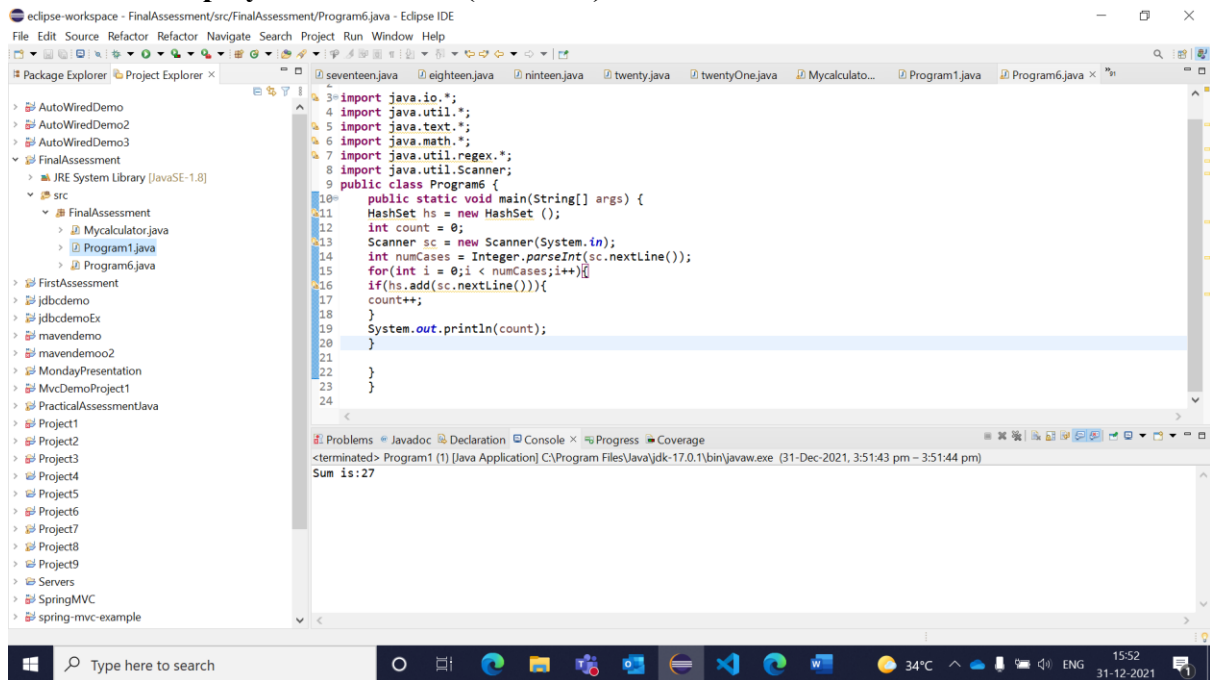


Name: Manjula B
Employee Id: 5770

Final Practical Assessment Java-Answers

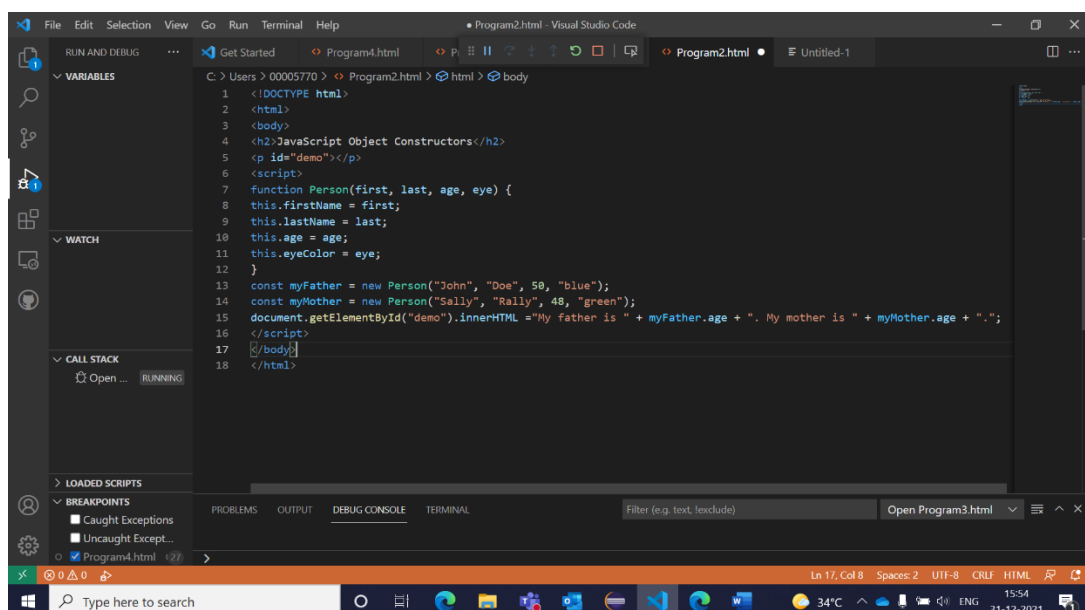
- 1) Write a program to extract the values 5,6,7,9 from the array [2,3,4,5,6,7,9,10,1,6] and display it's sum i.e 27 (5+6+7+9).



```
3=import java.io.*;
4 import java.util.*;
5 import java.text.*;
6 import java.math.*;
7 import java.util.regex.*;
8 import java.util.Scanner;
9 public class Program6 {
10     public static void main(String[] args) {
11         HashSet hs = new HashSet ();
12         int count = 0;
13         Scanner sc = new Scanner(System.in);
14         int numCases = Integer.parseInt(sc.nextLine());
15         for(int i = 0; i < numCases; i++){
16             if(hs.add(sc.nextLine())){
17                 count++;
18             }
19             System.out.println(count);
20         }
21     }
22 }
23 }
24 }
```

Sum is:27

- 2) Make an Object with the help of the JavaScript Constructor Function (Object Constructors)



```
1 <!DOCTYPE html>
2 <html>
3 <body>
4 <h2>JavaScript Object Constructors</h2>
5 <p id="demo"></p>
6 <script>
7 function Person(first, last, age, eye) {
8     this.firstName = first;
9     this.lastName = last;
10    this.age = age;
11    this.eyeColor = eye;
12 }
13 const myFather = new Person("John", "Doe", 50, "blue");
14 const myMother = new Person("Sally", "Rally", 48, "green");
15 document.getElementById("demo").innerHTML = "My father is " + myFather.age + ". My mother is " + myMother.age + ".";
16 </script>
17 </body>
18 </html>
```



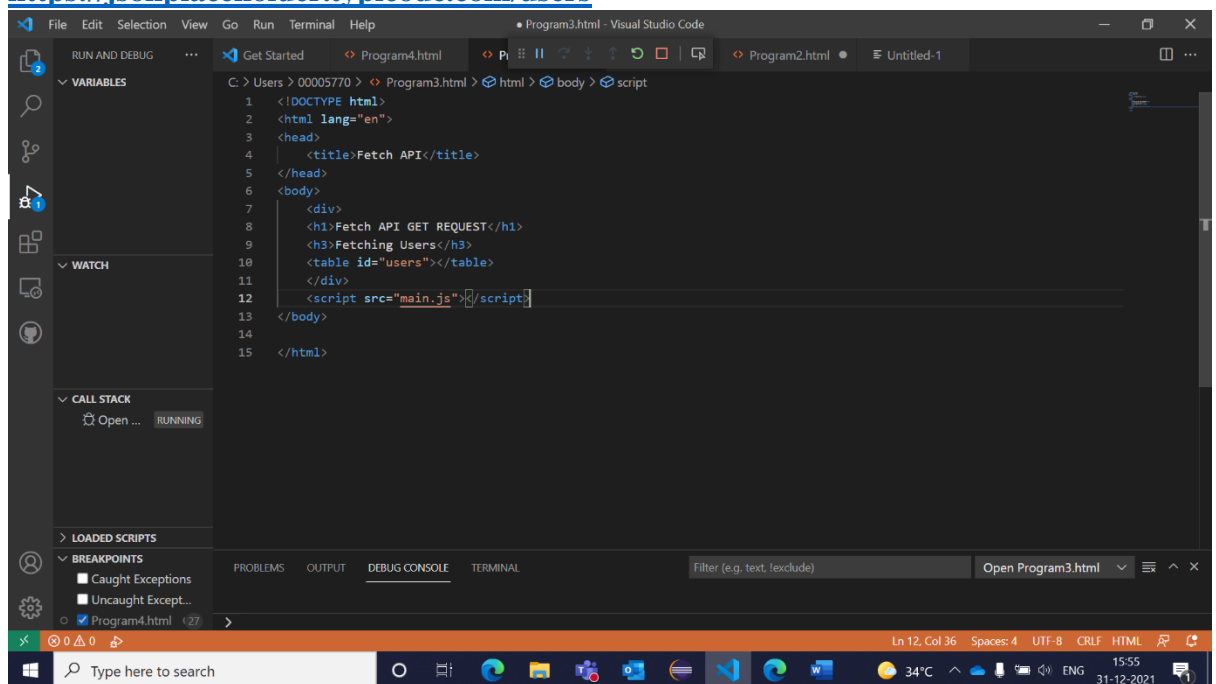
JavaScript Object Constructors

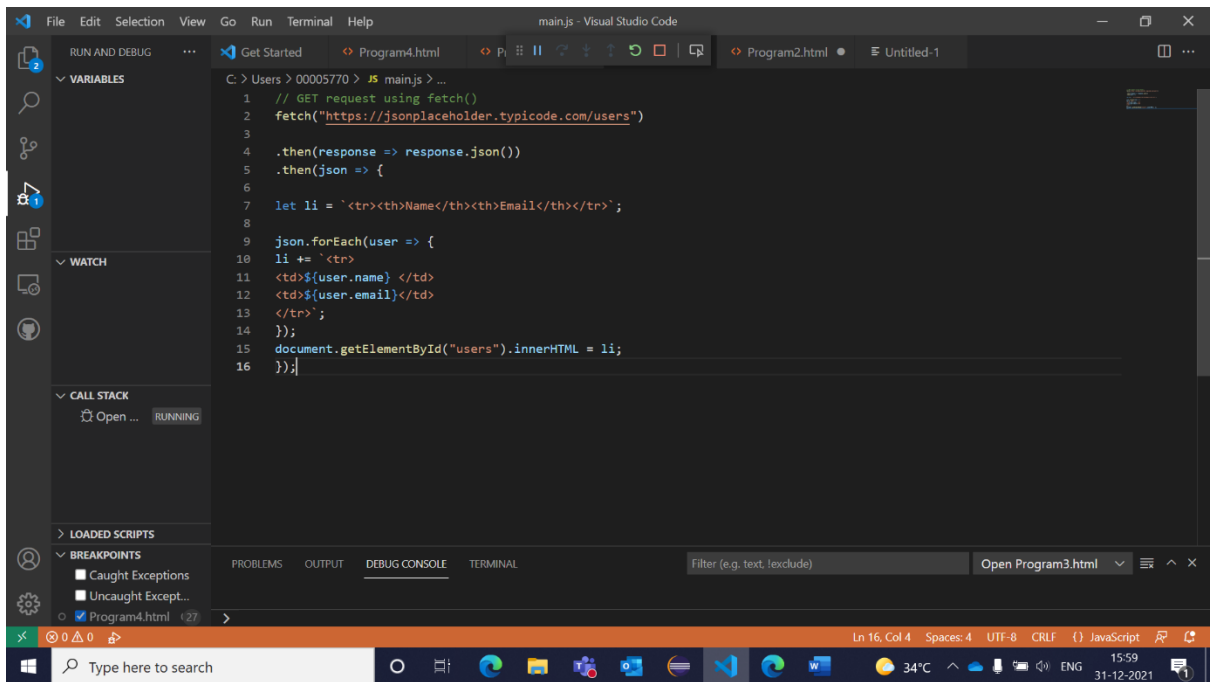
My father is 50. My mother is 48.



- 3) Write a program that fetches the users from the given API and displays and then console log their Email addresses. API:

<https://jsonplaceholder.typicode.com/users>





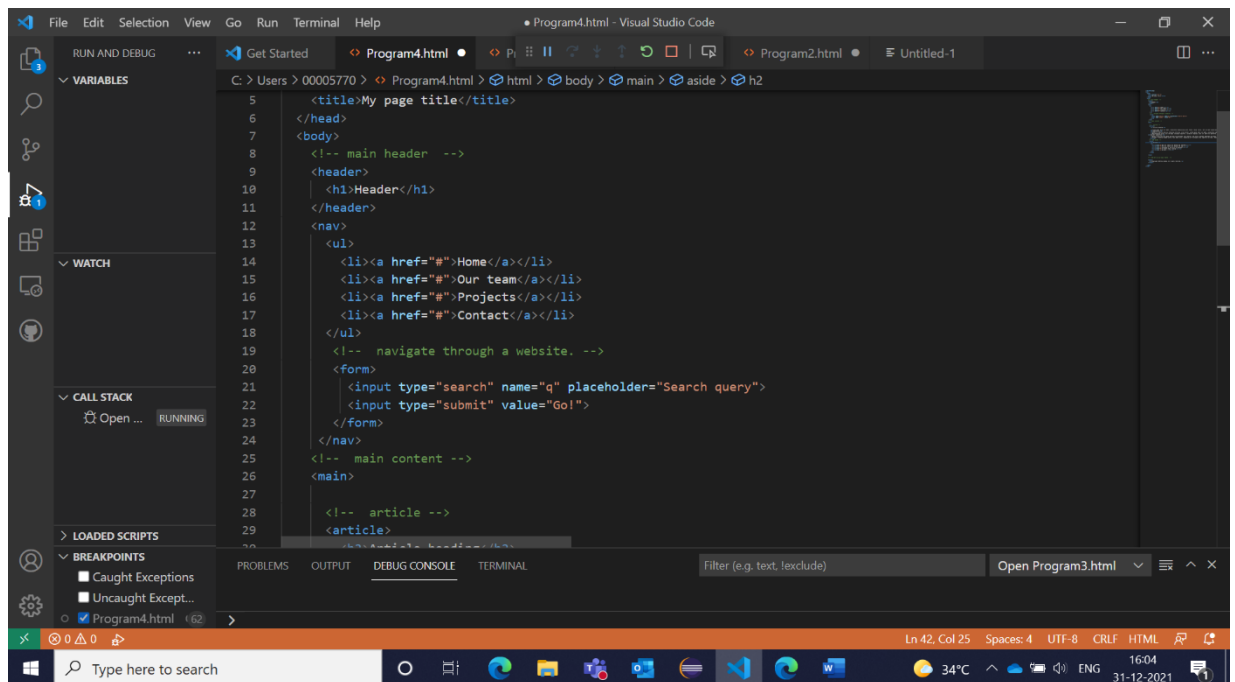
Fetch API GET REQUEST

Fetching Users

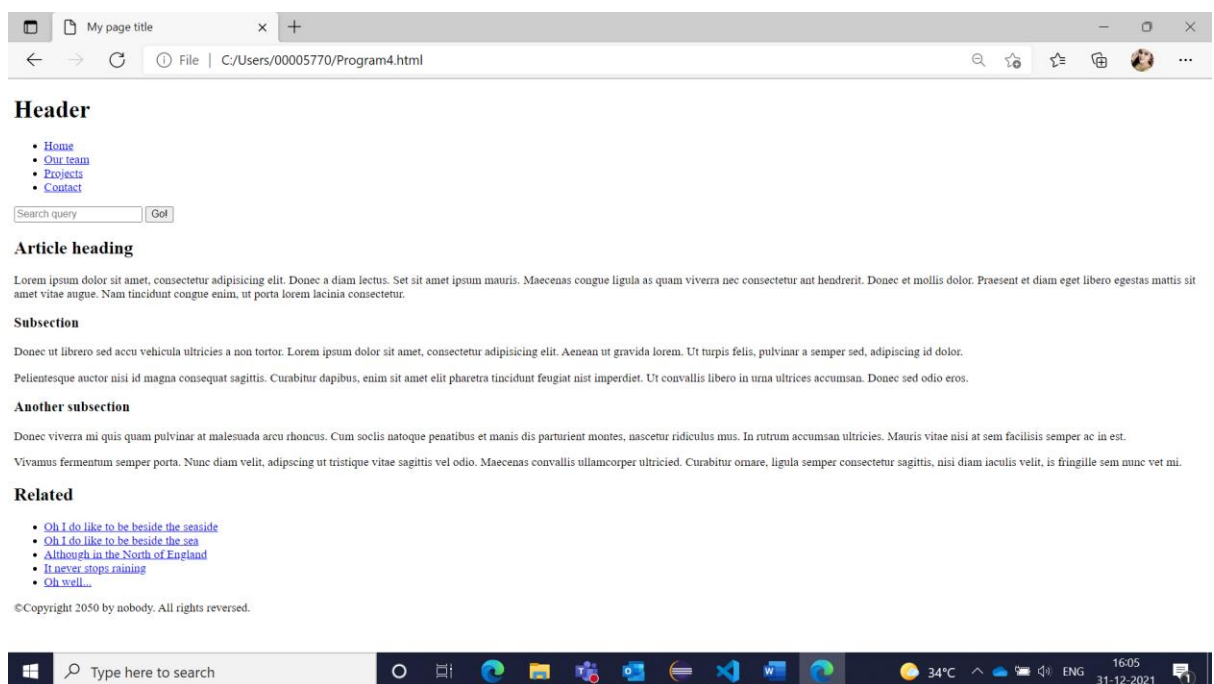
Name	Email
Leanne Graham	Sincere@april.biz
Ervin Howell	Shanna@melissa.tv
Clementine Bauch	Nathan@yesenia.net
Patricia Lebsack	Julianne.OConner@kory.org
Chelsey Dietrich	Lucio_Hettinger@annie.ca
Mrs. Dennis Schulist	Karley_Dach@jasper.info
Kurtis Weissnat	Telly.Hoeger@billy.biz
Nicholas Runolfsdottir V	Sherwood@rosamond.me
Glenna Reichert	Chaim_McDermott@dana.io
Clementina DuBuque	Rey.Padberg@karina.biz



4) Make an HTML page by at least using 4 HTML Semantic Elements. Feel free to use dummy text as content



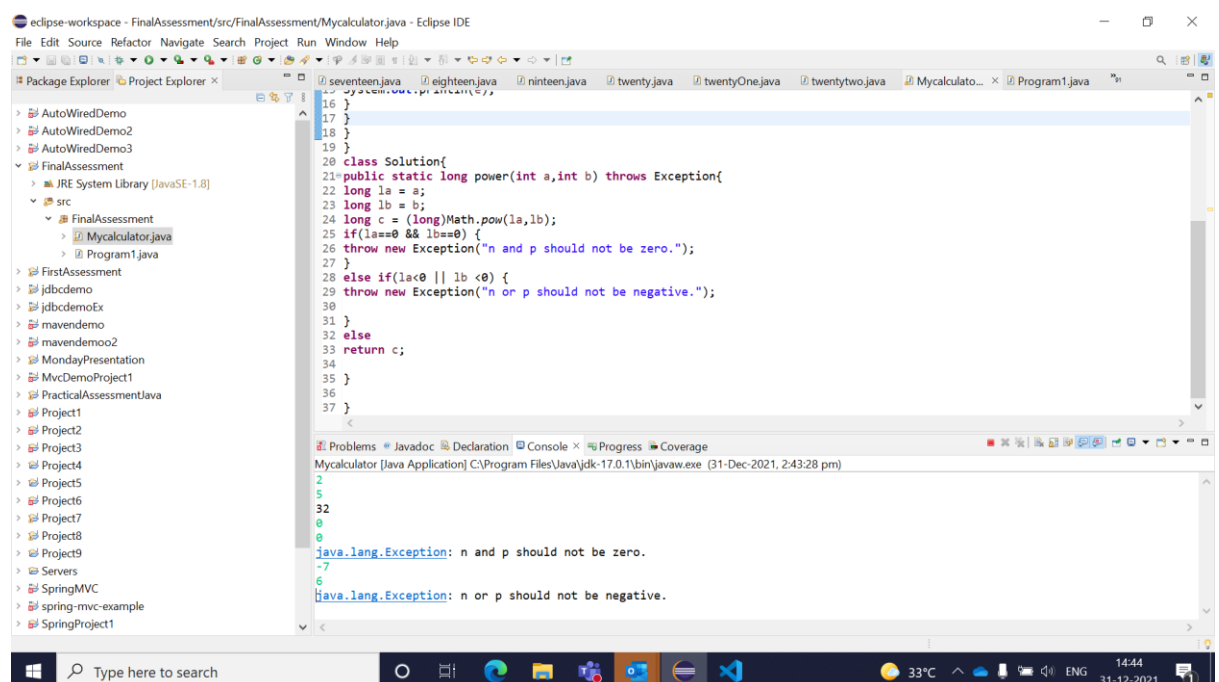
```
5 <title>My page title</title>
6 </head>
7 <body>
8   <!-- main header -->
9   <header>
10     <h1>Header</h1>
11   </header>
12   <nav>
13     <ul>
14       <li><a href="#">Home</a></li>
15       <li><a href="#">Our team</a></li>
16       <li><a href="#">Projects</a></li>
17       <li><a href="#">Contact</a></li>
18     </ul>
19     <!-- navigate through a website. -->
20     <form>
21       <input type="search" name="q" placeholder="Search query">
22       <input type="submit" value="Go!">
23     </form>
24   </nav>
25   <!-- main content -->
26   <main>
27     <!-- article -->
28     <article>
29       <h2>Article heading</h2>
30       <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec a diam lectus. Set sit amet ipsum mauris. Maecenas congue ligula as quam viverra nec consectetur ant hendrerit. Donec et mollis dolor. Praesent et diam eget libero egestas mattis sit amet vitae augue. Nam tincidunt congue enim, ut porta lorem lacinia consectetur.
```



- 5) You are required to compute the power of a number by implementing a calculator. Create a class MyCalculator which consists of a single method long power(int, int). This method takes two integers, n and p, as parameters and finds n^p . If either n or p is negative, then the method must throw an exception which says "n or p should not be negative". Also, if both n and p are zero, then the method must throw an exception which says "n and p should not be zero"

For example, -4 and -5 would result in `Java.lang.Exception: n or p should not be negative`. Complete the function power in class MyCalculator and return the appropriate result after the power operation or an appropriate exception as detailed above.

Input Format Each line of the input contains two integers, n and p. The locked stub code in the editor reads the input and sends the values to the method as parameters. **Constraints** **Output Format** Each line of the output contains the result n^p , if both n and p are positive. If either n or p is negative, the output contains "n and p should be non-negative". If both n and p are zero, the output contains "n and p should not be zero.". This is printed by the locked stub code in the editor



```
16 }
17 }
18 }
19 }
20 class Solution{
21     public static long power(int a,int b) throws Exception{
22         long la = a;
23         long lb = b;
24         long c = (long)Math.pow(la,lb);
25         if(la==0 && lb==0) {
26             throw new Exception("n and p should not be zero.");
27         }
28         else if(la<0 || lb <0) {
29             throw new Exception("n or p should not be negative.");
30         }
31         else
32             return c;
33     }
34 }
35 }
36 }
37 }
```

Problems Javadoc Declaration Console Progress Coverage
Mycalculator [Java Application] C:\Program Files\Java\jdk-17.0.1\bin\javaw.exe (31-Dec-2021, 2:43:28 pm)

```
2
5
32
0
0
java.lang.Exception: n and p should not be zero.
-7
6
java.lang.Exception: n or p should not be negative.
```

- 6) In computer science, a set is an abstract data type that can store certain values, without any particular order, and no repeated values. {1,2,3} is an example of a set, but {1,2,2} is not a set.

You are given n pairs of strings. Two pairs (a,b) and (c,d) are identical if $a=c$ and $b=d$. That also implies (a,b) is not same as (b,a). After taking each pair as input, you need to print number of unique pairs you currently have.

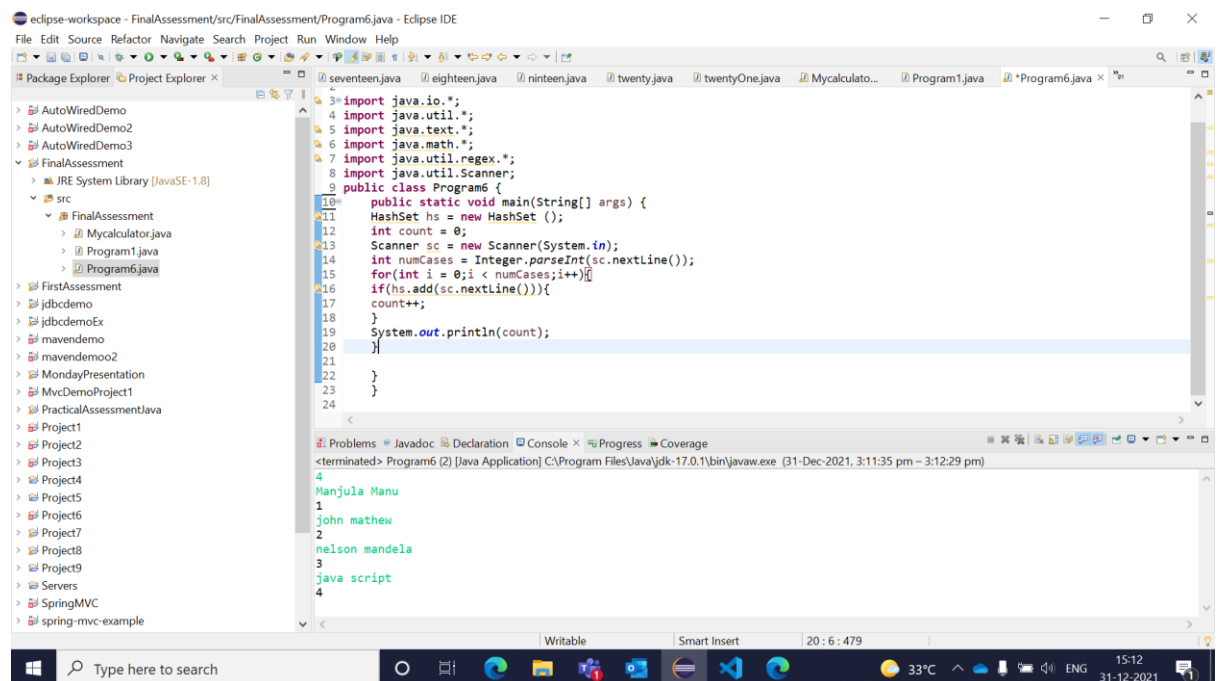
Complete the code in the editor to solve this problem.

Input Format

In the first line, there will be an integer T denoting number of pairs. Each of the next T lines will contain two strings separated by a single space.

Output Format

Print T lines. In the i th line, print number of unique pairs you have after taking i th pair as input



```
import java.io.*;
import java.util.*;
import java.text.*;
import java.math.*;
import java.util.regex.*;
import java.util.Scanner;

public class Program6 {
    public static void main(String[] args) {
        HashSet hs = new HashSet ();
        int count = 0;
        Scanner sc = new Scanner(System.in);
        int numCases = Integer.parseInt(sc.nextLine());
        for(int i = 0; i < numCases; i++){
            if(hs.add(sc.nextLine())){
                count++;
            }
            System.out.println(count);
        }
    }
}
```

Console Output:

```
<terminated> Program6 (2) [Java Application] C:\Program Files\Java\jdk-17.0.1\bin\javaw.exe (31-Dec-2021, 3:11:35 pm - 3:12:29 pm)
4
Manjula Manu
1
john mathew
2
nelson mandela
3
java script
4
```