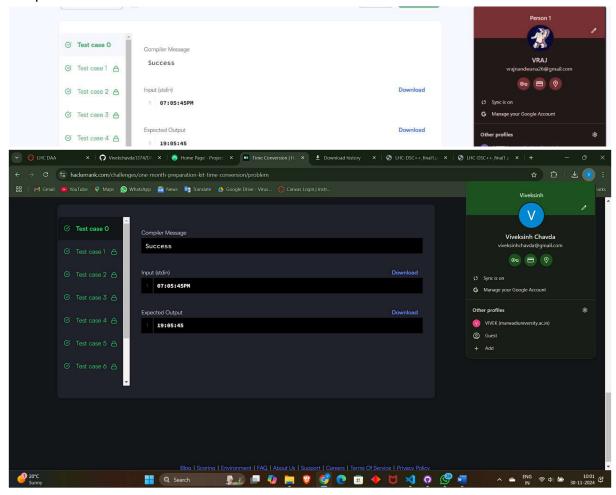
Vivek Chavda: 92200133026

Vrajkumar Nandwana: 92200133018

```
Time Conversion
Code:
import java.util.Scanner;
public class TimeConversion {
  public static void main(String[] args) {
    Scanner sc = new Scanner(System.in);
    String time = sc.nextLine().trim();
    String period = time.substring(time.length() - 2);
    String[] parts = time.substring(0, time.length() - 2).split(":");
    int hours = Integer.parseInt(parts[0]);
    String minutes = parts[1];
    String seconds = parts[2];
    if (period.equals("AM")) {
      if (hours == 12) {
        hours = 0;
     }
   }
    else {
     if (hours != 12) {
       hours += 12;
     }
   }
     System.out.printf("%02d:%s:%s%n", hours, minutes, seconds);
 }
}
```



Birthday Cake Candles Code:

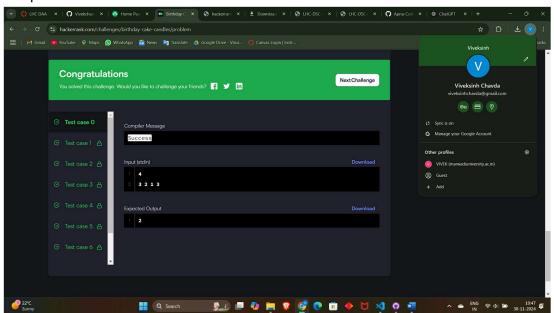
```
import java.util.*;

public class BirthdayCakeCandles {
   public static void main(String[] args) {
      Scanner scanner = new Scanner(System.in);
   int n = scanner.nextInt();
   int[] candles = new int[n];

   for (int i = 0; i < n; i++) {
      candles[i] = scanner.nextInt();
   }</pre>
```

System.out.println(birthdayCakeCandles(candles));

```
scanner.close();
 }
  public static int birthdayCakeCandles(int[] candles) {
    int tallest = 0;
    int count = 0;
    for (int i = 0; i < candles.length; i++) {
      if (candles[i] > tallest) {
        tallest = candles[i];
        count = 1;
      } else if (candles[i] == tallest) {
        count++;
      }
    }
    return count;
  }
TC = O(n)
SC = O(1)
```



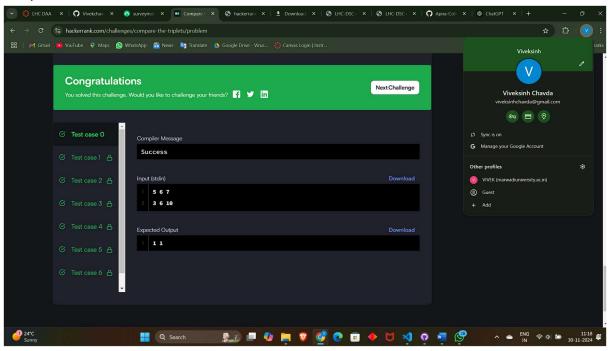


Compare the Triplets:

```
Code
import java.util.Arrays;
import java.util.Scanner;
public class CountTriplet {
  public static void main(String[] args) {
    Scanner sc = new Scanner(System.in);
    int counta = 0;
    int countb = 0;
    int[] a = new int[3];
    int[]b = new int[3];
    for (int i = 0; i < 3; i++) {
      a[i] = sc.nextInt();
    }
    for (int j=0; j < 3; j++) {
      b[j] = sc.nextInt();
    }
    for(int i = 0; i < 3; i++) {
    if(a[i] > b[i]){
      counta++;
    else if(a[i] < b[i]){
```

```
countb++;
}

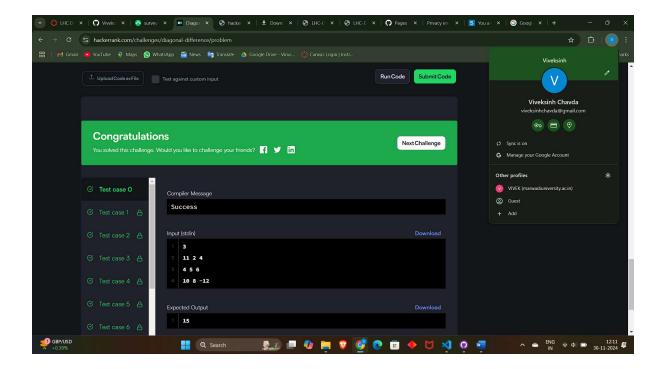
System.out.println(counta+" "+countb);
}
```

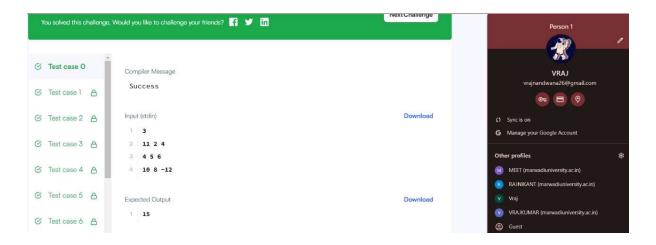




Diagonal Difference

```
Code:
import java.util.Scanner;
public class DiagonalDifference {
  public static int DiagonalSum(int[][] arr){
   int pdiagonals = 0;
   int sdiagonals = 0;
   for(int i = 0; i <arr.length;i++){</pre>
      pdiagonals += arr[i][i];
      sdiagonals += arr[i][arr.length-i-1];
   }
   return Math.abs(pdiagonals - sdiagonals);
  }
  public static void main(String[] args) {
    Scanner sc = new Scanner(System.in);
    int n = sc.nextInt();
    int[][] arr = new int[n][n];
    for (int i = 0; i < n; i++) {
      for (int j = 0; j < n; j++) {
        arr[i][j] = sc.nextInt();
     }
    System.out.println(DiagonalSum(arr));
 }
}
```





Min Max Difference

Code:

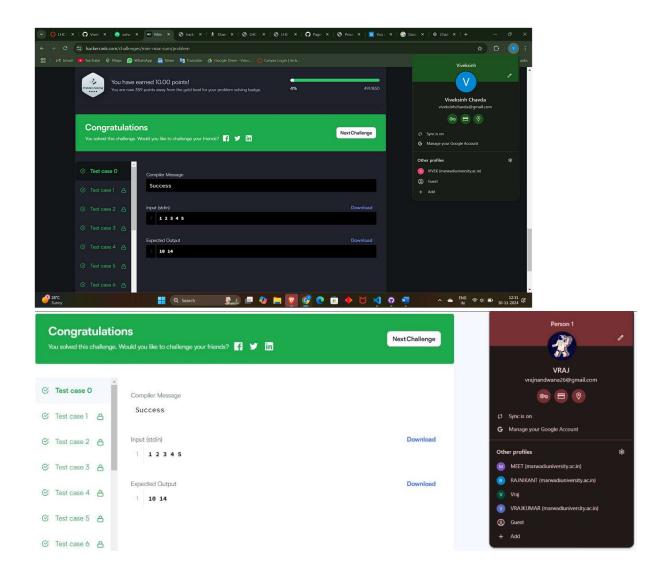
import java.util.Arrays;

import java.util.Scanner;

public class MinMaxSum {
 public static void miniMaxSum(int[] arr) {
 Arrays.sort(arr);

```
long minSum = 0;
  long maxSum = 0;
  for (int i = 0; i < 4; i++) {
    minSum += arr[i];
  }
  for (int i = 1; i < 5; i++) {
    maxSum += arr[i];
  }
  System.out.println(minSum + " " + maxSum);
}
public static void main(String[] args) {
  Scanner sc = new Scanner(System.in);
  int[] arr = new int[5];
  for (int i = 0; i < 5; i++) {
    arr[i] = sc.nextInt();
  }
  miniMaxSum(arr);
}
```

}



Plus minus

import java.util.Scanner;

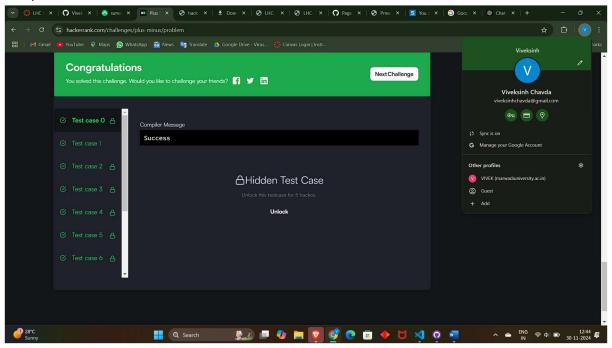
Code:

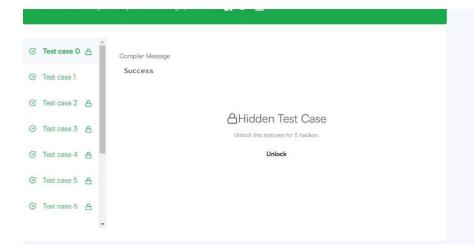
```
public class PlusMinas {
  public static void main(String[] args) {
    Scanner scanner = new Scanner(System.in);
    int n = scanner.nextInt();
    int[] arr = new int[n];

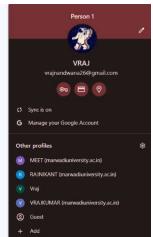
  for (int i = 0; i < n; i++) {
      arr[i] = scanner.nextInt();
    }

  int pos = 0;
  int neg = 0;</pre>
```

```
int zero = 0;
    for (int i = 0; i < arr.length; i++) {
      if (arr[i] == 0) {
       zero++;
     } else if (arr[i] > 0) {
        pos++;
     } else {
        neg++;
     }
    }
    double posDivide = (double) pos / arr.length;
    double negDivide = (double) neg / arr.length;
    double zeroDivide = (double) zero / arr.length;
    System.out.printf("%.6f%n", posDivide);
    System.out.printf("%.6f%n", negDivide);
    System.out.printf("%.6f%n", zeroDivide);
 }
}
```

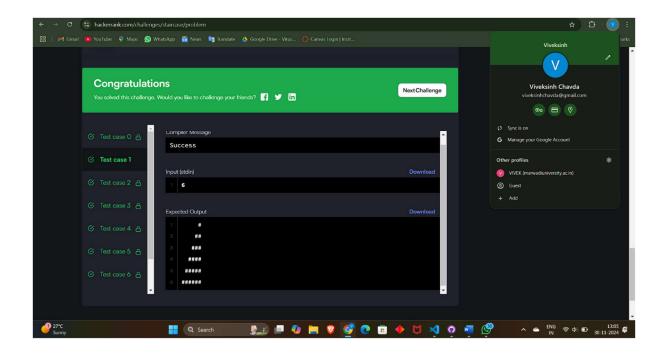


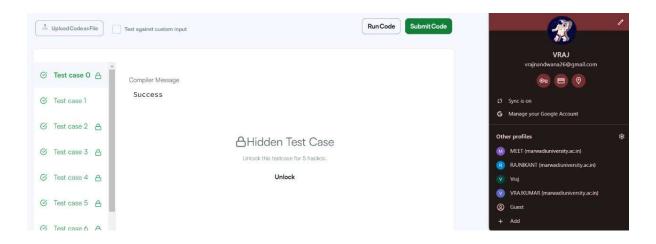




Stair Case

```
Code:
import java.util.Scanner;
public class StairCase {
  public static void main(String[] args) {
    Scanner scanner = new Scanner(System.in);
    int n = scanner.nextInt();
    for (int i = 1; i \le n; i++) {
      for (int j = 0; j < n - i; j++) {
        System.out.print(" ");
      }
      for (int j = 0; j < i; j++) {
        System.out.print("#");
      System.out.println();
    }
    scanner.close();
 }
}
```





Migratory Birds

Code:

import java.util.Scanner;

```
public class MigratoryBirds {
  public static void main(String[] args) {
    Scanner sc = new Scanner(System.in);
  int n = sc.nextInt();
  int[] count = new int[6];
```

```
for (int i = 0; i < n; i++) {
    int type = sc.nextInt();
    count[type]++;
}

int maxBirdType = 1;

for (int i = 2; i <= 5; i++) {
    if (count[i] > count[maxBirdType]) {
        maxBirdType = i;
    }
}

System.out.println(maxBirdType);
}
```

output

}

