MEDICAL REPORT(MALERIA) RECHECKING

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ABSTRACT

Malaria is a unpredictable and extremely dangerous disease hence we might take attention to it and work for accurate diagnosis and immediate suitable treatment. The objective of this topic is to prepare an algorithm for malaria detection or recheck the report using fuzzy logic. Before using fuzzy logic we have to include literature survey, observation , interview, patient's report studies and consultationwill used for recheck the data collection or the report which is to be rechecked. Fuzzy logic is very useful system for analyze complex problems in dealing. There are maximum cases came in knowledge where human judgment (operator's mistake)cause false report that might possible that will cause wrong medical procedure on patient.

So the aim of my research topic is to generate a raw data/parameter related to the reports so that false report generation can be stopped by us.

I.   KEYWORD

Fuzzy logic

II.   INTRODUCTION

Malaria is an dangerous and life harm disorder caused by a parasite named plasmodium. Maleria isconductedby the bite of infected female 'Anopheles mosquitoes'. When the mosquito bite the person, then the person get infected . The symptoms usually present between 10 to 28 days after infection.Some showing symptoms within 7 days.

Fever is common symptom in malaria, But if someone infected from malaria, the fever will occur in cycles. In malaria the fever starts with high chills and slowdown with sweat .Fever followed by shivering and then fever again. The process of shivering, chills and sweating are the indications of maleria. Abdominal pain and cold(Nausea) are the other symptoms of malaria. If any of them symptoms are present then doctor advised to the infected person to go for malaria test. After test if the malaria found then the report will reffered as "POSITIVE" and if malaria is not found then it will reffered as "NEGATIVE". This is compounded by the fact that most symptoms are experienced and described differently by patients and many symptoms may overlap in the same patient. Each individual patient may also have a multitude of characteristics other than the disease, rendering it unique in itself. Medical problems cannotanalyzed using imagination.

A.   MALERIA SYMPTOMS

- **Fever**
- **Shivering**
- **Vomiting**
- **Enlarge liver**
- **Joint pain**
- **Abdominal pain**
- **Anemia**
- **Body Weakness**

B.   FUZZY LOGIC

This concept of fuzzy logic was first developed by **Dr.LotfiA. Zadeh** in1960s. The word fuzzy means which are not very clear. In real life many times we have to face the situations where we can't properly say that the situation is true or false. So with the help of fuzzy logic we can analyze the situation and also consider the suspicions of any situation. Fuzzy logic helps to solve a problem after analyzing the available data. After analyzing it gives output for the given input.

Characteristics of Fuzzy logic:

- Helps to give maximum possible outputs for the given input.
- Logic may have two possible values which represent two possible solutions.

- Fuzzy logic helps us to analyze the situation where we are not able to calculate the situation on the basis of mathematics.

- It categorized the situation in maximum two or three outputs.
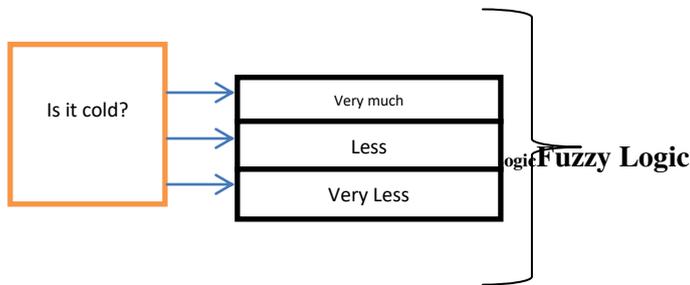
III.   RESEARCH METHODOLOGY,PROCESS

METHODOLOGY

The information gathered fromthe person those are infected from maleria ,observation of that person's activities, meetings with that person, patient's report studies and consultation were used for gathering information to establish the requirement of the algorithm, and flowchart.
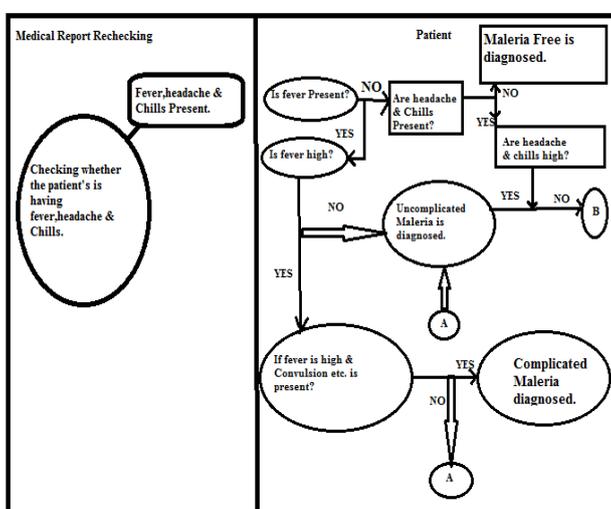

ALGORITHM

The planned algorithm used is as follows -

1. Patient's Number.
2. If the Number is already in database then,
   Read name, age and gender
   Else
   Type name, age and gender.
3. Type the temperature, check blood sample range.
4. Evaluate the symptoms against the fuzzy rule in the knowledge base :
   - Check fever is high and with shivering or not.
   - Check fever, shivering and sweat are in cycle or not .
   - Determine whether there is Malaria.
5. If Malaria then,
   Prescribe the medicines based on the level of infection.
   Else
   Give "Report is incorrect" as a message.
6. Stop.

FLOWCHART
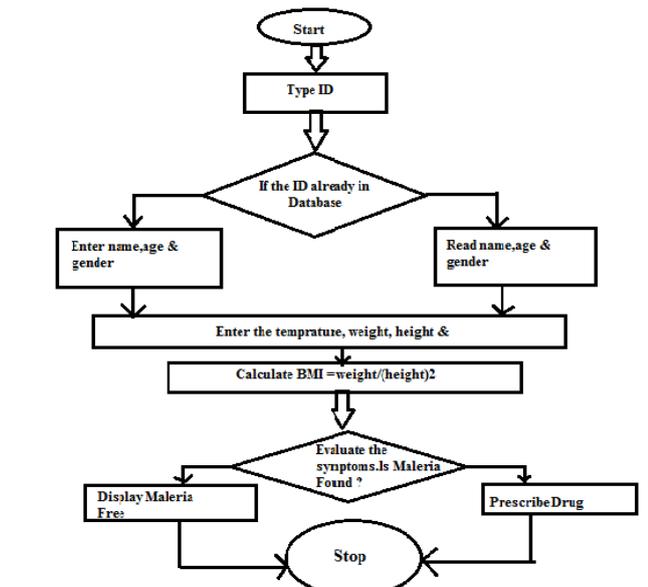
IV.   Conclusion

Fuzzy Logic is designed to allow the computer to define the differences among the information which is not fully true nor fully false. Overall study of fuzzy logic defines that it is very easy and understandable system. Fuzzy logic provides a most effective solution to complex issues. With this research study we can stop the making of false reports or if any false report is generated by mistake then it can be easily rechecked by using earlier described method & algorithm.

V.   References

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