

DAA SKILL

WEEK 9

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PRIME DATES

PROGRAM:

```
import re
month = []
def updateLeapYear(year):
    if year % 400 == 0:
        month[2] = 29
    elif year % 100 == 0:
        month[2] = 28
    elif year % 4 == 0:
        month[2] = 29
    else:
        month[2] = 28
def storeMonth():
    month[1] = 31
    month[2] = 28
    month[3] = 31
    month[4] = 30
    month[5] = 31
    month[6] = 30
```

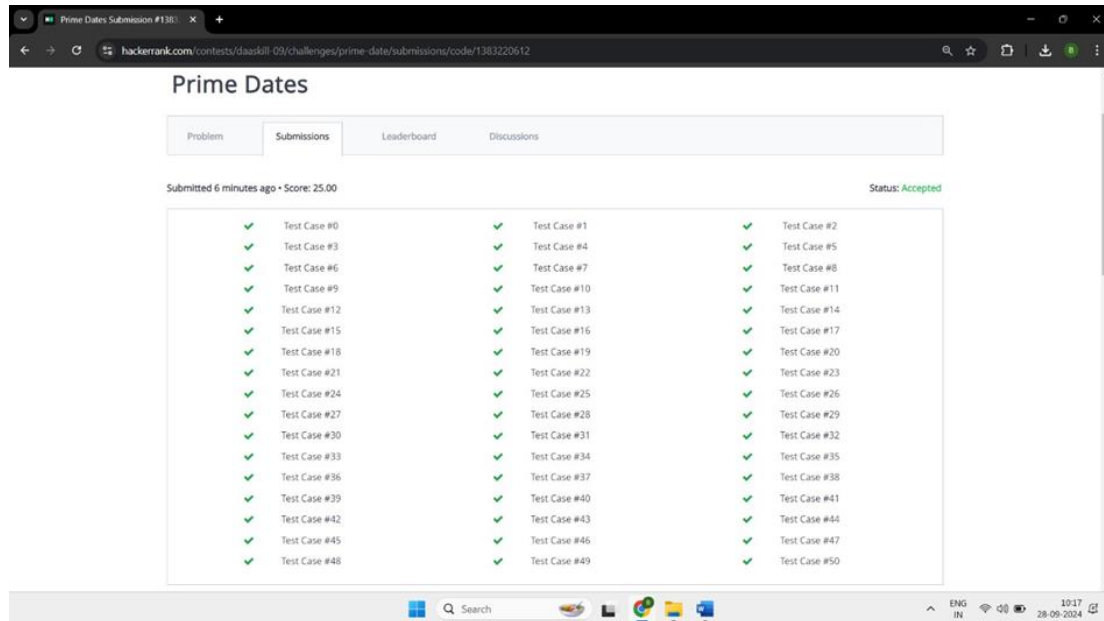
```

month[7] = 31
month[8] = 31
month[9] = 30
month[10] = 31
month[11] = 30
month[12] = 31
def findPrimeDates(d1, m1, y1, d2, m2, y2): storeMonth()
    result = 0
    while(True): x = d1
    x = x * 100 + m1 x = x * 10000 + y1
    if x % 4 == 0 or x % 7 == 0: result = result + 1
    if d1 == d2 and m1 == m2 and y1 == y2: break
    updateLeapYear(y1) d1 = d1 + 1
    if d1 > month[m1]: m1 = m1 + 1
    d1 = 1
    if m1 > 12:
    y1 = y1 + 1 m1 = 1
    return result;
    for i in range(1, 15): month.append(31)
    line = input()
    date = re.split('-| ', line)
d1 = int(date[0])
m1 = int(date[1])
y1 = int(date[2])
d2 = int(date[3])
m2 = int(date[4])

```

```
y2 = int(date[5])  
result = findPrimeDates(d1, m1, y1, d2, m2, y2)  
print(result)
```

Output:



The screenshot shows a web browser window displaying the HackerRank submission page for the 'Prime Dates' challenge. The page title is 'Prime Dates'. Below the title, there are tabs for 'Problem', 'Submissions', 'Leaderboard', and 'Discussions'. The 'Submissions' tab is active, showing a submission status of 'Accepted' and a score of 25.00. The submission was made 6 minutes ago. Below this, there is a table of 50 test cases, all of which are marked as 'Accepted' with a green checkmark.

Test Case #	Status
Test Case #0	Accepted
Test Case #1	Accepted
Test Case #2	Accepted
Test Case #3	Accepted
Test Case #4	Accepted
Test Case #5	Accepted
Test Case #6	Accepted
Test Case #7	Accepted
Test Case #8	Accepted
Test Case #9	Accepted
Test Case #10	Accepted
Test Case #11	Accepted
Test Case #12	Accepted
Test Case #13	Accepted
Test Case #14	Accepted
Test Case #15	Accepted
Test Case #16	Accepted
Test Case #17	Accepted
Test Case #18	Accepted
Test Case #19	Accepted
Test Case #20	Accepted
Test Case #21	Accepted
Test Case #22	Accepted
Test Case #23	Accepted
Test Case #24	Accepted
Test Case #25	Accepted
Test Case #26	Accepted
Test Case #27	Accepted
Test Case #28	Accepted
Test Case #29	Accepted
Test Case #30	Accepted
Test Case #31	Accepted
Test Case #32	Accepted
Test Case #33	Accepted
Test Case #34	Accepted
Test Case #35	Accepted
Test Case #36	Accepted
Test Case #37	Accepted
Test Case #38	Accepted
Test Case #39	Accepted
Test Case #40	Accepted
Test Case #41	Accepted
Test Case #42	Accepted
Test Case #43	Accepted
Test Case #44	Accepted
Test Case #45	Accepted
Test Case #46	Accepted
Test Case #47	Accepted
Test Case #48	Accepted
Test Case #49	Accepted
Test Case #50	Accepted

2.MINIMUM OPERATIONS

PROGRAM:

```
import java.util.*;

class MinimumOperations {
private static final Scanner scan = new Scanner(System.in);
int n, r ,g, b;
int[][] dp = new int[110][1<<3];

Vector<Integer> red = new Vector();
Vector<Integer> green = new Vector();
Vector<Integer> blue = new Vector();

public void get() {
n = scan.nextInt();

for (int i = 0; i < n; i++) {
r = scan.nextInt();
g = scan.nextInt();
b = scan.nextInt();
red.add(r);
green.add(g);
blue.add(b);
}
}

public void minOperations() {
int i, j;
for (i = 0; i <= n; i++) {
for (j = 0; j <= 7; j++) {
dp[i][j] = (1<<30);
}
}

dp[0][0] = 0;
```

```

for (i = 0; i < n; i++){
    for (j = 0; j <= 7; j++){
        dp[i + 1][j | 1] = Math.min(dp[i + 1][j | 1], dp[i][j] + green.get(i) + blue.get(i));
        dp[i + 1][j | 2] = Math.min(dp[i + 1][j | 2], dp[i][j] + red.get(i) + blue.get(i));
        dp[i + 1][j | 4] = Math.min(dp[i + 1][j | 4], dp[i][j] + red.get(i) + green.get(i));
    }
}

j = 0;
for (i = 0; i < n; i++){
    if (green.get(i) != 0) j |= 1;
    if (red.get(i) != 0) j |= 2;
    if (blue.get(i) != 0) j |= 4;
}

if (dp[n][j] >= (1<<30)) dp[n][j] = -1;
System.out.println(dp[n][j]);
}

}

class Solution {
    public static void main(String[] args) {
        MinimumOperations obj = new MinimumOperations();
        obj.get();
        obj.minOperations();
    }
}

```

OUTPUT:

Minimum Operations

Problem Submissions Leaderboard Discussions

Submitted a few seconds ago • Score: 25.00 Status: Accepted

✓ Test Case #0	✓ Test Case #1	✓ Test Case #2
✓ Test Case #3	✓ Test Case #4	✓ Test Case #5
✓ Test Case #6	✓ Test Case #7	✓ Test Case #8
✓ Test Case #9	✓ Test Case #10	✓ Test Case #11
✓ Test Case #12		

Submitted Code

Language: java 7 [Open in editor](#)

```
1 import java.util.*;
2
3 class MinimumOperations {
4     private static final Scanner scan = new Scanner(System.in);
5     int n, r, b;
6     int[][] dp = new int[110][1<<3];
7
8     Vector<Integer> red = new Vector();
9     Vector<Integer> green = new Vector();
10    Vector<Integer> blue = new Vector();
11
12    public void ret() {
```

10:35 28-09-2024