Abstract

Handling crisp and precise data in SQL is an easy process but classical data models often suffer from their incapability of representing and manipulating imprecise and uncertain information which is found in many real world applications. Since the early 1980’s, Zadeh’s fuzzy logic has been used to improve and modify various data models. This introduction of fuzzy logic in databases enhances the capability of classical models so that uncertain and imprecise information could easily be represented and manipulated. This paper proposes an algorithm with the help of which crisp values are converted into fuzzy values by calculating their membership value at the database level. The paper then uses a GUI through which the result of fuzzy queries can be obtained from the database. With the help of proposed algorithm, the calculated membership value will be stored in the database for
different predefined categories (e.g. child, young, middle age and old in case of ages). These membership values help in fetching the result of fuzzy queries from the database with the help of developed GUI (the database used here is oracle 10g but other databases can also be used). The fuzzy queries have a wider retrieved space and can be used to identify the characteristic of an individual (marks in this case).

References


Index Terms

Computer Science

Information Sciences

Keywords