

A Recommendation System of Yogaasana for the Healthy Life

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Abstract— Yoga is a spiritual science for the integrated and holistic development of our physical, mental and spiritual aspect of being. The philosophy of yoga is practical and applicable in our day-to-day life. Nowadays yoga is becoming so popular and the people are interested to learn yoga and also to know the multiple benefits of doing yogaasana. So a recommendation system is developed based on the benefits of yoga, human body joints and the problem associated with the different body parts. The system would recommend yogaasana based on the search of keyword (Back pain, Knee pain), then comparing the keyword with the metadata to get the counts of occurrence of Id's of yogaasana and then based on the number of counts and the highest number of visitors to the yogaasana the system recommends proper yogaasana for the betterment of human health and life.

Keywords—Keyword; yogaasana; Metadata;

I. INTRODUCTION

The word Yoga is derived from the Sanskrit word Yuj. Yoga means union of individual consciousness with the spirit and is a 5000 years old Indian body of knowledge. Though many think of yoga as only physical exercise where people twist, turn, stretch and breathe in the most complex ways, these are only the most superficial aspect of this profound science of unfolding the infinite potentials of the human mind and soul. Multiple benefits of doing yoga regularly can be achieved by people. A recommendation system is developed based on the problems in the parts of the body (such as Back pain, Thighs pain, Knee pain) and the system suggests the different yogaasana.

A. Recommendation

A recommendation system is an information filtering system that predicts result for a user input. The System is built because of predicting items that a user has an interest in. In this, a

recommendation system is developed based on the keyword search (Knee pain, thigh pain), comparison of the keyword with the metadata to get the counts of occurrence of Id's of yogaasana and then based on the number of counts and

The highest number of visitors to the yogaasana the system recommends proper yogaasana.

The system recommends suitable yogaasana based on the practitioner's interest and also displays the precaution to be taken in prior to doing yogaasana and thus the system helps the practitioners to do proper yogaasana for the betterment of health and life.

II. LITERATURE SURVEY

The paper Epilepsy Control by Prayer Type Yoga Exercise addresses the epilepsy in which how the disease can be controlled using the yoga technique of prayer. Epilepsy is caused by sudden flurries of electrochemical activity in the brain, which interrupt the 'conversation' among neurons. Consciousness, memory, sense, speech, mood, movement, and motions can all be affected during the one or two minutes that the seizure lasts. The paper proposes the study about yoga "prayer", which is not really an exercise but similar to yoga, helping in controlling of epilepsy and also physically, mentally, spiritually relaxation can also be achieved through this method. Spiritual believe and practices have an important impact on both physical and mental health [1].

As a healthful aerobic exercise, yoga shall not be exclusive to women. men also needs yoga for relieving pressure as too much pressure is put on men in the modern fast paced work and life and men have to undertake more duties and liabilities in this society. In this paper, research is conducted into yoga's functions for men's health and its

influence on men's bodies and minds, and through the research, it is found that yoga may effectively activate body fat, regulate the heart rate, reduce the load on heart and vitalize men in regard to their physical health so that they may work and live a life confidentially [2].

Compare the sensible perspiration & the change of body fat after dynamic exercise (aerobics) & complex static exercise (aerobics yoga). The results show that body fat decreased greater during complex static exercise than during dynamic exercises ($p < 0.05$). Though the changes between the body weights of the 2 groups weren't significant, complex static exercises decline of body fat greater than the dynamic exercise. This suggests that sensible perspiration of complex static exercise have a certain role in promoting weight loss [4].

Yoga is a 5000 years old Indian body of knowledge. Though many think of yoga as only physical exercise where people twist, turn, stretch and breathe in the most complex ways, these are only the most superficial aspect of this profound science of unfolding the infinite potentials of the human mind and soul. The paper tells the basic yoga posture, benefits of doing particular yoga asana and the precautions [3].

III. ALGORITHM

The working model of algorithm is depicted in following block diagram

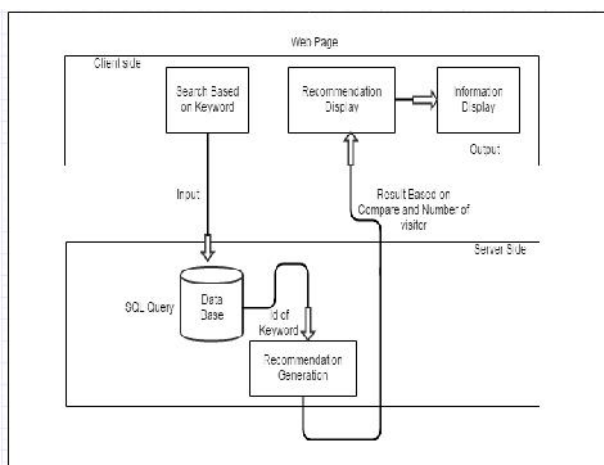


Figure 1: Block diagram for the System

Algorithm:

1. Take a keyword (Back pain, knee pain) as input
2. If keyword length is one
3. Search the keyword in metadata and recommend the result
4. If the keyword length is two
5. Search the keywords in metadata and take the Id of the metadata
6. Compare the occurrence of Id to get the count of Id.
7. If the count of one Id is same as the count of other id then the count of number of visitor is taken and the count with highest number of visitor is recommend
- Else the Id with highest count is recommend
8. If the keyword length is greater than two
9. Step 5 is repeated to get the Id
10. Step 6 is repeated with the first and the second keyword to get the count of Id
11. The result of step 11 is compared with the rest of keywords
12. Step 7 is repeated
13. Step 8 is repeated
14. End

B. Explanation:

1. Keyword Search Phase

In keyword search phase, input keywords (such as Back pain, Knee pain) is taken from the user for which the recommendation is to be done. These keyword is searched with the metadata stored in the database to get the "id" of the keyword as shown in the figure 2.

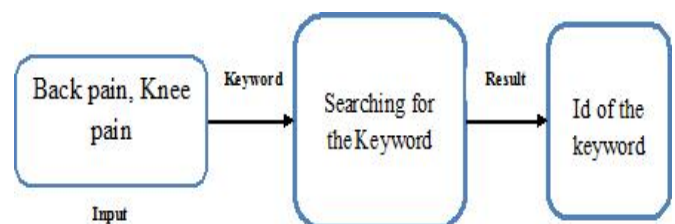


Figure 2: Block diagram for keyword search phase

2. Comparing the searched keyword phase

In this phase, an “id” of the keyword is taken from the previous phase and checked for the number of occurrences of the “id” that is, comparing how many times the id has been repeated as shown in the figure 3.

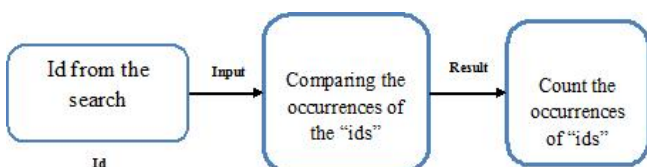


Figure 3: Block diagram for comparing the keyword

3. Processing phase

In this processing phase, the occurrences of the “ids” is taken from the previous phase that is, from the comparison phase.

If the count of one “id” is more than the count of other id then the count with the highest number is recommended (that is the name of the yoga asana along with the image, video, precaution) or if the count of one id is same as that of the count of other id then it depends on the number of visitors to that particular yoga asana.

In this case the recommendation is done based on the highest number of visitors as shown in the figure 4.

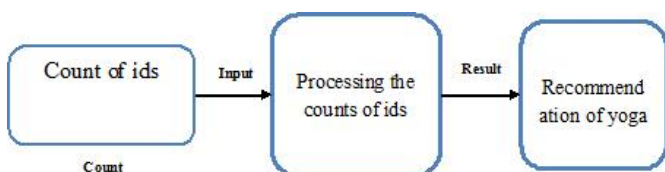


Figure 4: Block diagram for processing phase

C. Illustrating an example

Consider an example of the search where the input search contains Ankle pain, Thighs pain, depression, Backache, and Boost confidence.

ID	Yogaasana	Metadata	No. of Visits
1	Ardha chandrasana	Ankle, Thighs, Spine, Groins, Digestion.	3
2	Ardha matsyendrasana	Shoulder, Hips, Neck, Backache, Thighs.	1
3	Utthitha trikonasana	Thighs, Knees, Ankles, Backache	2
4	Paschima baddha hastasana	Boost confidence, Depression.	2
5	Paschima namaskarasana	Depression, Wrist, Boost confidence	0

Table 1: shows the yogaasana with metadata and number of visitors to the yogaasana

The input keyword is searched with the metadata stored and suitable yogaasana Id is retrieved from the search as shown in the below table 2.

2,3	Backache	Ardha matsyendrasana, Utthitha trikonasana
4,5	Boost Confidence	Paschima baddha hastasana, Paschima namaskarasana,
	IDKeywords	Yogaasana
1,3	Ankle	Ardha chandrasana, Utthitha trikonasana,
1,2,3	Thighs	Ardha chandrasana, Ardha matsyendrasana, Utthitha trikonasana
4,5	Depression	Paschima baddha hastasana, Paschima namaskarasana

Table 2: shows the yogaasana Id retrieved

Based on the number of occurrences of the Id the recommendation is done. If the count of one Id is same as the count of other Id then based on the highest number of visitors to the yogaasana the recommendation is done.

Yogaasana	ID count	No. of Visits	Recommendation of Yoga asana
Ardha chandrasana	2	3	2nd
Ardha matsyendrasana	2	1	4th
Utthitha trikonasana	3	2	1st
Paschima baddha hastasana	2	2	3rd
Paschima namaskarasana	2	0	5th

Table 3: shows the recommendation based on the id count and number of visitor

VI. Conclusion

This work represents the recommendation system of yogaasana based on the benefits of yogaasana, human body joints, and the problems associated with the body parts. This recommendation system is built based on the search of the keyword, comparison of the Id of keyword with the metadata and the numbers of visitors who visit the particular yogaasana and thus recommends suitable yoga pose.

The system recommends suitable yogaasana based on the practitioner's interest and also displays the precaution to be taken in prior to doing yogaasana for the betterment and healthier life of human beings.

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