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# VIRTUAL COOK 2.0: A USER INTERACTIVE WEB BASED SMART RECIPE SEARCH ENGINE IN FLASK FRAMEWORK WITH JQUERY AND AJAX

In this research we developed a web program called The Virtual Cook that can help people to get recipes of dishes, provided by limited ingredients. In addition, this program helps users to store their preferred dishes on their personal dashboard where they can post their reviews and images of dishes. Here we propose a formal model which allows us to effectively represent and search for recipes in online environments. The proposed model is an entity-relationship model that provides relevant entity types and properties, formalized as an ontology. The important aspects of the recipe model are identified by means of competency questions. Our model advances the state of the art in that it supports essential queries that are typically not supported by websites and existing reference data models.

Virtual Cook offers artificial intelligence powered digital intelligence supported by Web 2.0 which provides a full-featured Model-View-Controller framework under client-server architecture. This research extensively conducted software analysis and design processes including requirements specification, use-cases, system architecture, user interface prototype, and entity-relationship model. Technologies used to develop the system include python, MySQL, Flask, HTML, jQuery and Ajax. Flask framework enhances scalability, speed, system functionality, maintainability, security, and portability.

Virtual Cook offers a user interactive web 2.0 based smart recipe search engine which help users to find dishes from limited ingredients. We exploit a ranking algorithm to sort the dishes based on users rating. A comprehensive list of tasks to develop the Virtual Cook web 2.0 based recipe search engine includes Web engineering, Web design, Web content development, client-side/server-side scripting, Web server, network security configuration, and e - commerce services. We illustrate the methodology followed, the developed model, and the evaluation we conducted.

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