

AI Project

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IDEA DESCRIPTION

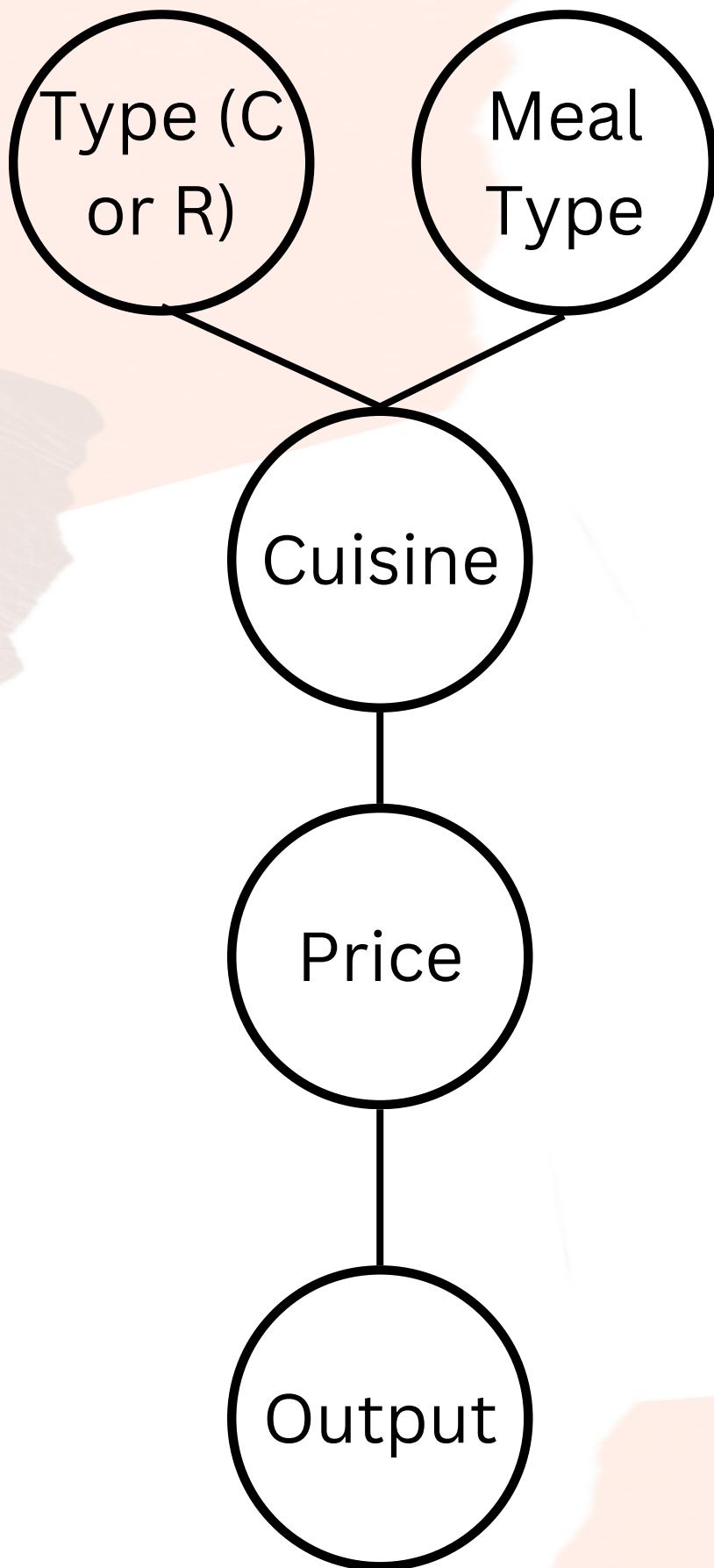
our idea is an expert system to suggest Restaurants and coffees based on some questions that the expert system asks the user.

Ex: the user want to go a restaurant so the Expert will ask the user about the meal type and cuisine type and the budget then the expert system will suggest the best choice.

Table

Type	Meal Type	Cusine	Price	Output
Resturant	BreakFast	Modren	High	Bendict
Resturant	BreakFast	Modren	Low	Magam
Resturant	BreakFast	Local	High	F6orfaris
Resturant	BreakFast	local	low	Bin Saleem
Resturant	Dinner and Lunch	Italy	high	Meating
Resturant	Dinner and Lunch	Italy	low	Pizza hut
Resturant	Dinner and Lunch	Indian	high	Zika
Resturant	Dinner and Lunch	Indian	low	Marhaba
Resturant	Dinner and Lunch	International	high	Voi
Resturant	Dinner and Lunch	International	low	Buaffalo
Resturant	Dinner and Lunch	Chinese	high	Sushia
Resturant	Dinner and Lunch	Chinese	low	Baytoti
Cafe	Non-specialized	false	high	Starbucks
Cafe	specialized	false	high	Dokkan
Cafe	specialized	false	low	1/2M
Cafe	Non-specialized	false	low	Bon

Graph



Questions

Restaurent or Cafe ?

What is the meal type ?

What is the cuisine ?

What is your budget ?

Speciality cafe or not ?

Facts

type(restaurant).

type(cafe).

mealType(lunch).

mealType(brakfast).

mealType(dinner).

mealType(spaecilized).

mealType(nonSpecilized).

cuisine(modern).

cuisine(local).

cuisine(italy).

cuisine(indian).

cuisine(international).

cuisine(chinese).

cuisine(noType).

price(low).

price(high).

Facts

restaurant(voi).
restaurant(buaffalo).
restaurant(f6orFaris).
restaurant(maqam).
restaurant(meating).
restaurant(binSaleem).
restaurant(pizzaHut).
restaurant(zika).
restaurant(marhaba).
restaurant(benedict).
restaurant(sushia).
restaurant(baytoti).

cafe(starbucks).
cafe(bon).
cafe(dokkan).
cafe(halfMillion).

Rules

```
appropriate('benedict',MealType, Cuisine,Price) :-  
    MealType = 'b',  
    Cuisine=modern,  
    Price=high,!.
```

```
appropriate('Maqam',MealType, Cuisine,Price) :-  
    MealType = 'b',  
    Cuisine=modern,  
    Price=low,!.
```

```
appropriate('f6orFaris',MealType, Cuisine,Price) :-  
    MealType = 'b',  
    Cuisine=local,  
    Price=high,!.
```

```
appropriate('binSaleem',MealType, Cuisine,Price) :-  
    MealType = 'b',  
    Cuisine=local,  
    Price=low,!.
```

Rules

appropriate('meating',MealType, Cuisine,Price) :-

(MealType = ('l'); MealType = ('d')),
Cuisine=italy,
Price=high,!.

appropriate('pizzaHut',MealType, Cuisine,Price) :-

(MealType = ('l'); MealType = ('d')),
Cuisine=italy,
Price=low,!.

appropriate('marhaba',MealType, Cuisine,Price) :-

(MealType = ('l'); MealType = ('d')),
Cuisine=indian,
Price=low,!.

appropriate('buaffalo',MealType, Cuisine,Price) :-

(MealType = ('l'); MealType = ('d')),
Cuisine=international,
Price=low,!.

Rules

appropriate('zika',MealType, Cuisine,Price) :-

(MealType = ('l'); MealType = ('d')),
Cuisine=indian,
Price=high,!.

appropriate('voi',MealType, Cuisine,Price) :-

(MealType = ('l'); MealType = ('d')),
Cuisine=international,
Price=high,!.

appropriate('sushia',MealType, Cuisine,Price) :-

(MealType = ('l'); MealType = ('d')),
Cuisine=chinese,
Price=high,!.

appropriate('baytoti',MealType, Cuisine,Price) :-

(MealType = ('l'); MealType = ('d')),
Cuisine=chinese,
Price=low,!.

Rules

appropriate('starbucks',Specilaty,Price):-
Specilaty= non_Specialized ; Specilaty= n,
Price=high,!.

appropriate('dokkan',Specilaty,Price):-
Specilaty= specialized ; Specilaty= s,
Price= high,!.

appropriate('halfmillion',Specilaty,Price):-
Specilaty= specialized ; Specilaty= s,
Price=low,!.

appropriate('bon',Specilaty,Price):-
Specilaty= non_Specialized ; Specilaty= n,
Price=low,!.

Rules

```
findAppropriateCafe(C):-  
write('do you prefer a specialized (s) or non_Specialized (n)  
coffee?'), nl,  
read(Specilaty),nl,  
write( 'do you prefer a high or low price?' ),nl,  
read(Price) , nl,  
appropriate(C,Specilaty,Price).
```

```
findAppropriateRestaurant(R):-  
write('breakfast (b) or lunch (l) or dinner (d)?'), nl,  
read(MealType),nl,  
mt(MealType),  
read( Cuisine) , nl,  
write( 'do you prefer a high or low price?' ),nl,  
read(Price) , nl,  
appropriate(R,MealType,Cuisine,Price).
```

Rules

go:-

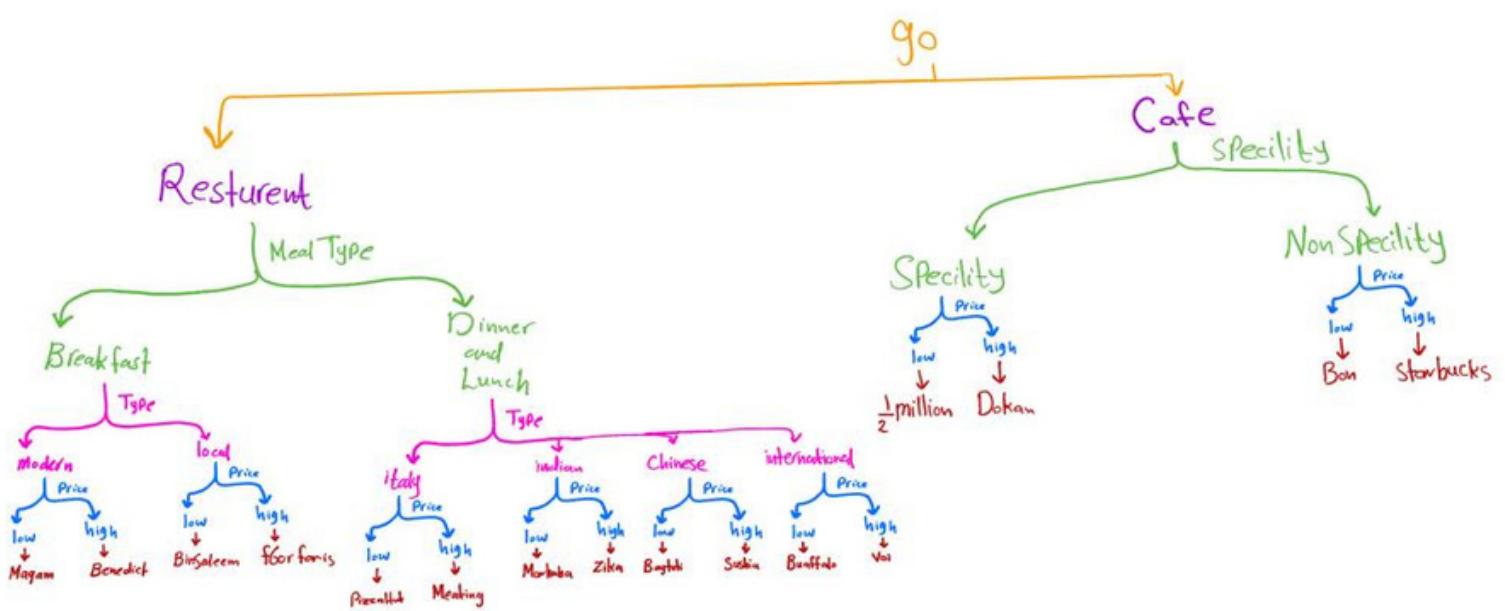
```
write(" HI, Welcome to our Expert system ' Restaurants &
      Cafe Guide ' "),nl,nl,
write("We will suggest you a restaurant or café depending
      on your preferences"),nl,
nl, write("Please Enter (r) for Restaurant or (c) for Cafe"),
      read(Respnce),
      choice(Respnce,A),
      write("you are looking for"),nl,
      write(A),nl,
      write("I hope you find what you like :) ").
```

```
choice(Respnce,A):-  
( Respnce == r), findAppropriateRestaurant(A).
```

```
choice(Respnce,A):-  
( Respnce == c), findAppropriateCafe(A).
```

```
mt(MealType):-  
(MealType == 'b'),write('cuisine type? modern or local');  
 (MealType == 'd'),write('cuisine type?  
 italy,indian,international, or chinese');  
 (MealType == 'l'),write('cuisine type?
```

Questions Tree:



Output

go.

Hi, Welcome to our Expert system ' Restaurants & Cafe Guide '

We will suggest you a restaurant or café depending on your preferences

Please Enter (r) for Restaurant or (c) for Cafe

breakfast (b) or lunch (l) or dinner (d)?

cuisine type? modern or local

do you prefer a high or low price?

you are looking for

benedict

I hope you find what you like :)

1

?- go.

Examples ▾ History ▾ Solutions ▾ table results **Run!**

go.

Hi, Welcome to our Expert system ' Restaurants & Cafe Guide '

We will suggest you a restaurant or café depending on your preferences

Please Enter (r) for Restaurant or (c) for Cafe

breakfast (b) or lunch (l) or dinner (d)?

cuisine type? modern or local

do you prefer a high or low price?

you are looking for

binSaleem

I hope you find what you like :)

1

?- go.

Examples ▾ History ▾ Solutions ▾ table results **Run!**

Output

go.

Hi, Welcome to our Expert system ' Restaurants & Cafe Guide '

We will suggest you a restaurant or café depending on your preferences

Please Enter (r) for Restaurant or (c) for Cafe

breakfast (b) or lunch (l) or dinner (d)?

cuisine type? italy,indian,international, or chinese

do you prefer a high or low price?

you are looking for

meating

I hope you find what you like :)

true

?- go.

Examples▲ History▲ Solutions▲ table results **Run!**

go.

Hi, Welcome to our Expert system ' Restaurants & Cafe Guide '

We will suggest you a restaurant or café depending on your preferences

Please Enter (r) for Restaurant or (c) for Cafe

breakfast (b) or lunch (l) or dinner (d)?

cuisine type? italy,indian,international, or chinese

do you prefer a high or low price?

you are looking for

sushia

I hope you find what you like :)

true

?- go.

Examples▲ History▲ Solutions▲ table results **Run!**

Output

go.

Hi, Welcome to our Expert system ' Restaurants & Cafe Guide '

We will suggest you a restaurant or café depending on your preferences

Please Enter (r) for Restaurant or (c) for Cafe

do you prefer a specialized (s) or non_Specialized (n) coffee?

do you prefer a high or low price?

you are looking for
bon

I hope you find what you like :)

true

?- go.

Examples▲ History▲ Solutions▲ table results **Run!**

go.

Hi, Welcome to our Expert system ' Restaurants & Cafe Guide '

We will suggest you a restaurant or café depending on your preferences

Please Enter (r) for Restaurant or (c) for Cafe

do you prefer a specialized (s) or non_Specialized (n) coffee?

do you prefer a high or low price?

you are looking for
dokkan

I hope you find what you like :)

true

?- go.

Examples▲ History▲ Solutions▲ table results **Run!**