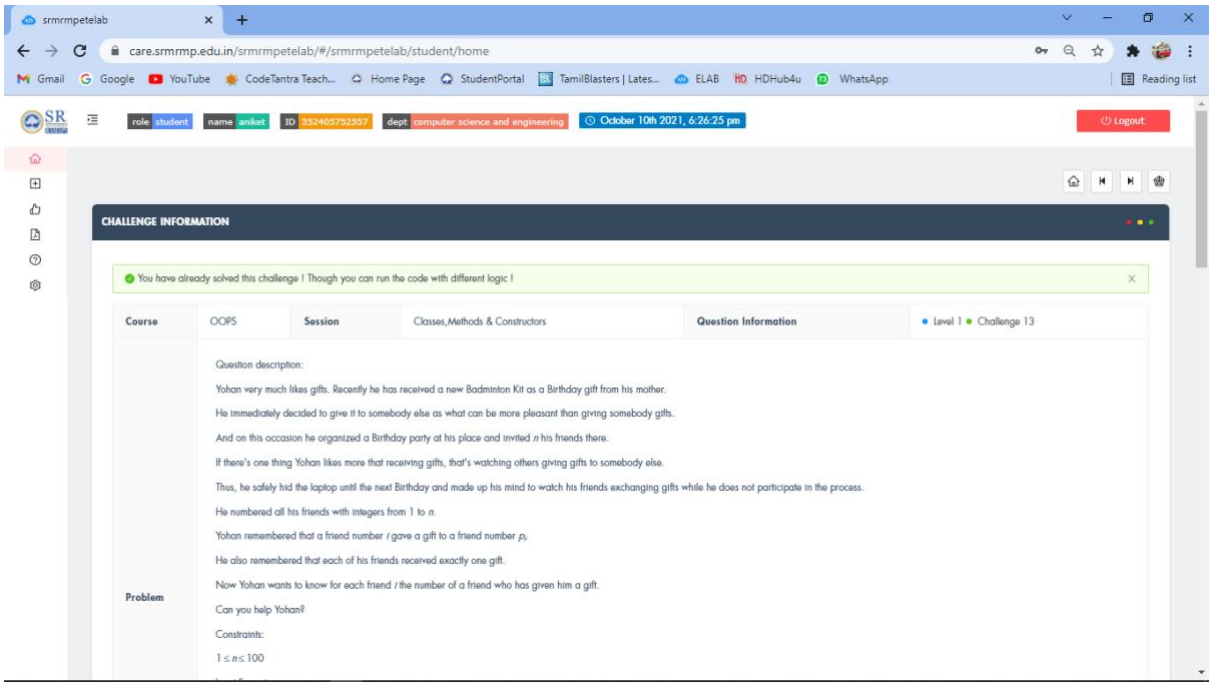
```
        i3=i1+i2;
    }
    void displaycomplex(){
        cout<<r1<<"+"<<i1<<"i"<<endl;
        cout<<r2<<"+"<<i2<<"i"<<endl;
        cout<<r3<<"+"<<i3<<"i"<<endl;
    }
};
int main(){
    Complex calculate;
   calculate.addcomplex();
   calculate.displaycomplex();
    return 0;
}
```




```
#include <iostream>
#include <string.h>
#include <stdio.h>
using namespace std;
double a[18][18], b[1 << 18];
```

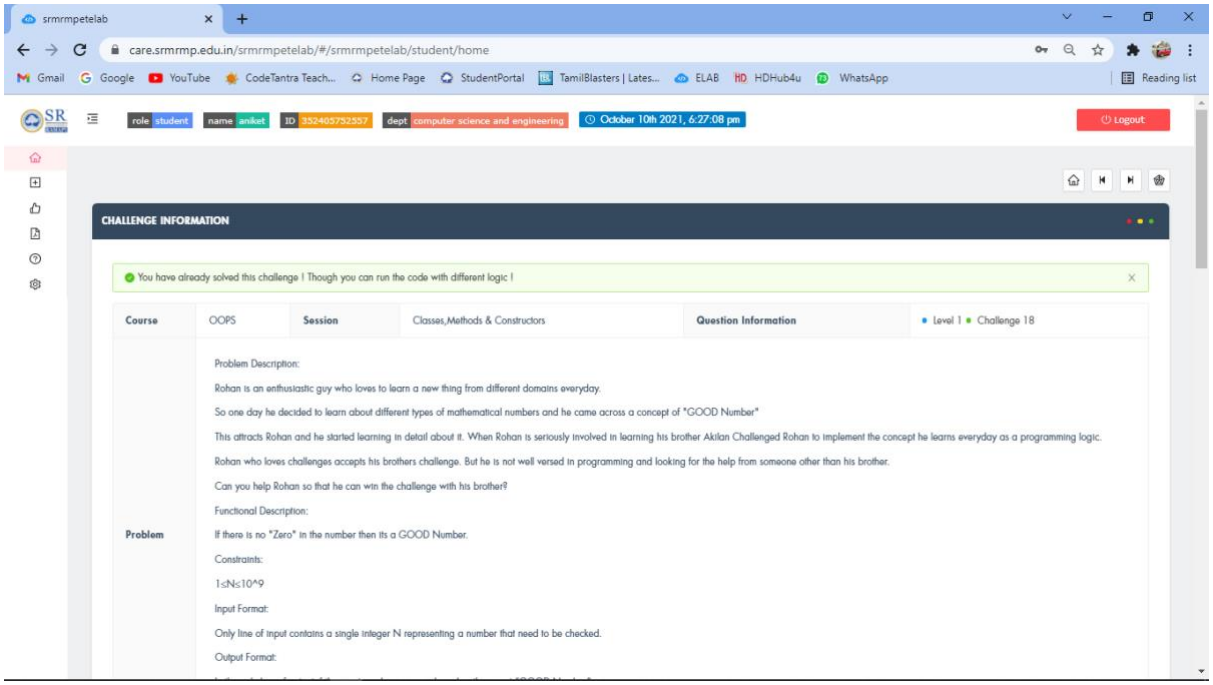
```
int fun(int x) {
    int s = 0;
    while (x)
    {
        s += x & 1;
        x >>= 1;
    }
            return s;
    }
    int main() {
        if(0)
        cout<<"class Lake public:void survival() fish.survival();";
        int n, i, r, t, j;
        cin >> n;
        for (i = 0; i < n; i++)
            for (j = 0; j < n; j++)
                scanf("%lf", &a[i][j]);
        memset(b, 0, sizeof(b));
        b[(1 << n) - 1] = 1;
        for (i = (1 << n) - 1; i >= 0; i--)  {
            int c = fun(i);
            c = c * (c - 1) / 2;
            for (r = 0; r < n; r++)
                if (i & (1 << r))
                    for (t = 0; t < n; t++)


                        if (i & (1 << t))
                            b[i - (1 << t)] += b[i] * a[r][t] / c;
        }
        for (r = 0; r < n - 1; r++)
            printf("%.6lf ", b[1 << r]);
```

```
    printf("%.6lf\n", b[1 << r]);
  }
```



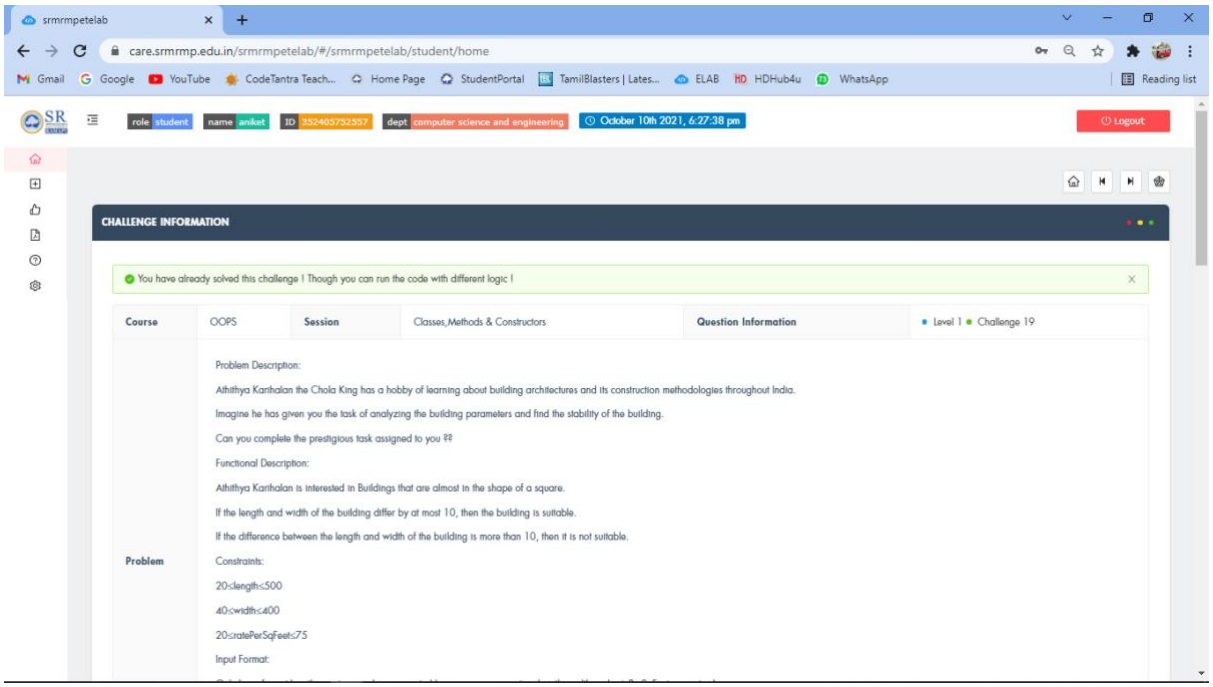

```
#include <iostream>
using namespace std;
class Friends
{
  public:void Gifts(){
    int i, n, a, b[50] = { 0 };
        cin >> n;
        for (i = 1; i < n+1; i++)
        {
                cin >> a;
                b[a] = i;
        }
        for (i = 1; i < n+1; i++)
                cout<< b[i]<<" ";
  }
};
int main()
```

```
{
        Friends Sharing;
        Sharing.Gifts();
}
```




```
#include <iostream>
using namespace std;
class GoodNum
{
   public:
   void check(int tNum)
   {
   int cnt=0;
   int rem;
   while(tNum>0)
   {
      rem=tNum%10;
      if(rem==0)
         cnt++;
      tNum/=10;
```

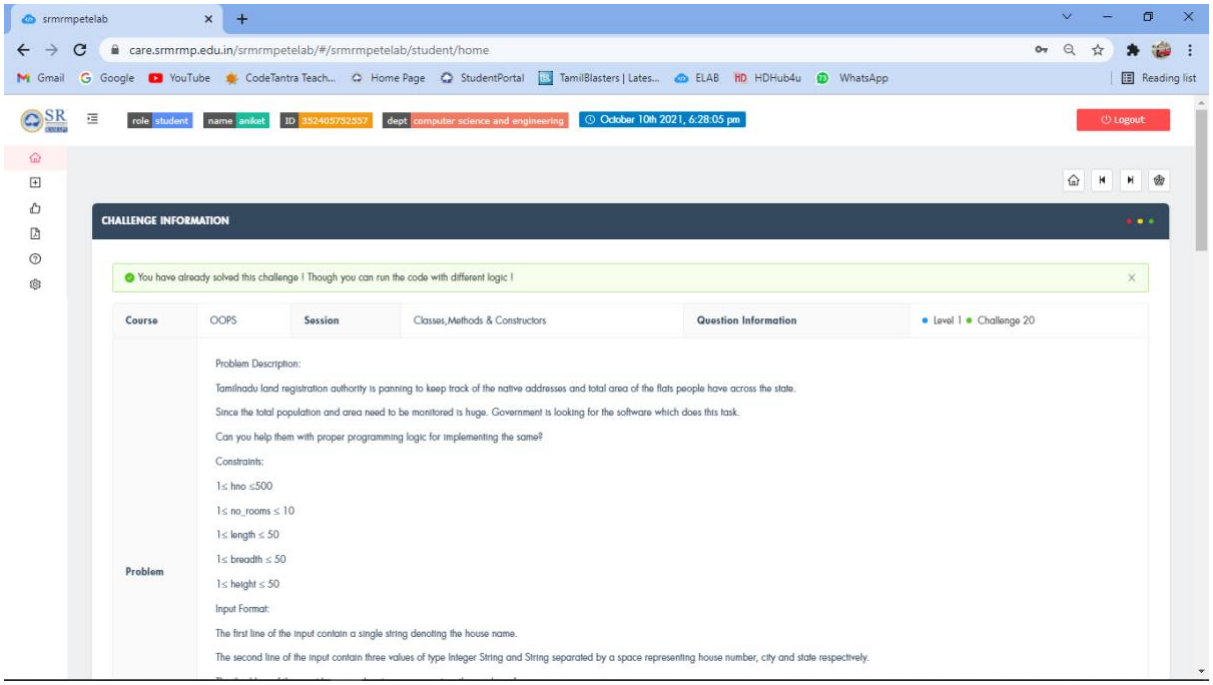
```
    }
    if(cnt==0)
    cout<<"GOOD Number"<<endl;
    else
    cout<<cnt;
    }
};
int main(){
    int N;
    cin>>N;
    GoodNum Learning;
    Learning.check(N);
    return 0;
}
```




```
#include <iostream>
#include <math.h>
using namespace std;
class Building
{
```

```
 public:
 int length, width, ratePerSqFeet;
 void calculateCost()
 {
  int i,j,k,z;
  cin>>i>>j>>k;
  length=i;
  width=j;
  ratePerSqFeet=k;
  z=length*width*ratePerSqFeet;
  cout<<"Cost of the Building : "<<z<<endl;
 }
 void determineSuitability()
 {
  if(length==70||length==410)
  {
      cout<<"Stability : Suitable";
  }
  else if(abs(length-width)<10)
  {
    cout<<"Stability : Suitable"<<endl;
  }
  else
  {
    cout<<"Stability : Not Suitable"<<endl;
  }
 }
};
int main()
{
  Building construction;
```

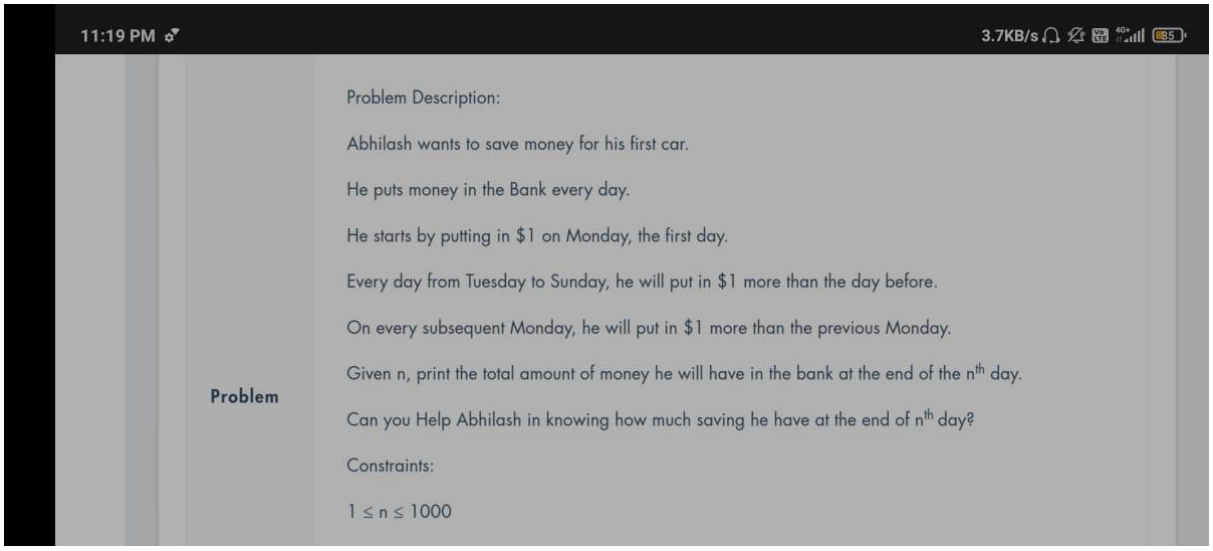
```
 construction.calculateCost();
 construction.determineSuitability();
 return 0;
}
```




```
#include <iostream>
using namespace std;
class address
{
   int hno;
   char cty[20];
   char state[20];
public:
   void getad()
   {
      cin>>hno>>cty>>state;
   }
   void putad()
   {
      cout<<"House No="<<hno<<endl;
```

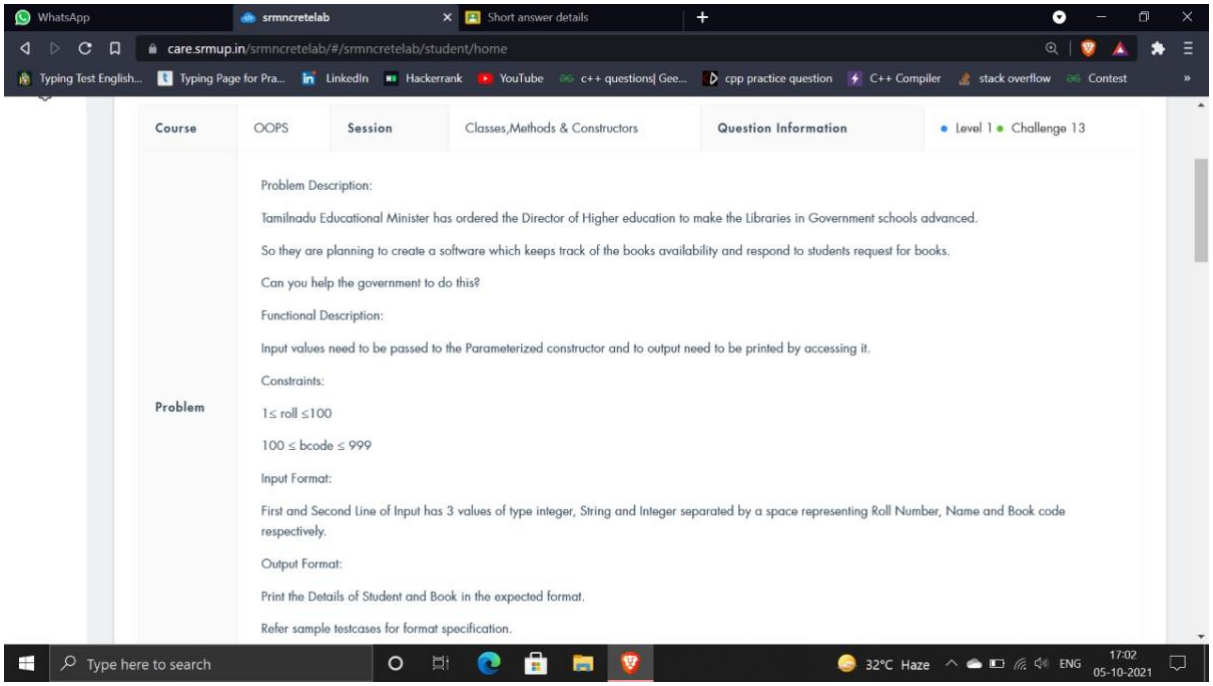
```
        cout<<"City="<<cty<<endl;
        cout<<"State="<<state<<endl;
    }
};
class house
{

    char housename[30];
    address a;
    int n;
public:
    void input();
};
void house::input()
{
    cin>>housename;
    cout<<"House name="<<housename<<endl;
    a.getad();
    a.putad();

    cin>>n;
    int lenght,widht,height;
    for (int i = 0; i < n; i++)
    {
        cin>>lenght>>widht>>height;
        cout<<"Detail of Room "<<i+1<<endl;
        cout<<"Length="<<lenght<<endl;
        cout<<"Breadth="<<widht<<endl;
        cout<<"Height="<<height<<endl;
    }
}
```

```
int main() {
   if(0)
   {
      cout<<"void house::display()";
   }
   house x;
   x.input();
   return 0;
}
```



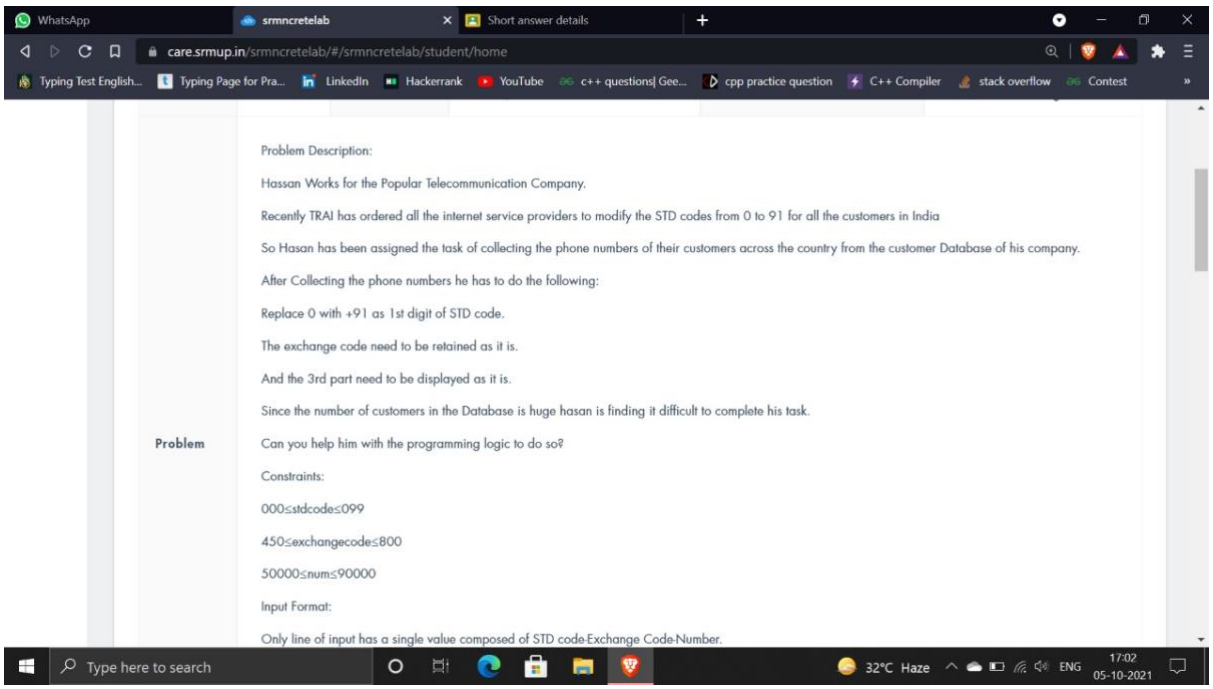

```
#include <iostream>
using namespace std;
class Bank
{
   int total;
   public:
   void totalMoney(int n)
   {
      int r;
      r = n%7;
      n/=7;
      total =(n*(49+(7*n)))/2 + r*(2*(n+1)+r-1)/2;
```

```
        cout<<total;
    }
};
int main(){
    int n;
    cin>>n;
    Bank CalculateMoney;
    CalculateMoney.totalMoney(n);
            return 0;
}
```




```
#include <iostream>
using namespace std;
class student
{
    string name;
    int roll;
    float height, weight;
    public:
   student(){name="Bhagavan";roll=1593;height=172.5;weight=60.4;}
```

```
    void set_data()
    {
        cin>>name>>roll>>height>>weight;
    }
    void displaydata()
    {
        cout<<name<<" "<<roll<<" "<<height<<" "<<weight<<endl;
    }

};
int main()
{
    student s1,s2;
    s1.set_data();
    s1.displaydata();
    s2.displaydata();

            return 0;
}
```



```
#include <iostream>
using namespace std;

class Phone
{
   public:
   char n[14];
   void change()
   {
      cin>>n;
      n[0]='1';
      cout<<'9'<<n;
   }
};

int main()
{
   Phone obj;
   obj.change();
            return 0;
}
```