

Lab Task (Prolog)

Dec 2024

Name: Khaled Mohamed Elsayed Gadelhaq

Name (Arabic): خالد محمد السيد جادالحق

Department: Computer Science 3rd year student

Section: 2

Food Recommendation System

This is a simple food recommendation system built using **Prolog**. It works by matching people's favorite *cuisines* with dishes that belong to those *cuisines*. Basically, you tell the system what type of food you like, and it gives you suggestions of dishes to try.

For example, if Amr loves Italian and Chinese food, the system will recommend things like pizza, pasta, fried rice, or spring rolls. On the other hand, if Khaled is into Egyptian food, he'll get suggestions like Koshare or Falafel. It's like having a food buddy who knows your taste! 😊

Code

```
% Food Recommendation System
```

```
% Define Domains
```

```
domains
```

```
    person = symbol
```

```
    cuisine = symbol
```

```
    dish = symbol
```

```
% Define Predicates
```

```
predicates
```

```
    person(symbol, symbol)
```

```
    dish(symbol, symbol)
```

```
    recommend_dish(symbol, symbol)
```

```
% Define facts about individuals and their cuisine preferences
```

```
clauses
```

```
    person(ali, italian).
```

```
    person(ali, chinese).
```

```
    person(khaled, egyptian).
```

```
    person(khaled, indian).
```

person(sara, italian).

person(sara, mexican).

% Define Facts about dishes and their cuisines

dish("Pizza", italian).

dish("Pasta", italian).

dish("Tacos", mexican).

dish("Biryani", indian).

dish("Spring Rolls", chinese).

dish("Fried Rice", chinese).

dish("Koshare", egyptian).

dish("Falafel", egyptian).

% Rule for recommending dishes

recommend_dish(Person, Dish) :-

 person(Person, Cuisine),

 dish(Dish, Cuisine).

Testing

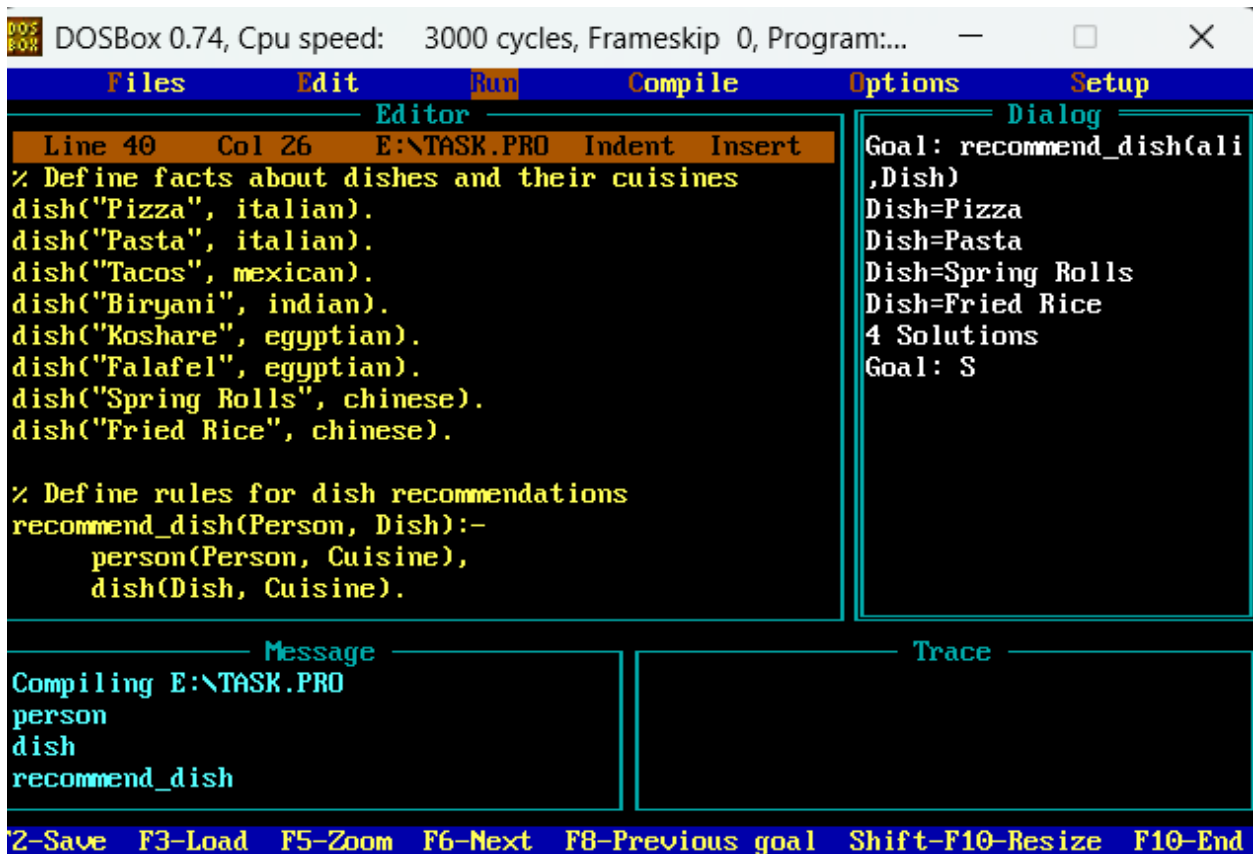
Recommend a dish for “Ali”:

```prolog code

Recommend\_dish(ali, Dish)

```

Screenshot:



Recommend Italian dishes:

```prolog code

dish(Dish, Italian)

```

Screenshot:

DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program:...

Files	Edit	Run	Compile	Options	Setup
Editor					
Line 40	Col 26	E:\TASK.PRO	Indent	Insert	
% Define facts about dishes and their cuisines					
dish("Pizza", italian).					
dish("Pasta", italian).					
dish("Tacos", mexican).					
dish("Biryani", indian).					
dish("Koshare", egyptian).					
dish("Falafel", egyptian).					
dish("Spring Rolls", chinese).					
dish("Fried Rice", chinese).					
% Define rules for dish recommendations					
recommend_dish(Person, Dish):-					
person(Person, Cuisine),					
dish(Dish, Cuisine).					
Dialog					
Dish=Spring Rolls					
Dish=Fried Rice					
4 Solutions					
Goal: recommend_dish(khaled, Dish)					
Dish=Koshare					
Dish=Falafel					
Dish=Biryani					
3 Solutions					
Goal: dish(Dish, italian)					
Dish=Pizza					
Dish=Pasta					
2 Solutions					
Goal: S_					
Message			Trace		
Compiling E:\TASK.PRO					
person					
dish					
recommend_dish					
2-Save F3-Load F5-Zoom F6-Next F8-Previous goal Shift-F10-Resize F10-End					

THAT'S IT FOLKS, THANKS 😊