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# User Recommendation for Detecting Stress with Factor Graph Model

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**Abstract:** *In today's world generally humans feel stress for very small issue that might be for face to face interviews and some other issues, psychological stress is becoming a threat to people's health nowadays. According to worldwide recent survey over half an population feel stress during last two years.*

*With the development of social media more people share their daily activities and they try to interact with their friends through their posts. In this paper, we find that users stress state is closely related to that of his/her friends in social media. First we maintain a set of text related words that is positive, negative, stressed words in the database. The user will identify the stress in the post which was posted by his/her friend and suggest for his/her problem through.*

*Re tweeting can be classified through Factor Graph Model. If a stress word which is not maintained in the database then it fails to identify stress word which was written in the comment.*

*For that the user will recommend a new stress word to the admin. If admin is not maintained in the database what the user will recommended, then admin will include that filter into the database else if admin is already maintaining that word it shows a message that word already exists.*

**Keywords:** *.Stress, Factor graph model, Social media, Social interactions*

## I. INTRODUCTION

Compared to non-stressed users, stressed users are 14% higher in today's world. Psychological stress states are usually more enduring, changing over different time periods according to their moods. User can tweet based on their emotions, actions and stress.

In this paper we use an classifier of Content Based retrieval system (CBIR), It is a low- level visual features that is content are automatically extracted from content descriptions which was given by the user while retweeting.

We use factor graph model that is used while re tweeting the user it classifies that re-tweeting belongs to either stress category retweets or positive category re-tweets or negative category re tweets.

The system finds that users stress state is closely related to that of his/her friends and us maintaining a database stress words, positive words and negative words like AFINN kind of dictionary.

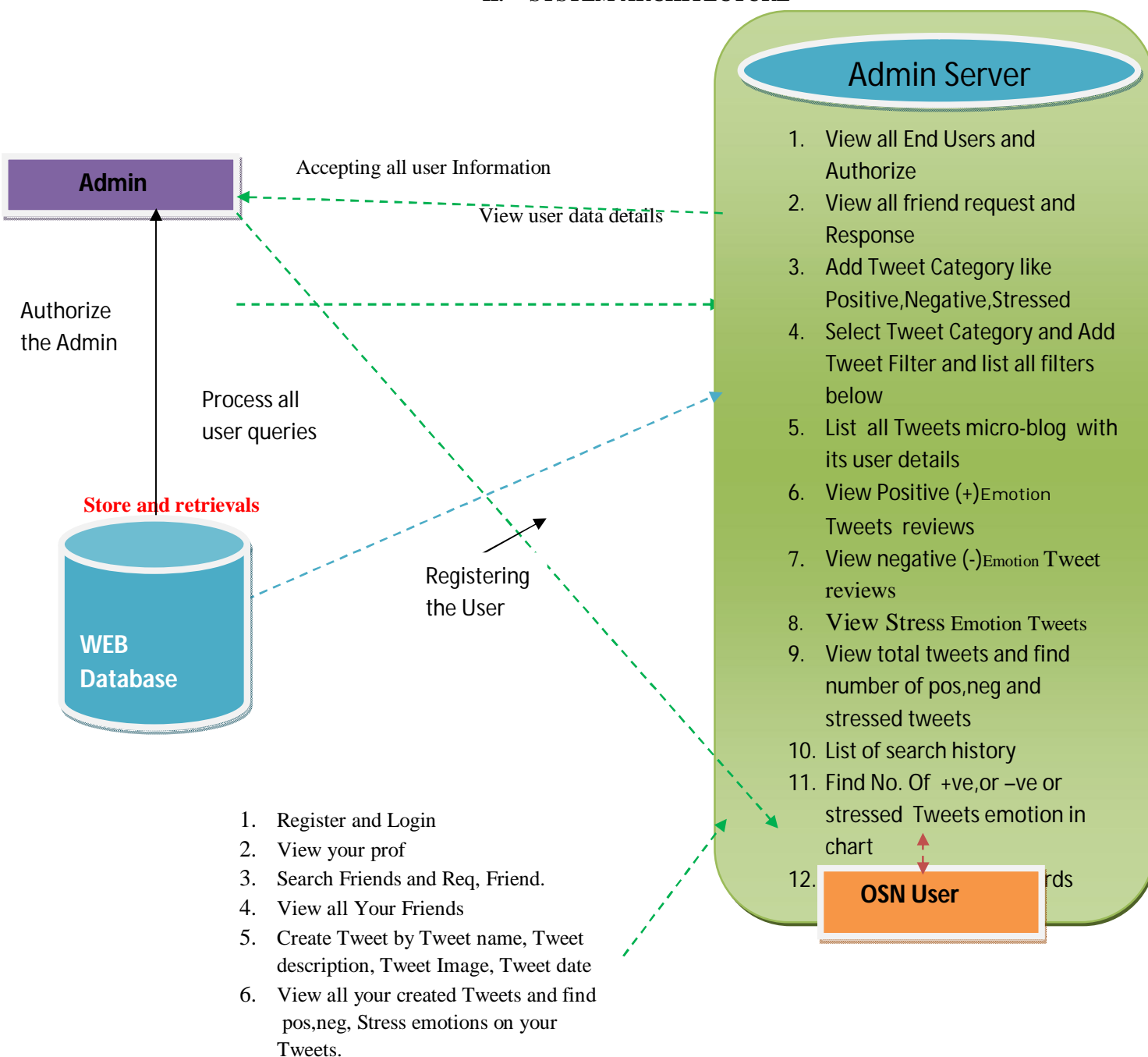
The experimental results about tweet name are shown in graph model for stressed users. In this paper we used algorithms are Random forest and Support Vector Machine(SVM).

In this paper, random forest works when the user wants to write retweets for user posts it differentiate that retweet is either positive, negative or stress In previous paper, if a user tweets according to his/her mood of their daily activities Example: if a user posted that iam feeling stress it shows that user in stress mood that post is seen by his friends.

If his/her friends want to retweet for his friend they will retweet those who are posted. In this the main drawback is if admin is not maintained a stress word which was posted by the user, then the system fails to identify the stress word which was posted by the user because of that we could not find a better solution for them. In proposed work, to overcome all these problems the user will recommend a new stress words to the.

Admin will verify which the user recommended words, if the admin is not maintained in his database then admin will include that filter into stress database. Else if admin is maintained in his database it shows a message that word already exists. A new stress word that is added after admins database the details of the user and recommended words will clear after added into the database

## II. SYSTEM ARCHITECTURE



## III. RELATED WORK

In this paper [1] they made a analysis of based on users personality test. Here user's personality test can be accurately predicted through the public available information on their twitter. Instead of conducting personality test users personality can be accurately predicted through public available information on their twitter profile. The main drawback is if the user provides fake information the entire prediction goes wrong. In the paper the algorithm used is SVM, Naive Bayesian this paper[2] they made an analysis of sentiment of emojis. It is computed from the sentiment of tweets which they occurs. The main drawback is tweets sentiment is only calculated based on only emojis, but not emotions of text. The algorithm/technique used in this paper is Artificial Neural Network and Navie Bayesian this paper[3] the made analysis on emotions. The emotional impact is very important for understanding the intrinsic meanings of images. The main drawback is experiment mainly focused only on images but not text. The algorithms that are used in this paper is SVM. In this paper [4] the analysis is done on sentiments strength detection. It extracts sentiment informal

English text using new strength from methods to exploit the de-facto grammars and spelling styles of cyberspace. The main drawback is the performance of sentiment informal is poor. The algorithm used in this paper is J48 and Random Forest

#### IV. EXISTING SYSTEM

In previous systems they can detect the stress words based on user tweets only that is maintained by the admin in data base. If the stress word which is not maintained by the admin, it fails to identify the stress word which was posted by the user and we couldn't find a better solution for them by re posting.

#### V. PROPOSED WORK

These problems are overcomes in the proposed system. In the proposed system the user directly contacts with the admin, user will recommend a stress word to the admin, admin verifies the user recommended words, if admin is maintained by the user recommended word then it shows message of word already exists else it will include the user recommended filter into the database

##### A. Functionalities

How to detect Stress based on Social Interactions

- 1) Finding stress based on social media is achieved by following steps
- 2) Extract tweets from different users and retweets
- 3) Use AFINN kind of dictionary words for identifying stress ,positive, negative based words
- 4) Compare the different user tweet names using graph

#### VI. IMPLEMENTATION

This system consists of different types of modules.

##### A. Admin

In this module, the Admin has to login by using valid user name and password. After login successful he can do some operations such as View all End Users and Authorize, View all friend request and Response, Add Tweet Category like Positive, Negative, Stressed ,Select Tweet Category and Add Tweet Filter and list all filters below, List all Tweets micro-blog with its user details, View Positive (+)Emotion Tweets Emotions ,View negative (-)Emotion Tweet Emotions ,View Stress Emotion Tweets, View total tweets and find number of positive, negative and stressed tweets ,List of search history, Find No. Of +ve,or -ve or stressed Tweets emotion in chart ,recommended by user stress words.

##### B. Viewing All Positive and Negative, Stress Emotions

In this module, the admin can see all Positive and Negative Emotions posted by all users for cross domain Micro Blogs. The Review is considered either as Positive or Negative or stressed based on the Positive and Negative and stressed list of words which are used to find the review as positive or negative

stress	emotional
stress	tense
stress	workload
stress	hang
stress	working overtime
stress	failed the exam
stress	busy
stress	pressure
stress	strain
stress	worry
stress	nervousness

**C. View and Authorize Users**

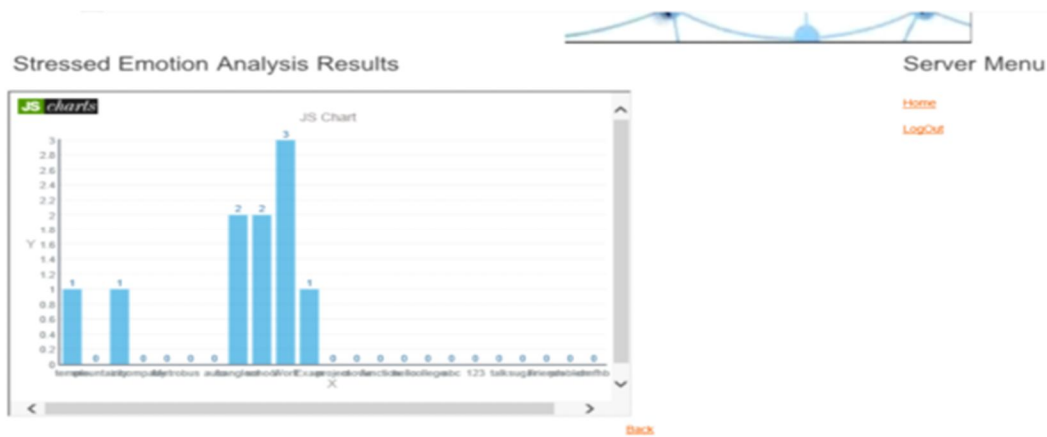
In this module, the admin can view the list of users who all registered. In this, the admin can view the user’s details such as, user name, email, address and admin authorizes the users.

## All User Details...

Username	Email	mobile	View
rakesh	r@gmail.com	9538180903	<a href="#">more info..</a>
omkar	o@gmail.com	9538180903	<a href="#">more info..</a>
ramesh	r@gmail.com	9538180903	<a href="#">more info..</a>
ram	r@gmail.com	9538180903	<a href="#">more info..</a>
Manjunath	tmksmanju13@gmail.com	9535866270	<a href="#">more info..</a>
priya	priya@gmail.com	9898987652	<a href="#">more info..</a>
deepika	deepika@gmail.com	7013422384	<a href="#">more info..</a>
dinesh	dinesh@gmail.com	6579043342	<a href="#">more info..</a>
ventakesh	venkatesh@gmail.com	8765432100	<a href="#">more info..</a>
sathvik	sathvik@gmail.com	7654321902	<a href="#">more info..</a>
ravi	ravi@gmail.com	9876543210	<a href="#">more info..</a>
sudha	sudha@gmail.com	8765432111	<a href="#">more info..</a>
fgy	dfjbsdgh@gmail.com	9685748596	<a href="#">more info..</a>
hemanth	hemanth@gmail.com	8500759077	<a href="#">more info..</a>
prasanna	prasanna@gmail.com	7890632211	<a href="#">more info..</a>
yuvaraj	palleyuvayaru@gmail.com	7894561230	<a href="#">more info..</a>
phani	phani@gmail.com	6300436987	<a href="#">more info..</a>
sudheer	sudheer@gmail.com	7894896215	<a href="#">more info..</a>
tarun	tarun@gmail.com	9988665544	<a href="#">more info..</a>
kalyani	kalyani@gmail.com	9874563213	<a href="#">more info..</a>
vamsi	vamsi@gmail.com	8125478963	<a href="#">more info..</a>
s	s@gmail.com	8907657880	<a href="#">more info..</a>
r	r@gmail.com	ssssssssssssss	<a href="#">more info..</a>
priyanka	priyanka	963258	<a href="#">more info..</a>
sai	sai@gmail.com	9685748596	<a href="#">more info..</a>
babu	babuy@gmail.com	968574858	<a href="#">more info..</a>

**D. View Chart Results**

In this, the cross domain number of positive and negative and stress Emotions for particular post will be shown in a chart by selecting particular Micro Blogs from a combo box



#### E. User

In this module, there are n numbers of users are present. User should register before doing any operations. Once user registers, their details will be stored to the database. After registration successful, he has to login by using authorized user name and password. Once Login is successful user will do some operations like View your profile, search Friends and Requests, Friend. View all Your Friends, Create Tweet by Tweet name, Tweet description, Tweet Image, Tweet date, View all your created Tweets and find positive, negative, Stress emotions on your Tweets, View all your friends tweets and re-tweet by feeding your sentiments or comment, recommend to admin

#### F. Viewing All Micro Blogs Emotions and give Comment

In this, the user can view all the Micro Blogs details, Emotions and user can comment on them by entering their own Emotions. Each time the rank will be incremented for particular Micro Blogs once the review is posted

#### G. Users Recommend Words

User will recommend to admin about stress words and admin include that filter into his database

In admin side it shows user recommended words, if admin wants that user recommended word it includes into his database

#### H. Factor Graph Model

Factor graph model is mainly used to maintain filtering data like positive, negative, stress related words.

#### I. Content Based Retrieval

Content Based retrieval system (CBIR) low- level visual features that is content are automatically extracted from content descriptions and indexing purposes

#### J. SVM

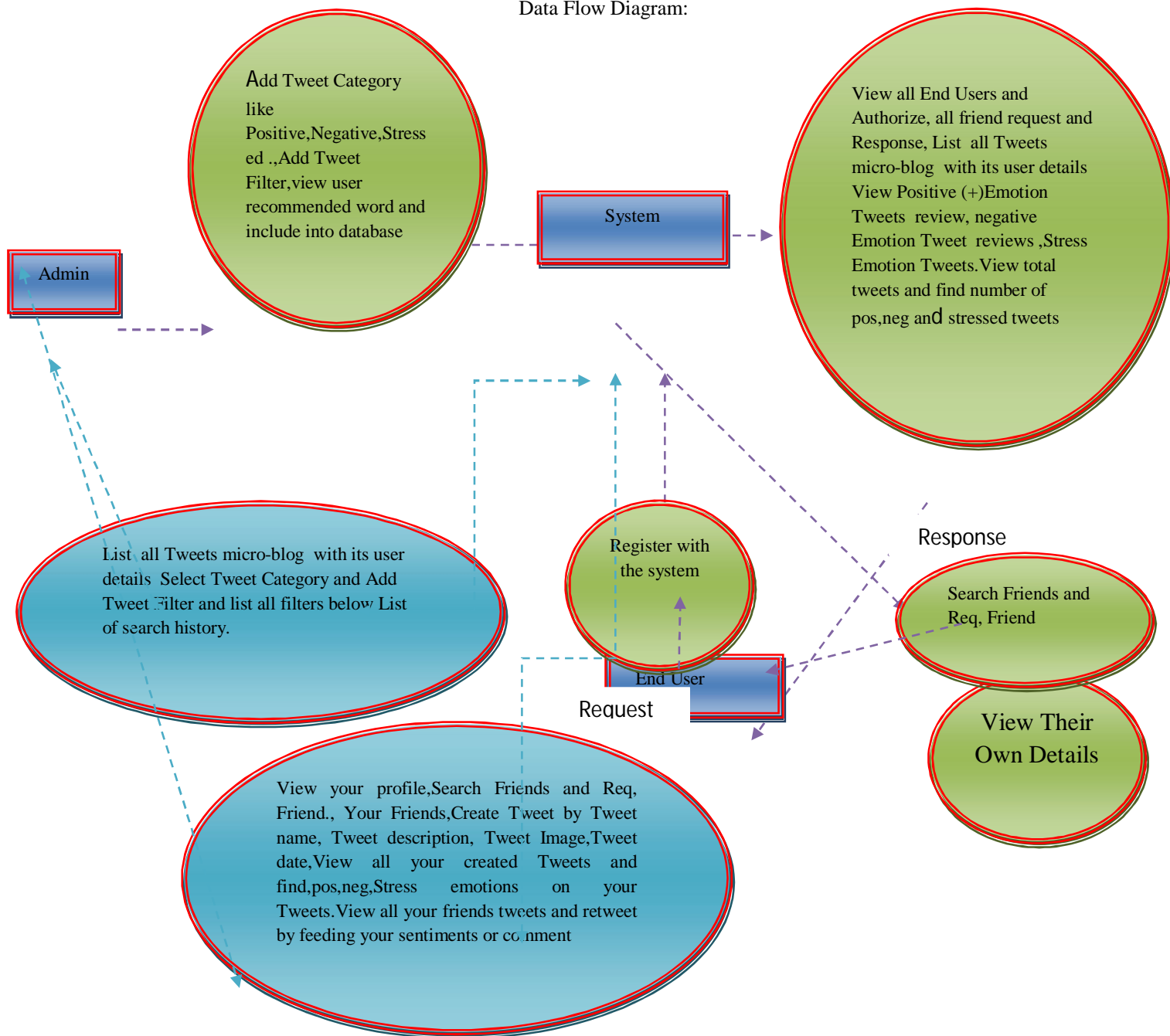
Support Vector Machines are based on the concept of decision planes that define decision boundaries. A decision plane is one that separates between a set of objects having different class memberships. A schematic example is shown in the illustration below. In this example, the objects belong either to class GREEN or RED. The separating line defines a boundary on the right side of which all objects are GREEN and to the left of which all objects are RED. Any new object (white circle) falling to the right is labeled, i.e., classified, as GREEN (or classified as RED should it fall to the left of the separating line When user click on re-tweet and write comment to tweet based on re-tweet word it is classified Positive, negative and stress.

#### K. Random Forest Classifier

Random forest classifier creates a set of decision trees from randomly selected subset of training set. It then aggregates the votes from different decision trees to decide the final class of the test object.

- 1) When user writes the re-tweet for the user posted tweet.
- 2) Based on re-tweet whether it is positive, negative or both

Data Flow Diagram:



### VII. CONCLUSION

Now-a-days, the main treat to the health is stress. To overcome humans emotions of stress the best kind of platform is social sites..We used a technique of automatic content based retrieval, due to this technique the tweet which is posted by the user is analyzed according to user tweets. The results are shown in the graph model about user tweets with tweets name..The main advantage in this paper is user will recommend stress words because of that, the system never fails to identify the stress words which is given by user. The recommended words are updated and detect stress in the tweets. This is very useful for those who are in stress to get information/suggestion from other friends.



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45.98



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