

# Rule Based Expert System Application for Food Recognizer

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## Introduction

Food Recognizer is an expert system . By this system anyone can find the food name. In this system, user have to interact with the system and give some inputs. The system will response according to user's input.

## Problem Statement

The main purpose of this project is to create a Expert System to replace the manual system for recognizing some dishes . The system will provide a comfortable environment where user can interact with the system easily . It provides instant help for recognizing food that is accurate, and error free. In the manual system , a person needs to think and decides the food name. Sometimes, a person may find it difficult to guess the food name as there are so many foods. Moreover some foods look same but taste different.

## Aims

The aims of this expert system are given below:

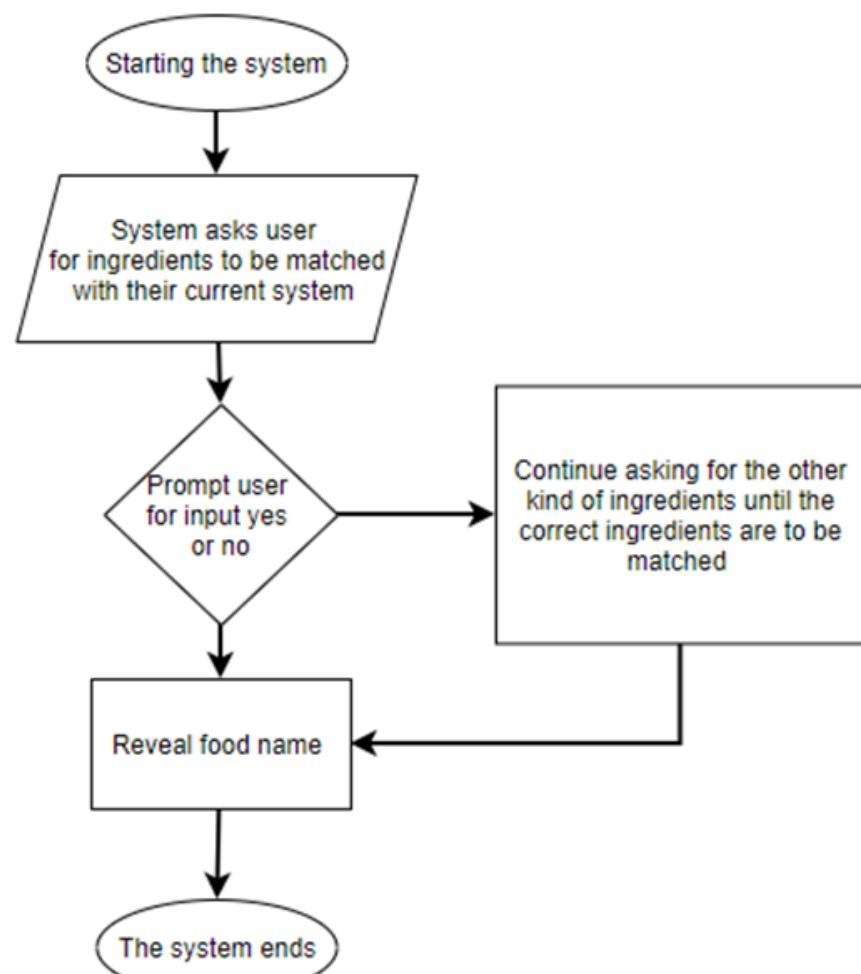
1. Revealing food name according to user's input.
2. Giving an automatic environment.
3. Giving error free output.

## Objectives

The objective of this expert system is to reveal food name according to user's input.

## Design

Design describe how the expert system react according to commands given to prolog environment for identifying the food according to user's input.



## Core Components

This expert system has been typically designed to provide capabilities similar to those of a human expert when performing a task. This expert system usually has two core components: Knowledge base: This component consists of data, facts and rules for a certain topic, industry or skill, usually equivalent to that of a human expert. Interference engine: This component uses the facts and rules in the knowledge base to find and learn new knowledge or patterns.

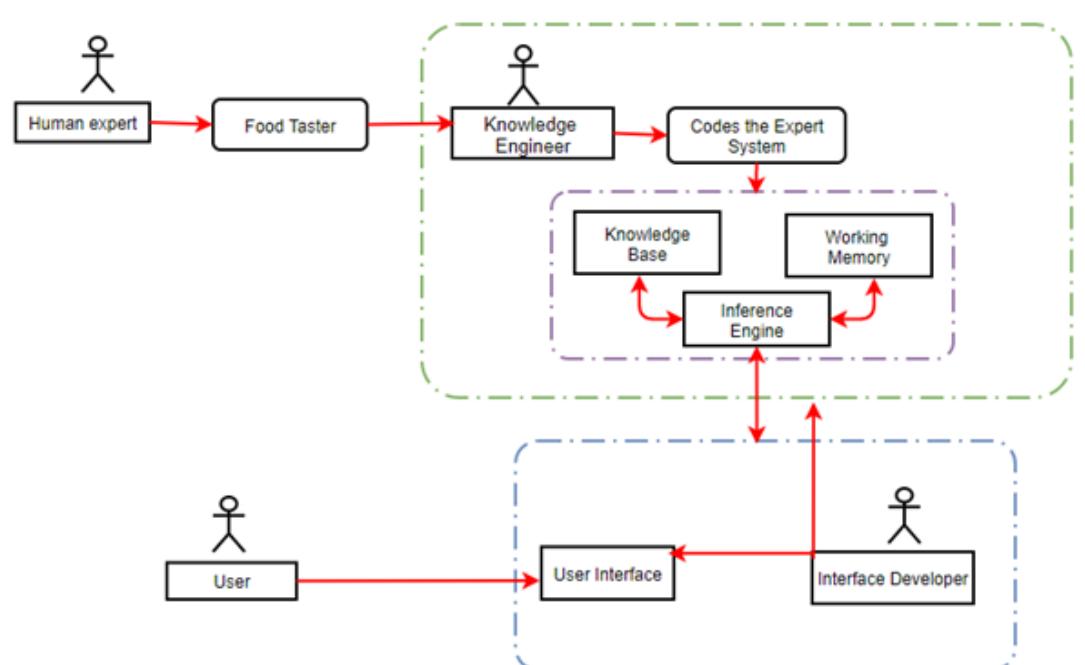
## Event List

The first matter that we should do in designing the system is making a list of every existing event.

The events are:

- a) We enter any data of indication that related to the food.
- b) The application does the analysis based on the user's data. The results of analysis will determine the indication list ..
- c) Admin will cultivate the data on the system.
- d) Admin obtains information from the data at the system.
- e) The experts take over management of the system.
- f) The experts get information from data management at the system.

## System Architecture



## Conclusion

The prolog program that I built is very simple to use and efficient. It's pretty accurate too. This system can verify the food name. This expert system has been typically designed to provide capabilities similar to those of a human expert when performing a task. The program asks a few yes/no questions to the user to note down which ingredients the user is watching. Then after knowing all the indications that the user is watching the expert system searches up on its knowledge base and then generates the most probable answer i.e. in this case the accurate food name . It is to be noted that the knowledge base is also accompanied with an interference base. Thus the expert system is more enriched and learns from experience bit by bit.

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