Abstract

Nutrition plays an important role in the body and child development. Therefore, it is very important for parent to understand the nutritional needs of children to grow healthy and smart. If nutritional intake is not met, malnutrition can occur in children it interferes whit their growth and development process. The food recommendation system in this study is based on knowledge modeling. The focus of the research is to develop a recommendation system using ontology with Semantic Web Rule Language (SWRL) and form a knowledge base according to the guidelines proposed by Recommended Nutrient Intakes (RNI). Additionally, an Artificial Intelligence (AI) telegram chatbot named NutritionChildreBot was developed for this purpose. The recommended food menu is following the nutritional needs of children aged 7-9 years. The acquired knowledge base will be managed to provide information to users. The results of this research evaluation are in the form of recommendations for selecting foods that meet children's nutritional needs based on information obtained from reliable sources. Based on this value, the calculation of precision, memory, and F_Score obtained is 97,9% of the accuracy of the results recommended by the system.

Keywords: Recommender System, Ontology, Food Selection, Child Nutrition.