Abstract: Coronary heart disease is one of the leading causes of death. Knowledge of dietary patterns and proper food selection is an effort to address the risk and support coronary heart disease's healing process. Therefore, this study developed a food menu recommender system as a reference for patients with coronary heart disease. The recommender system is crucial in creating a proper dietary pattern for managing personalized meal plans. The system calculates the required nutritional needs of users. Ontology is used to represent knowledge about nutrition data and food intake. The ontology base with Semantic Web Rule Language (SWRL) enables the system to identify the most suitable foods for patients with coronary heart disease. We use SWRL rules to generate recommendation conclusions based on the existing ontology. Using this language enhances the descriptive logic capabilities, as the rules can overcome the limitations of the ontology language. Therefore, the system is built to find food menu options that match the required nutrition for patients. The nutritionist knowledge will be used to measure the system's performance compared to the recommendations made by nutritionists. From the user data sample, 150 recommended food menu data were obtained. The validation performance results obtained a precision 0.893, recall 1, and F_Score 94.3%.

Keywords: recommender system; coronary heart disease; ontology; Semantic Web Rule Language; chatbot