



## DATA 228 – In Class Assignment

Group Name: Data Divers



1. **Sentiment Analysis:** Below are the screenshots of the program generated by ChatGPT




find if the sentence "i like salad" is positive, negative or neutral using the below prompts  
i like pizza positive  
i dont like pizza negative  
sometimes i like pizza sometimes I dont neutral




The sentence "I like salad" is a positive statement.







write optimized python code not more than 5 lines to get input from user and find out if the sentence is positive, negative or neutral using proper library



Here's a Python code that takes a sentence as input from the user and determines if it is positive, negative, or neutral using the TextBlob library:



python

Copy code

```
from textblob import TextBlob

sentence = input("Enter a sentence: ")

analysis = TextBlob(sentence)

if analysis.sentiment.polarity > 0:
    print("Positive")
elif analysis.sentiment.polarity == 0:
    print("Neutral")
else:
    print("Negative")
```





how to make my jupyter notebook run this code:  
from textblob import TextBlob

```
sentence = input("Enter a sentence: ")
```


```
analysis = TextBlob(sentence)
```

```
if analysis.sentiment.polarity > 0:  
    print("Positive")  
elif analysis.sentiment.polarity == 0:  
    print("Neutral")  
else:  
    print("Negative")
```



To run this code in a Jupyter Notebook, you can create a new cell and paste the code in the cell. Then, press `Shift` + `Enter` to run the code. You will be prompted to enter a sentence, and the output will be displayed below the code cell.  

Before running this code, make sure that you have the TextBlob library installed. You can install it by running the following command in your terminal or command prompt:

 Copy code

```
pip install textblob
```

If you already have the library installed, this code will work as expected.



Take " I like pizza" as input and give output for the following code:  
from textblob import TextBlob

```
sentence = input("Enter a sentence: ")

analysis = TextBlob(sentence)

if analysis.sentiment.polarity > 0:
    print("Positive")
elif analysis.sentiment.polarity == 0:
    print("Neutral")
else:
    print("Negative")
```



If you run the following code with the input `"I like pizza"`:



python

Copy code

```
from textblob import TextBlob

sentence = input("Enter a sentence: ")

analysis = TextBlob(sentence)

if analysis.sentiment.polarity > 0:
    print("Positive")
elif analysis.sentiment.polarity == 0:
    print("Neutral")
else:
```



If you run the following code with the input `"I like pizza"`:



python

Copy code

```
from textblob import TextBlob

sentence = input("Enter a sentence: ")

analysis = TextBlob(sentence)

if analysis.sentiment.polarity > 0:
    print("Positive")
elif analysis.sentiment.polarity == 0:
    print("Neutral")
else:
    print("Negative")
```

The output will be:

Copy code

Positive




Take " I dont like salad" as input and give output for the following code:

```
from textblob import TextBlob

sentence = input("Enter a sentence: ")

analysis = TextBlob(sentence)

if analysis.sentiment.polarity > 0:
    print("Positive")
elif analysis.sentiment.polarity == 0:
    print("Neutral")
else:
    print("Negative")
```

 If you run the following code with the input `"I don't like salad"`: 👍 🗨

python 📄 Copy code

```
from textblob import TextBlob

sentence = input("Enter a sentence: ")

analysis = TextBlob(sentence)

if analysis.sentiment.polarity > 0:
    print("Positive")
elif analysis.sentiment.polarity == 0:
    print("Neutral")
else:
    print("Negative")
```


The output will be:

📄 Copy code

```
Negative
```

## 2. Use a language model to help your team solve HackerRank coding problems, in the language of your choice

### Hacker rank – Easy Question



Given the participants' score sheet for your University Sports Day, you are required to find the runner-up score. You are given `n` scores. Store them in a list and find the score of the runner-up.

**Input Format**

The first line contains `n`. The second line contains an array of `n` integers each separated by a space.

**Constraints**

**Output Format**

Print the runner-up score.



You can find the runner-up score by using the following code in Python:



python

Copy code

```
n = int(input())
scores = list(map(int, input().split()))
scores.sort(reverse=True)
for score in scores:
    if score < scores[0]:
        print(score)
        break
```

Explanation:

- The first line takes the input for the number of scores, `n`.
- The second line takes the input for the scores and stores them in a list, `scores`.
- The list is sorted in reverse order to get the scores in descending order.
- The for loop iterates over the scores and checks if the current score is less than the highest score.
- If it is, it is the runner-up score and is printed.

Problem

Given the participants' score sheet for your University Sports Day, you are required to find the runner-up score. You are given  $n$  scores. Store them in a list and find the score of the runner-up.

Input Format

The first line contains  $n$ . The second line contains an array  $A[]$  of  $n$  integers each separated by a space.

Constraints

- $2 \leq n \leq 10$
- $-100 \leq A[i] \leq 100$

Output Format

Print the runner-up score.

Sample Input 0

```
5
2 3 6 6 5
```

Submissions

Leaderboard



Test case 0

Test case 1

Test case 2

Test case 3

Test case 4

Test case 5

Test case 6

Compiler Message

Success

Input (stdin)

Download

```
1 5
2 2 3 6 6 5
```

Expected Output

Download

```
1 5
```

## Hacker Rank - Medium Question



When users post an update on social media, such as a URL, image, status update etc., other users in their network are able to view this new post on their news feed. Users can also see exactly when the post was published, i.e, how many hours, minutes or seconds ago.

Since sometimes posts are published and viewed in different time zones, this can be confusing. You are given two timestamps of one such post that a user can see on his newsfeed in the following format:

Day dd Mon yyyy hh:mm:ss +xxxx

Here +xxxx represents the time zone. Your task is to print the absolute difference (in seconds) between them.

**Input Format**

The first line contains , the number of testcases.

Each testcase contains lines, representing time and time .

**Constraints**

Input contains only valid timestamps

.

**Output Format**

Print the absolute difference in seconds.

**Sample Input 0**

2

Sun 10 May 2015 13:54:36 -0700

Sun 10 May 2015 12:54:36 -0000





```
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
Sample Output 0
```

```
25200
88200
Explanation 0
```

In the first query, when we compare the time in UTC for both the time stamps, we see a difference of 7 hours. which is seconds or seconds.

Similarly, in the second query, time difference is 5 hours and 30 minutes for time zone adjusting for that we have a difference of 1 day and 30 minutes. Or



This problem can be solved by converting the timestamps to seconds since epoch and then subtracting the two timestamps to get the absolute difference in seconds. The epoch is a specific point in time, and converting timestamps to seconds since the epoch allows us to easily compare the time between different timestamps.  

Here is an example implementation in Python:

```
python  Copy code

import datetime

def time_difference(t1, t2):
    # Parsing the timestamps
```





specific point in time, and converting timestamps to seconds since the epoch allows us to easily compare the time between different timestamps.

Here is an example implementation in Python:

```
python Copy code

import datetime

def time_difference(t1, t2):
    # Parsing the timestamps
    t1 = datetime.datetime.strptime(t1, '%a %d %b %Y %H:%M:%S %z')
    t2 = datetime.datetime.strptime(t2, '%a %d %b %Y %H:%M:%S %z')

    # Calculating the difference in seconds
    difference = abs((t1 - t2).total_seconds())

    return difference

# Reading the number of testcases
testcases = int(input().strip())

for i in range(testcases):
    t1 = input().strip()
    t2 = input().strip()

    print(int(time_difference(t1, t2)))
```

[ChatGPT Jan 30 Version](#). Free Research Preview. Our goal is to make AI systems more natural and safe to interact with. Your feedback will help us improve.

Leaderboard

Discussions

Editorial

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

Sample Output 0

25200

88200

Explanation 0

In the first query, when we compare the time in UTC for both the time stamps, we see a difference of 7 hours. which is  $7 \times 3600$  seconds or 25200 seconds.

Similarly, in the second query, time difference is 5 hours and 30 minutes for time zone adjusting for that we have a difference of 1 day and 30 minutes. Or  $24 \times 3600 + 30 \times 60 \Rightarrow 88200$

Upload Code as File

Test against custom input

Run Code

Submit Code

Test case 0

Success

Test case 1

Input (stdin)

Download

Test case 2

Download

Expected Output

Download

1

2

2

Sun 10 May 2015 13:54:36 -0700

3

Sun 10 May 2015 13:54:36 -0000

4

Sat 02 May 2015 19:54:36 +0530

5

Fri 01 May 2015 13:54:36 -0000

1

25200

2

88200

## Hacker rank – Hard Question

Problem

Submissions

Leaderboard

Discussions

You are given a function  $f(X) = X^2$ . You are also given  $K$  lists. The  $i^{th}$  list consists of  $N_i$  elements.

You have to pick one element from each list so that the value from the equation below is maximized:

$$S = (f(X_1) + f(X_2) + \dots + f(X_k)) \% M$$

$X_i$  denotes the element picked from the  $i^{th}$  list. Find the maximized value  $S_{max}$  obtained.

$\%$  denotes the modulo operator.

Note that you need to take exactly one element from each list, not necessarily the largest element. You add the squares of the chosen elements and perform the modulo operation. The maximum value that you can obtain, will be the answer to the problem.

**Input Format**

The first line contains 2 space separated integers  $K$  and  $M$ .

The next  $K$  lines each contains an integer  $N_i$  denoting the number of elements in the  $i^{th}$  list, followed by  $N_i$  space separated integers denoting the elements in the list.

**Constraints**

- $1 \leq K \leq 7$
- $1 \leq M \leq 1000$
- $1 \leq N_i \leq 7$
- $1 \leq \text{Magnitude of elements in list} \leq 10^9$

**Output Format**

Output a single integer denoting the value  $S_{max}$ .

Change Theme

Language Python 3

Exit Full Screen View

```
1 # Enter your code here. Read input from STDIN. Print output to STDOUT
2 def maxVal(K, M, arr):
3     from itertools import product
4     max_value = 0
5     for combination in product(*arr):
6         value = sum(i**2 for i in combination) % M
7         max_value = max(max_value, value)
8     return max_value
9
10 K, M = map(int, input().strip().split())
11 arr = [list(map(int, input().strip().split()[1:])) for _ in range(K)]
12 print(maxVal(K, M, arr))
13
```

Upload Code as File

Test against custom input

Run Code

Submit Code

Problem

Submissions

Leaderboard

Discussions

You are given a function  $f(X) = X^2$ . You are also given  $K$  lists. The  $i^{th}$  list consists of  $N_i$  elements.

You have to pick one element from each list so that the value from the equation below is maximized:

$$S = (f(X_1) + f(X_2) + \dots + f(X_k)) \% M$$

$X_i$  denotes the element picked from the  $i^{th}$  list. Find the maximized value  $S_{max}$  obtained.

$\%$  denotes the modulo operator.

Note that you need to take exactly one element from each list, not necessarily the largest element. You add the squares of the chosen elements and perform the modulo operation. The maximum value that you can obtain, will be the answer to the problem.

**Input Format**

The first line contains 2 space separated integers  $K$  and  $M$ .

The next  $K$  lines each contains an integer  $N_i$  denoting the number of elements in the  $i^{th}$  list, followed by  $N_i$  space separated integers denoting the elements in the list.

**Constraints**

- $1 \leq K \leq 7$
- $1 \leq M \leq 1000$
- $1 \leq N_i \leq 7$
- $1 \leq \text{Magnitude of elements in list} \leq 10^9$

**Output Format**

Output a single integer denoting the value  $S_{max}$ .

Upload Code as File

Test against custom input

Run Code

Submit Code

Python

\*\*\*

You have earned 50.00 points!

You are now 65 points away from the 4th star for your python badge.

41%

155/200

Test case 0

Test case 1

Test case 2

Test case 3

Test case 4

Test case 5

Test case 6

Compiler Message

Success

Hidden Test Case

Unlock this testcase for 5 hackos.

Unlock