

AI at ACM

AI-ACM SIG Tasks

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BRANCH: S3 CSE AI (A)

TASK 1

Category 2

1) Complete Introduction to Machine Learning course on Kaggle:

Time taken: 6 hours max

Link: <https://www.kaggle.com/learn/intro-to-machine-learning>

2) Hackerrank Contest:

Time taken: 5 days max

Link: www.hackerrank.com/ai-sig-contest

TASK 2

Hackerrank Problems

1. COMPANY LOGO


Code:

```
import math
import os
import random
import re
import sys
from collections import Counter

if __name__ == '__main__':
    s = input()
    s1 = sorted(s)
    counter = Counter(s1).most_common(3)

    for x,y in counter:
        print(x, y)
```

Output:

Testcase 0 

Congratulations, you passed the sample test case.

Click the **Submit Code** button to run your code against all the test cases.

Input (stdin)

```
aabbccde
```

Your Output (stdout)

```
b 3  
a 2  
c 2
```

Expected Output

```
b 3  
a 2  
c 2
```

Company Logo

Problem

Submissions

Leaderboard

Discussions

Submitted 2 hours ago • Score: 10.00

Status: **Accepted**



Test Case #0



Test Case #1



Test Case #2



Test Case #3



Test Case #4



Test Case #5

2. TIME DELTA

Code:

```
#!/bin/python3
```

```
import math
```

```
import os
```

```
import random
```

```
import re
import sys
from datetime import datetime

# Complete the time_delta function below.
def time_delta(t1, t2):
    # Sun 10 May 2015 13:54:36 -0700
    # %a %d %b %Y %H:%M:%S %z


    time_form = "%a %d %b %Y %H:%M:%S %z"
    first_time = datetime.strptime(t1, time_form)
    second_time = datetime.strptime(t2, time_form)
    return str(abs(int((first_time-second_time).total_seconds()))))

if __name__ == '__main__':
    fptr = open(os.environ['OUTPUT_PATH'], 'w')
    t = int(input())

    for t_itr in range(t):
        t1 = input()
        t2 = input()
        delta = time_delta(t1, t2)
        fptr.write(delta + '\n')

    fptr.close()
```

Output:

Testcase 0 

Congratulations, you passed the sample test case.

Click the **Submit Code** button to run your code against all the test cases.

Input (stdin)

```
2
Sun 10 May 2015 13:54:36 -0700
Sun 10 May 2015 13:54:36 -0000
Sat 02 May 2015 19:54:36 +0530
Fri 01 May 2015 13:54:36 -0000
```

Your Output (stdout)

```
25200
88200
```

Expected Output

```
25200
88200
```

Time Delta

Problem

Submissions

Leaderboard

Discussions

Submitted 2 hours ago • Score: 10.00

Status: **Accepted**



Test Case #0



Test Case #1



Test Case #2

3. NO IDEA

Code:

```
input()
```

```
happiness = 0
```

```
array = list(map(int, input().split()))
```

```
set_a = set(map(int, input().split()))
```

```
set_b = set(map(int, input().split()))
```

```
for i in array:
```

```
    if i in set_a:
```

```
        happiness += 1
```

```
    elif i in set_b:
```

```
        happiness -= 1
```

```
print(happiness)
```

Output:

Testcase 0 ✓

Congratulations, you passed the sample test case.

Click the **Submit Code** button to run your code against all the test cases.

Input (stdin)

```
3 2
1 5 3
3 1
5 7
```

Your Output (stdout)

```
1
```

Expected Output

```
1
```

No Idea!

Problem

Submissions

Leaderboard

Discussions

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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

4. TRIANGLE QUEST 2

Code:

```
for i in range(1,int(input())+1):  
    print(((10**i)//9)**2)
```

Output:

Testcase 0 

Congratulations, you passed the sample test case.

Click the **Submit Code** button to run your code against all the test cases.

Score: 0

Input (stdin)

5

Your Output (stdout)

1
121
12321
1234321
123454321

Expected Output

1
121
12321
1234321
123454321

Compiler Message

Success

Triangle Quest 2

Problem

Submissions

Leaderboard

Discussions

Submitted 2 hours ago • Score: 10.00

Status: **Accepted**



Test Case #0



Test Case #1



Test Case #2



Test Case #3



Test Case #4



Test Case #5

5. VALIDATING VREADIT CARD NUMBERS

Code:

```
import re

inpt = int(input())
for i in range(inpt):
    number = input()

    c1 = bool(re.match(r"^[456]\d{15}$", number))
    c2 = bool(re.match(r"^[456]\d{3}\-\d{4}\-\d{4}\-\d{4}$", number))
    number = number.replace("-", "")
    c3 = bool(re.match(r"(?!.*(\d)(-?\1){3})", number))

    if (c1 or c2) and c3:
        print("Valid")
    else:
        print("Invalid")
```

Output:

Testcase 0 

Congratulations, you passed the sample test case.

Click the **Submit Code** button to run your code against all the test cases.

Input (stdin)

```
6
4123456789123456
5123-4567-8912-3456
61234-567-8912-3456
4123356789123456
5133-3367-8912-3456
5123 - 3567 - 8912 - 3456
```

Your Output (stdout)

```
Valid
Valid
Invalid
Valid
Invalid
Invalid
```

Expected Output

```
Valid
Valid
Invalid
Valid
Invalid
Invalid
```


Validating Credit Card Numbers

Problem	Submissions	Leaderboard	Discussions
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Submitted a few seconds ago • Score: 10.00

Status: Accepted

✓	Test Case #0	✓	Test Case #1	✓	Test Case #2
✓	Test Case #3	✓	Test Case #4	✓	Test Case #5

AI SIG CONTEST [Details ▶](#)

Challenges



<div>✓ Company Logo</div> <div>Success Rate: 100.00% Max Score: 10 Difficulty: Medium</div> <div>Try Again</div>	<div>💬 🏆 ⋮</div>
<div>✓ Time Delta</div> <div>Success Rate: 100.00% Max Score: 10 Difficulty: Medium</div> <div>Try Again</div>	<div>💬 🏆 ⋮</div>
<div>✓ No Idea!</div> <div>Success Rate: 100.00% Max Score: 10 Difficulty: Medium</div> <div>Try Again</div>	<div>💬 🏆 ⋮</div>
<div>✓ Triangle Quest 2</div> <div>Success Rate: 100.00% Max Score: 10 Difficulty: Medium</div> <div>Try Again</div>	<div>💬 🏆 ⋮</div>
<div>✓ Validating Credit Card Numbers</div> <div>Success Rate: 80.00% Max Score: 10 Difficulty: Medium</div> <div>Try Again</div>	<div>💬 🏆 ⋮</div>