ABSTRACT

World Health Organization (WHO) data identify that about 13% of the world's population are obese. Obesity may contribute a greater risk for health problems such as type 2 diabetes, heart diseases, high blood pressure, arthritis, sleep apnea, some type of cancer and stroke. Calorie consumed and expended for weight loss is needed to manage ideal body mass . Dietary information for overweight and obesity are spread out abundantly, but some information is incredible and unstructured. Therefore, in this study accumulated for developing a system with consulting an expert for validating the information. This research is to recommend dietary and suggest physical activity for overweight and obese people based on ontology. The result of this study was analyzed using formal concept analysis (FCA) which is represented in a graph. The evaluation of the study has three parts. First, it is checked the consistency and correctness of ontology with pellet reasoner. Second, it is reviewed by experts for validating the rules and formulation of the dietary and recommendation nutrition. Third, is the system is reviewed by participantsand it indicates that the system has well represented satisfaction with score 4.3 out of 5.0.

Keywords: ontology, dietary nutrition, overweight and obesity, recommendation system.