

Solution

Answer for Question No.01

1. The goals for this research papers were:
 - a. To develop a rich user-friendly-interfaced Expert System that would help patient to diagnose their diseases(cold & flue, cough, ear & eye problems, fever, and Cystinosis) and suggest them an accurate prescription
 - b. To find a proper language that could represent the patient's history and current state into the knowledge base so that the Expert System might yield good results.

2. The goals were achieved by:
 - a. Making the interface of ES user-friendly such that the user may input the data without any confusion
 - b. By gathering basic information about the diseases from experts (physicians) and books. Knowledge was extracted through the interviews with the human experts.
 - c. CLIPS and JESS was used to develop the ES

3. The experimental results of the ESMDA were very good. From the hospital database the record of 100 patients having different ESMDA covered diseases were used. The accuracy of ESMDA was 91% and the accuracy of Expert Doctors was 96%.

4. Future work was to expand the number of diseases that ESMDA will cover. Furthermore, ESMDA will be available in a web version.

Answer for Question No.02

Some points for improving the proposed solution.

1. ESMDA should also suggest proper medicine after diagnosing a disease.
2. ESMDA should also suggest specialist doctors in a particular disease after diagnosing that disease.
3. ESMDA should also suggest proper diet/food for a particular disease after diagnosing that disease.
4. ESMDA should also suggest proper exercises for a particular disease after diagnosing that disease.
5. Number of ESMDA covered diseases should be expanded.
6. ESMDA should be made web based.

When proposed ESMDA will adopt all the above changes then there is a chance that efficiency of ESMDA will increase from 91% near to 96%, It is because most of the doctors suggest proper medicine but they don't suggest proper diet, exercises and other specialist doctors in a particular disease.