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**Address: - Dr. Ashak Hussain Malik House No. 221 Gangoo, Pulwama, Jammu and Kashmir, India - 192301, Cell: 09086405302, 09906662570, Ph. No: 01933-212815,**
**Email: nairjc5@gmail.com, nairjc@nairjc.com, info@nairjc.com Website: www.nairjc.com**

# HEALTHCARE SYSTEM

**SNEHAL MANE, MEENAKSHI YADAV, NAMRATA HUMBE**

Under Guidance of **SUJA JAYACHANDRAN**

Department of Computer Engineering, Vidyalankar Institute of Technology, Wadala (E), Mumbai-400037

## ABSTRACT:

***In are day to day life heath is very important aspects. Prevention from various disease and tackled to disease in particular situation task. HealthCare System is a website which is very easily available to user on mobile phones, computer. HealthCare System is the System that delivers health care services to meet the health needs of the people. HealthCare System; end users would provide information about their health in detail in order to have proper treatment. The information would include all past health issues and treatments taken with along durations. Suppose that end user is suffering from headache and fever than before directly delivering the result of basic or common medicine, that System would ask user with certain Questions and user would answer those certain set of question that they would also needed to provide to the doctor in that case HealthCare System will provide medicine to the user according to information which is provided by user also it would suggest some Home Remedies to user. Once information provided by users wouldn't need to give it again and again in later case. Backup history is created. It is an efficient System for time saving prospect and many more of this era is quite big Such a HealthCare System is very beneficial to the user in order to keep every detailed health history in a secure manner.***

*Keywords:* ***Supervised concept learning, Decision tree***

## INTRODUCTION:

Web technology has quickly become the world's most common way of transmitting information/ data, and services in the developing world. HealthCare System website provides the medicine for basic disease and also suggests prevention method, home remedies. This system is applicable for only basic level disease or symptoms like suppose user have cold or fever for 1-2 day if it is more than 2days then it's necessary to concern to a doctor. This system is design for age 18 and above.

This system meets our customer requirements and enhances customer satisfaction through continual improvement of our system achieve quality objectives by establishing, implementing and maintaining a documented and effective Quality

Management System providing the information related to health care. This system provides the symptoms of diseases, so user can find out the diseases he is going through and find out correct medicine.

**This application contains three main modules:**

***Symptoms module:*** It includes the details about the symptoms.

***Disease module:*** This module gives a disease name according to the symptoms provided by user.

***Medicine module:*** This module suggests appropriate medicine according to the disease.

## PROCESS MODEL USED FOR THE PROJECT:

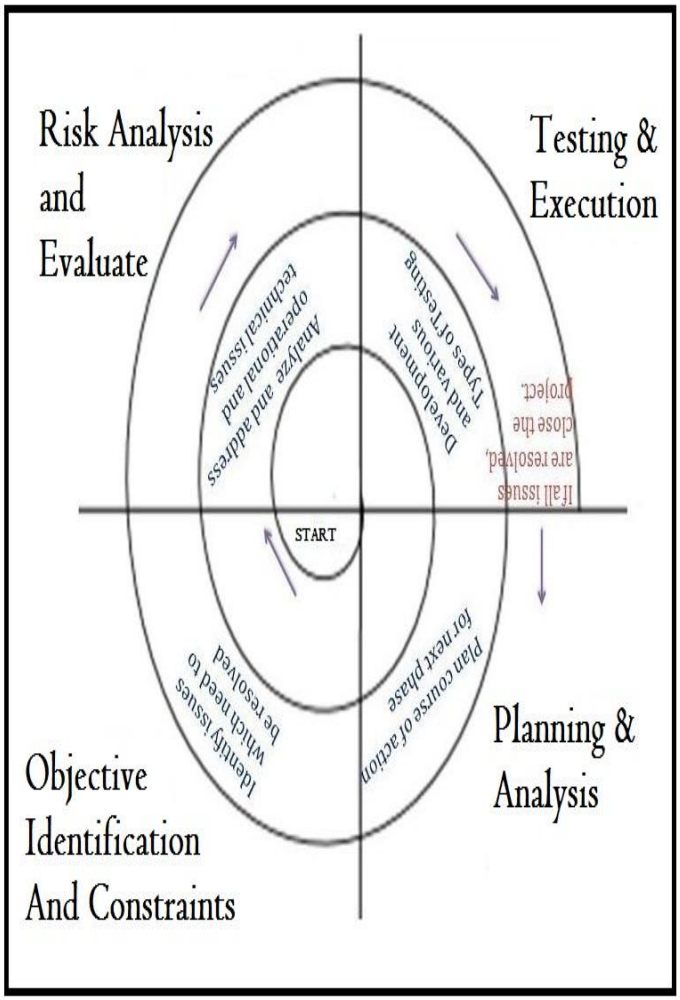
Spiral model is same as the incremental model, with more emphasis placed on risk analysis. The spiral model has four phases: Planning, Risk Analysis, Engineering and Evaluation.

***Planning Phase:*** Requirements are gathered during the planning phase. Requirements like 'BRS' that is Business Requirement Specifications' and 'SRS' that is 'System Requirement specifications'.

***Risk Analysis:*** In the **risk analysis phase,** a process is undertaken to identify risk and alternate solutions. A prototype is produced at the end of the risk analysis phase. If any risk is found during the risk analysis then alternate solutions are suggested and implemented.

***Engineering Phase:*** In this phase software is **developed,** along with testing at the end of the phase. Hence in this phase the development and testing is done.

***Evaluation phase:*** This phase allows the customer to evaluate the output of the project to date before the project continues to the next spiral.



## PROPOSED DESIGN:

We are going to develop a system which completely helps a user to take prevention from disease.

The concepts of Supervised Learning are used and Decision Tree algorithms are used for prediction according to previous history.

**Following module will be used in project**

1) ***Registration:*** user can register with his name, password, email- id, Date of Birth, Age will used.

2) ***Login:*** user can do login by entering his username and password

3) ***Details:*** It includes the details about the symptoms and disease.

4) ***Medicine:*** This module suggests appropriate medicine according to the disease.

5) ***Feedback:*** In this user will provide it's opinion about the system.

## ADVANTAGE OF PROPOSED SYSTEM:

- System is user friendly
- Appropriate medicine will provide also suggest home remedies for disease.
- Based on symptoms disease will easily identify.

## SUPERVISED LEARNING:

The main objective of supervised learning is to make a model that makes predictions based on previous history. As adaptive algorithms identify patterns in data, a computer "learns" from the observations. When exposed to more observations, the computer improves its predictive performance.

For example, suppose you want to predict whether someone will have a cold and fever within a year. You have a set of information on previous patients, including weight, age, height, blood pressure, etc. You know whether the previous patients had fever and cold within a year of their measurements. So, the problem is combining all the existing data into a model that can predict whether a new person will have a cold and fever within a year.

## DECISION TREE:

A decision tree is a decision support tool that uses a tree-like graph or model of decisions and their possible consequences, including chance event outcomes, resource costs, and utility. It is one way to an algorithm.

Decision trees are commonly used in operations research, specifically in decision analysis, to help identify a strategy most likely to reach a goal, but are also a popular tool in machine learning.

**A decision tree consists of 3 types of nodes:**

***Decision nodes*** - commonly represented by squares nodes - represented by circles

***End nodes*** - represented by triangles.

***Prototypes*** - From best prototypes were selected best concepts are used for this system.

## CONCLUSION:

The objective of this project is to give the information about the various diseases as well as various symptoms and their prevention technique .This website is an innovative and cost effective for the people .This website is user friendly so people can easily use it. Study was followed by Usability testing, where several prototypes. This system providing the beneficial information about health in our daily life.

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**Address:- Dr. Ashak Hussain Malik House No-221, Gangoo Pulwama - 192301**
**Jammu & Kashmir, India**
**Cell: 09086405302, 09906662570,**
**Ph No: 01933212815**
**Email:- nairjc5@gmail.com, nairjc@nairjc.com , info@nairjc.com**
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