

ABSTRACT

EXPERT SYSTEM FOR DIAGNOSIS OF RHINITIS USING WEB-BASED FORWARD CHAINING METHOD

The development of technology and information systems that are growing rapidly as it is today, requires everyone to continue to develop knowledge so as not to be out of date. The use of technology today can be used in all fields, such as education, security, health, and so on. Expert systems in the health sector are designed and made to imitate an expert who can facilitate the work of an expert in making decisions to solve problems. In a case study conducted at the Dadi Family Hospital, Purwokerto, data were obtained from patients with a diagnosis of rhinitis, the majority of whom did not know information about the symptoms and diseases. Rhinitis is an inflammatory disease or inflammation of the nasal mucosa that is triggered by certain allergens. The increasing number of ENT diseases, especially rhinitis, is not accompanied by the number of experts. In this case, it is necessary to conduct an analysis to speed up the diagnosis process by medical personnel. Based on the case study, an information system is needed that can be used by its users as a source of information as well as a more practical consultation media. In designing this system using PHP and MySQL with research datasets obtained from hospital medical records. For the development of the system using the *waterfall* method with the *forward chaining* method as a method of searching or drawing conclusions based on existing data or facts leading to conclusions. Then in testing the system using the *black box* as a feature functionality test, as well as testing the *System Usability Scale* (SUS) as a system feasibility test, and testing the accuracy of the expert system using the *confusion matrix*. For the results of the accuracy of this expert system obtained by 93,75%.

Keywords : *Black Box, Expert System, Forward Chaining, Information System, MySQL, PHP, Rhinitis, System Usability Scale (SUS), Waterfall*