King Abdulaziz University

Faculty of Computing and Information Technology

Computer Science Department

Car to Travel System

To car evaluation

Artificial Intelligence (CPCS 331)

S2 1443H – Spring 2022

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Section: AAR

Task Assignment

Student Name	The Task	The Percentage
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Sara	Introduction	100 %
Shaikah	Body Source code	100 %
Shaima	Screenshot of the code	100 %

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1. Introduction

1.1 The purpose of the expert system

This program will help the user to know if their car is suitable for traveling or is not suitable by asking questions regarding the car they have and/or use. The system will ask the user various kind of questions about the car ranging from the safety measures of the car to the car comfort and will evaluate the car based on the user answers. There will be different output of the evaluations to the user such as "bad option for traveling", "acceptable", "perfect for long distance" and more that will help the user decide to change things or not. This system is there to make sure and guide the user to a perfect traveling experience

1.2 The users

People who are interested in traveling by car.

1.3 The expert

The system displays the evaluation of the car and find out whether it is suitable for travel or not based on the user's responses.

1.4 The resources that will be used

To find the evaluation, we used one resource that helped us to find the best evaluation of the car:

- We asked an expert person

2. Body

2.1 A list of rules

Rule 1: If the user responses/answers are limited to:

- Does not own any car or does not use any car

Then the answer will be "The system can't help you"

Part1: Own or use a car + Travel time > 6-8 hours + there are slopes or rough terrain

Rule 2: If the user responses/answers are limited to:

- Own a car or use a car
- Travel time more than 6-8 hours

- Travel route contain slopes or rough terrain
- The car has no four- wheel drive

Then the evaluation will be "Your car is a bad option for travel, not suitable for slopes and rough terrain"

Rule 3: If the user responses/answers are limited to:

- Own a car or use a car
- Travel time more than 6-8 hours
- Travel route contain slopes or rough terrain
- The car has four- wheel drive
- The car has no manual gear

Then the evaluation will be "Your car is not a very bad option, but it is difficult to control"

Rule 4: If the user responses/answers are limited to:

- Own a car or use a car
- Travel time more than 6-8 hours
- Travel route contain slopes or rough terrain
- The car has four- wheel drive
- The car has manual gear
- The car cylinder is not more than or equal 6

Then the evaluation will be "Your car is not practical for travel, preferably cylinder more than or equal 6"

Rule 5: If the user responses/answers are limited to:

- Own a car or use a car
- Travel time more than 6-8 hours
- Travel route contain slopes or rough terrain
- The car has four- wheel drive
- The car has manual gear
- The car cylinder is more than or equal 6
- The car has no fuel economy system

Then the evaluation will be "Your car may be impractical to travel for long distances because it does not save the fuel"

Rule 6: If the user responses/answers are limited to:

- Own a car or use a car
- Travel time more than 6-8 hours
- Travel route contain slopes or rough terrain
- The car has four- wheel drive
- The car has manual gear
- The car cylinder is more than or equal 6
- The car has fuel economy system
- The air pressure of the wheels has not been checked and the maintenance has not been done in the last 48 hours

Then the evaluation will be "Your car is not suitable, it was not well prepared for travel"

Rule 7: If the user responses/answers are limited to:

- Own a car or use a car
- Travel time more than 6-8 hours
- Travel route contain slopes or rough terrain
- The car has four- wheel drive
- The car has manual gear
- The car cylinder is more than or equal 6
- The car has fuel economy system
- The air pressure of the wheels has been checked and the maintenance has been done in the last 48 hours
- The car has no safety system and a first aid kit

Then the evaluation will be "Your car is a bad and unacceptable option for travel, having a safety system is very important"

Rule 8: If the user responses/answers are limited to:

If the user responses/answers are limited to:

- Own a car or use a car
- Travel time more than 6-8 hours
- Travel route contain slopes or rough terrain
- The car has four- wheel drive
- The car has manual gear

- The car cylinder is more than or equal 6
- The car has fuel economy system
- The air pressure of the wheels has been checked and the maintenance has been done in the last 48 hours
- The car has safety system and a first aid kit
- The seats are not comfortable

Then the evaluation will be "Your car as performance and as a driving is suitable, but travelling in this car can be tiring because the seats are not comfortable"

Rule 9: If the user responses/answers are limited to:

- Own a car or use a car
- Travel time more than 6-8 hours
- Travel route contain slopes or rough terrain
- The car has four- wheel drive
- The car has manual gear
- The car cylinder is more than or equal 6
- The car has fuel economy system
- The air pressure of the wheels has been checked and the maintenance has been done in the last 48 hours
- The car has safety system and a first aid kit
- The seats are comfortable
- The car does not contain a fridge

Then the evaluation will be "Your car is an acceptable option for travel, no having a fridge does make it unsuitable car"

Rule 10: If the user responses/answers are limited to:

- Own a car or use a car
- Travel time more than 6-8 hours
- Travel route contain slopes or rough terrain
- The car has four- wheel drive
- The car has manual gear
- The car cylinder is more than or equal 6
- The car has fuel economy system
- The air pressure of the wheels has been checked and the maintenance has been done in the last 48 hours
- The car has safety and security systems

- The seats are comfortable
- The car contains a fridge

Then the evaluation will be "Your car is a perfect and suitable car for travel for more than 6-8 hours"

Part2: Own or use a car + Travel time > 6-8 hours + No slopes or rough terrain

Rule 11: If the user responses/answers are limited to:

- Own a car or use a car
- Travel time more than 6-8 hours
- Travel route does not contain slopes or rough terrain
- The car has no automatic gear

Then the evaluation will be "Your car is an acceptable option for travel, but it is better if the gear's car is automatic"

Rule 12: If the user responses/answers are limited to:

- Own a car or use a car
- Travel time more than 6-8 hours
- Travel route does not contain slopes or rough terrain
- The car has an automatic gear
- The car cylinder is not more than or equal 6

Then the evaluation will be "Your car is not practical for travel, preferably cylinder more than or equal 6"

Rule 13: If the user responses/answers are limited to:

- Own a car or use a car
- Travel time more than 6-8 hours
- Travel route does not contain slopes or rough terrain
- The car has an automatic gear
- The car cylinder is more than or equal 6
- The car has no fuel economy system

Then the evaluation will be "Your car may be impractical to travel for long distances because it does not save the fuel"

Rule 14: If the user responses/answers are limited to:

- Own a car or use a car
- Travel time more than 6-8 hours
- Travel route does not contain slopes or rough terrain
- The car has automatic gear
- The car cylinder is more than or equal 6
- The car has fuel economy system
- The air pressure of the wheels has not been checked and the maintenance has not been done in the last 48 hours

Then the evaluation will be "Your car is not suitable, it was not well prepared for travel"

Rule 15: If the user responses/answers are limited to:

- Own a car or use a car
- Travel time more than 6-8 hours
- Travel route does not contain slopes or rough terrain
- The car has an automatic gear
- The car cylinder is more than or equal 6
- The car has fuel economy system
- The air pressure of the wheels has been checked and the maintenance has been done in the last 48 hours
- The car has no safety system and a first aid kit

Then the evaluation will be "Your car is a bad and unacceptable option for travel, having a safety system is very important"

Rule 16: If the user responses/answers are limited to:

- Own a car or use a car
- Travel time more than 6-8 hours
- Travel route does not contain slopes or rough terrain
- The car has an automatic gear
- The car cylinder is more than or equal 6
- The car has fuel economy system
- The air pressure of the wheels has been checked and the maintenance has been done in the last 48 hours
- The car has safety system and a first aid kit

- The seats are not comfortable

Then the evaluation will be "Your car as performance and as a driving is suitable, but travelling in this car can be tiring because the seats are not comfortable"

Rule 17: If the user responses/answers are limited to:

- Own a car or use a car
- Travel time more than 6-8 hours
- Travel route does not contain slopes or rough terrain
- The car has an automatic gear
- The car cylinder is more than or equal 6
- The car has fuel economy system
- The air pressure of the wheels has been checked and the maintenance has been done in the last 48 hours
- The car has safety system and a first aid kit
- The seats are comfortable
- The car does not contain a fridge

Then the evaluation will be "Your car is an acceptable option for travel, no having a fridge does make it unsuitable car"

Rule 18: If the user responses/answers are limited to:

- Own a car or use a car
- Travel time more than 6-8 hours
- Travel route does not contain slopes or rough terrain
- The car has an automatic gear
- The car cylinder is more than or equal 6
- The car has fuel economy system
- The air pressure of the wheels has been checked and the maintenance has been done in the last 48 hours
- The car has safety system and a first aid kit
- The seats are comfortable
- The car contains a fridge

Then the evaluation will be "Your car is a perfect option and suitable for travel for long distances with roads without slopes and rough terrain"

Rule 19: If the user responses/answers are limited to:

- Own a car or use a car
- Travel time is not more than 6-8 hours
- The air pressure of the wheels has not been checked and the maintenance has not been done in the last 48 hours

Then the evaluation will be "Your car is not suitable, it was not well prepared for travel"

Rule 20: If the user responses/answers are limited to:

- Own a car or use a car
- Travel time is not more than 6-8 hours
- The air pressure of the wheels has been checked and the maintenance has been done in the last 48 hours
- The car has no safety system and a first aid kit

Then the evaluation will be "Your car is a bad option for travel, because it is not a safety car"

Rule 21: If the user responses/answers are limited to:

- Own a car or use a car
- Travel time is not more than 6-8 hours
- The air pressure of the wheels has been checked and the maintenance has been done in the last 48 hours
- The car has safety system and a first aid kit
- The seats are not comfortable

Then the evaluation will be "Your car is acceptable option for travel, but it is not useful"

Rule 22: If the user responses/answers are limited to:

- Own a car or use a car
- Travel time is not more than 6-8 hours
- The air pressure of the wheels has been checked and the maintenance has been done in the last 48 hours
- The car has safety system and a first aid kit
- The seats are comfortable

Then the evaluation will be "Your car is suitable and a perfect option for travel"

2.2 The technique used to acquire knowledge from the system

- Read from user
- Recursion
- Backtracking

2.3 The system's flowchart
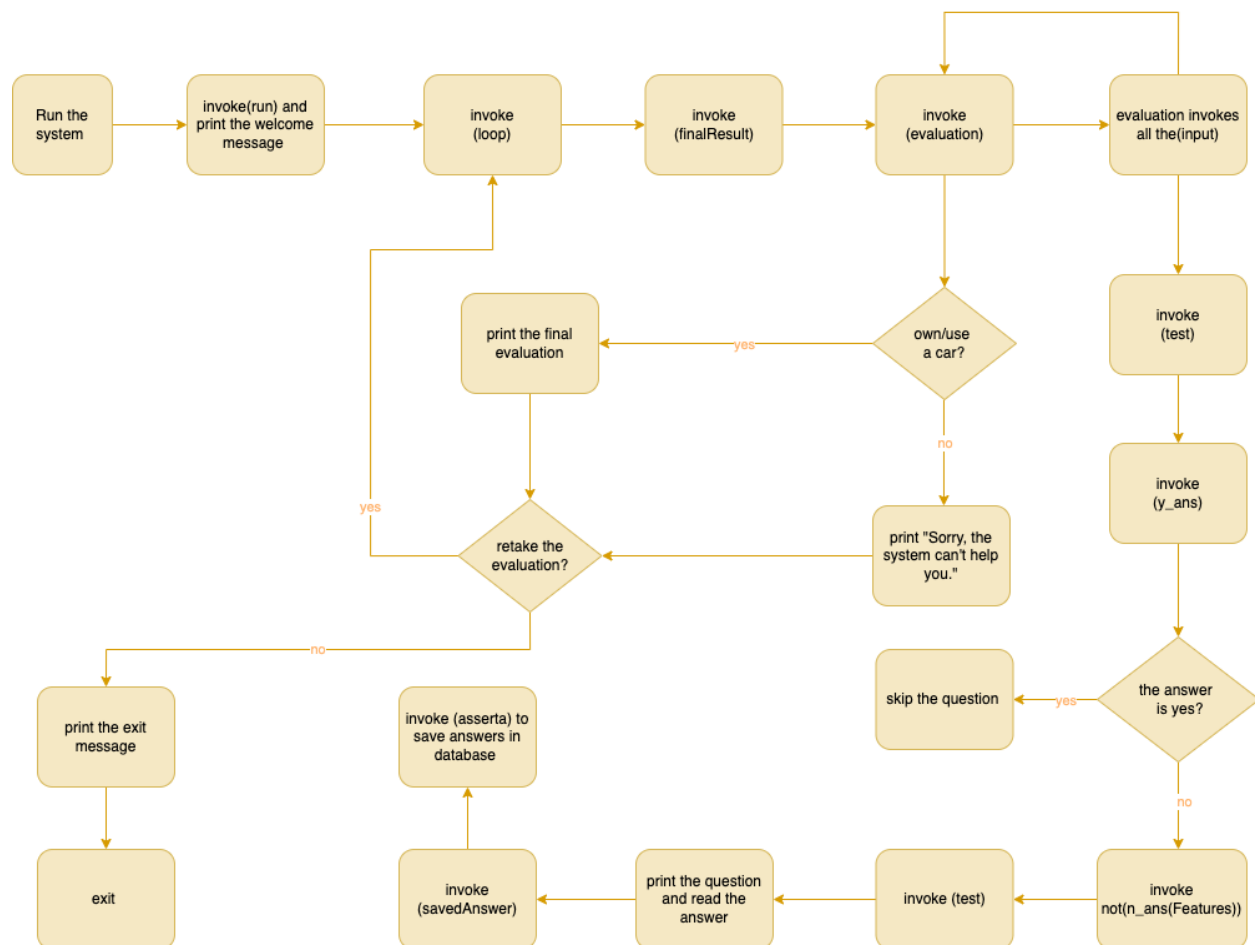
2.4 Knowledge base

Here are all the procedures in our system with explanation:

procedure	Explanation
Goal ()	This procedure is ending the main's implementation by reaching the desired goal.
Run ()	This procedure is used to print welcome messages to users and to start a loop.
Loop ()	This procedure is used to ask the user if they want to use the system again and calling the finalResult procedure.
finalResult ()	This procedure is used to inform the user the evaluation for their car, as well as invoking the evaluation procedure
Test ()	this procedure is used to give the next questions based on answers.
Evaluation ()	This procedure is used when we reached the final evaluation and print it to the user
Check ()	This procedure is used to check the answer whether it's yes or no then provide the next suitable question and also invoke the test procedure
Input()	This procedure is used to ask the user the Questions and then invokes Check procedure to provide the evaluation.
savedAnswer()	This procedure is used to take the answer from the user and enter it into the database as facts by invoking the built-in predicate (asserta).
clearYes()	The procedure is used to clear all yes answers from the database by invoking (retract) the built-in predicate with retract(y ans(_)).
clearNo()	The procedure is used to clear all No answers from the database by invoking (retract) the built-in predicate with retract(n ans(_)).

3. References

- Russell, S., & Norvig, P. (2021). Artificial Intelligence: A Modern Approach (2-downloads) (Pearson Series in Artifical Intelligence) (4th ed.). Pearson.

- Visual Prolog Language Tutorial. (n.d.). Visual Prolog. http://www.aistudy.co.kr/program/prolog/visual_prolog/visual_prolog_tutor.htm

4. Appendices

4.1 Source code

```
%Group 1
% Lujain Alsefri
% Sara Alahmari
% Shaikah Alroubaian
% Shaima Bashammakh
% -------------------------------Start main method----------------------------------
------

implement main
    open core

%-------------------------------Domain Section -----------------------------------
---
domains
%types of the variables
%string variable to store the finalResult evaluation
    eval = string.
    %variable for all the features of our system
    features =
        own_a_car; travel_time; travel_route; four_wheel; manual_gear; cylinder; fu
el_economy; maintenance; safety; seats_comfortable; fridge; automatic_gear.
    %variable for the type of the questions of our system
    question = symbol.

%-------------------------------------Facts-----------------------------------------
class facts
%general form of the facts in our system : Yes and No answer.
    y_ans : (features).
    n_ans : (features).
%-------------------------------Predicates--------------------------------------

class predicates
%the general form of all rule in our system
    finalResult : ().
    loop : ().
    evaluation : (eval) nondeterm anyflow.
    test : (question, features) determ.
    check : (question, features) determ.
    input : (features) determ.
    savedAnswer : (features, string) determ.
    clearYes : ().
    clearNo : ().
```

```
%----------------------------------Clauses----------------------------------------

clauses
%run procedure to excute the queries
   run() :-
      % printing to the user the first messages
      console::init(),
      stdIo::write("\n--------------------------------------------------------"),
      stdIo::write("\nWelcome to 'Car to Travel' Evaluation System!"),
      stdIo::write("\n--------------------------------------------------------"),
      stdIo::write("\nPlease answer the following questions with yes or no (y/n).\n"
),
      loop().
%--------------------------------------------------------------------------------
%procedure like loop to ask if the user want to use the system again
   loop() :-
      finalResult(),
      stdIo::write("\n "),
      stdIo::write("\n   Do you want to use the car evaluation system again?"),
      Ans = stdio::readLine(),
      Ans >< "n",
      !,
      clearYes(),
      clearNo(),
      loop().

%--------------------------------------------------------------------------------
%printing the end message to the user
   loop() :-
      stdIo::write("\n   *** Thank you for using our system *** \n").
%--------------------------------------------------------------------------------
%printing the evaluation according to the user input
   finalResult() :-
      evaluation(Eval),
      !,
      stdIo::write("\n", Eval).
%--------------------------------------------------------------------------------
%Rule1: the user does not own any car or does not use any car
   finalResult() :-
      stdIo::write("\n   Sorry, the system can't help you.").
      %********************************
      % check the users answer then ask the user the next question
   check(_, Features) :-
      y_ans(Features),
```

```prolog
        !.

    check(Question, Features) :-
        not(n_ans(Features)),
        test(Question, Features).

%asking the user the next question
    test(Question, Features) :-
        stdIo::write(Question),
        Ans = stdio::readLine(),
        savedAnswer(Features, Ans),
        Ans = "y".

%save user's answer
    savedAnswer(Features, "y") :-
        asserta(y_ans(Features)).
    savedAnswer(Features, "n") :-
        asserta(n_ans(Features)).

%clear all answers from the database to take the answers for the questions again
    clearYes() :-
        retract(y_ans(_)),
        fail.
    clearYes().
    clearNo() :-
        retract(n_ans(_)),
        fail.
    clearNo().


%------------------------------------------------------------------------------------
%the questions list
%***********************Q1***********************
    input(own_a_car) :-
        check("\n  Q: Have you used any car before? or do you own any car ?", own_
a_car).

%***********************Q2***********************
    input(travel_time) :-
        check("\n  Q: Is the travel time more than 6-8 hours ?", travel_time).

%***********************Q3***********************
    input(travel_route) :-
        check("\n  Q: Does the travel route contains slopes or rough terrain ?", travel
_route).
```

```prolog
%*************************Q4*************************
   input(four_wheel) :-
      check("\n  Q: Does the car has four-wheel drive ?", four_wheel).

%*************************Q5*************************
   input(manual_gear) :-
      check("\n  Q: Does the car has manual gear ? ", manual_gear).

%*************************Q6*************************
   input(cylinder) :-
      check("\n  Q: Does the car has more than or equal 6 cylinders?", cylinder).

%*************************Q7*************************
   input(fuel_economy) :-
      check("\n  Q: Does the car has a fuel economy system? ", fuel_economy).

%*************************Q8*************************
   input(maintenance) :-
      check("\n  Q: Did you check the air pressure of the wheels and did you do mai
ntenance for the car in the last 48 hours? ", maintenance).

%*************************Q9*************************
   input(safety) :-
      check("\n  Q: Does the car has a safety system ?", safety).

%*************************Q10*************************
   input(seats_comfortable) :-
      check("\n  Q: Are the seats comfortable?", seats_comfortable).

%*************************Q11*************************
   input(fridge) :-
      check("\n  Q: Does the car has a fridge ?", fridge).

%*************************Q12*************************
   input(automatic_gear) :-
      check("\n  Q: Does the car has an automatic gear ?", automatic_gear).

%-----------------------------------------END OF QUESTIONS ------------------------
----------------
%-----------------------------------------The Evaluation---------------------------
--------------
% Evaluation 1 :Own or use a car + Travel time > 6-
8 hours + there are slopes or rough terrain -----
```

```
%------------------------------------START OF RULES------------------------------
-----------------
%---------------------------------------Rule2-----------------------------------
---
    evaluation("  The Evaluation: Your car is a bad option for travel, not suitable for
slopes and rough terrain. ") :-
        input(own_a_car),
        input(travel_time),
        input(travel_route),
        not(input(four_wheel)).

%---------------------------------------Rule3-----------------------------------
---
    evaluation("  The Evaluation: Your car is not a very bad option, but it is difficult
to control. ") :-
        input(own_a_car),
        input(travel_time),
        input(travel_route),
        input(four_wheel),
        not(input(manual_gear)).

%---------------------------------------Rule4-----------------------------------
---
    evaluation("  The Evaluation: Your car is not practical for travel, preferably cylin
der more than or equal 6. ") :-
        input(own_a_car),
        input(travel_time),
        input(travel_route),
        input(four_wheel),
        input(manual_gear),
        not(input(cylinder)).

%---------------------------------------Rule5-----------------------------------
---
    evaluation("  The Evaluation: Your car may be impractical to travel for long dista
nces because it does not save the fuel. ") :-
        input(own_a_car),
        input(travel_time),
        input(travel_route),
        input(four_wheel),
        input(manual_gear),
        input(cylinder),
        not(input(fuel_economy)).
```

```
%----------------------------------------Rule6----------------------------------------
---
   evaluation("  The Evaluation: Your car is not suitable, it was not well prepared f
or travel ") :-
      input(own_a_car),
      input(travel_time),
      input(travel_route),
      input(four_wheel),
      input(manual_gear),
      input(cylinder),
      input(fuel_economy),
      not(input(maintenance)).

%----------------------------------------Rule7----------------------------------------
---
   evaluation("  The Evaluation: Your car is a bad and unacceptable option for trav
el, having a safety system is very important") :-
      input(own_a_car),
      input(travel_time),
      input(travel_route),
      input(four_wheel),
      input(manual_gear),
      input(cylinder),
      input(fuel_economy),
      input(maintenance),
      not(input(safety)).

%----------------------------------------Rule8----------------------------------------
---
   evaluation("  The Evaluation: Your car as performance and as a driving is suitabl
e, but travelling in this car can be tiring because the seats are not comfortable.") :-
      input(own_a_car),
      input(travel_time),
      input(travel_route),
      input(four_wheel),
      input(manual_gear),
      input(cylinder),
      input(fuel_economy),
      input(maintenance),
      input(safety),
      not(input(seats_comfortable)).

%----------------------------------------Rule9----------------------------------------
---
```

```prolog
    evaluation("   The Evaluation: Your car is an acceptable option for travel, no havi
ng a fridge does make it unsuitable car. ") :-
      input(own_a_car),
      input(travel_time),
      input(travel_route),
      input(four_wheel),
      input(manual_gear),
      input(cylinder),
      input(fuel_economy),
      input(maintenance),
      input(safety),
      input(seats_comfortable),
      not(input(fridge)).

%-----------------------------------------Rule10-------------------------------------
-----
    evaluation("   The Evaluation: Your car is a perfect and suitable car for travel for
more than 6-8 hours ") :-
      input(own_a_car),
      input(travel_time),
      input(travel_route),
      input(four_wheel),
      input(manual_gear),
      input(cylinder),
      input(fuel_economy),
      input(maintenance),
      input(safety),
      input(seats_comfortable),
      input(fridge).
%****************************END OF EVALUATION 1*******************
*****************

% Evaluation 2 : Own or use a car + Travel time > 6-
8 hours + No slopes or rough terrain ----
%-----------------------------------------Rule11-------------------------------------
-----
    evaluation("   The Evaluation: Your car is an acceptable option for travel, but it is
 better if the gear's car is automatic") :-
      input(own_a_car),
      input(travel_time),
      not(input(travel_route)),
      not(input(automatic_gear)).

%-----------------------------------------Rule12-------------------------------------
```

```
-----
    evaluation("   The Evaluation: Your car is not practical for travel, preferably cylin
der more than or equal 6") :-
        input(own_a_car),
        input(travel_time),
        not(input(travel_route)),
        input(automatic_gear),
        not(input(cylinder)).

%-----------------------------------------Rule13-------------------------------------
-----
    evaluation("   The Evaluation: Your car may be impractical to travel for long dista
nces because it does not save the fuel. ") :-
        input(own_a_car),
        input(travel_time),
        not(input(travel_route)),
        input(automatic_gear),
        input(cylinder),
        not(input(fuel_economy)).

%-----------------------------------------Rule14-------------------------------------
-----
    evaluation("   The Evaluation: Your car is not suitable, it was not well prepared f
or travel. ") :-
        input(own_a_car),
        input(travel_time),
        not(input(travel_route)),
        input(automatic_gear),
        input(cylinder),
        input(fuel_economy),
        not(input(maintenance)).

%-----------------------------------------Rule15-------------------------------------
-----
    evaluation("   The Evaluation: Your car is a bad and unacceptable option for trav
el, having a safety system is very important") :-
        input(own_a_car),
        input(travel_time),
        not(input(travel_route)),
        input(automatic_gear),
        input(cylinder),
        input(fuel_economy),
        input(maintenance),
        not(input(safety)).
```

```prolog
%-------------------------------------------Rule16-------------------------------------------

    evaluation("   The Evaluation: Your car as performance and as a driving is suitable, but traveling in this car can be tiring because the seats are not comfortable") :-
        input(own_a_car),
        input(travel_time),
        not(input(travel_route)),
        input(automatic_gear),
        input(cylinder),
        input(fuel_economy),
        input(maintenance),
        input(safety),
        not(input(seats_comfortable)).

%-------------------------------------------Rule17-------------------------------------------

    evaluation("   The Evaluation: Your car is an acceptable option for travel, no having a fridge does make it unsuitable car") :-
        input(own_a_car),
        input(travel_time),
        not(input(travel_route)),
        input(automatic_gear),
        input(cylinder),
        input(fuel_economy),
        input(maintenance),
        input(safety),
        input(seats_comfortable),
        not(input(fridge)).

%-------------------------------------------Rule18-------------------------------------------

    evaluation("   The Evaluation: Your car is a perfect option and suitable for travel for long distances with roads without slopes and rough terrain") :-
        input(own_a_car),
        input(travel_time),
        not(input(travel_route)),
        input(automatic_gear),
        input(cylinder),
        input(fuel_economy),
        input(maintenance),
        input(safety),
        input(seats_comfortable),
        input(fridge).
```

```prolog
%***************************END OF EVALUATION 2******************
*****************
% Evaluation 3 : Own or use a car + Travel time is not > 6-
8 hours + No slopes or rough terrain -----
%---------------------------------------Rule19---------------------------------------
-----
    evaluation("   The Evaluation: Your car is not suitable, it was not well prapared f
or travel.") :-
        input(own_a_car),
        not(input(travel_time)),
        not(input(maintenance)).

%---------------------------------------Rule20---------------------------------------
-----
    evaluation("   The Evaluation: Your car is a bad option for travel, because it is no
t a safety car. ") :-
        input(own_a_car),
        not(input(travel_time)),
        input(maintenance),
        not(input(safety)).

%---------------------------------------Rule21---------------------------------------
-----
    evaluation("   The Evaluation: Your car is acceptable option for travel, but it is no
t useful. ") :-
        input(own_a_car),
        not(input(travel_time)),
        input(maintenance),
        input(safety),
        not(input(seats_comfortable)).

%---------------------------------------Rule22---------------------------------------
-----
    evaluation("   The Evaluation: Your car is suitable and a perfect option for travel.
 ") :-
        input(own_a_car),
        not(input(travel_time)),
        input(maintenance),
        input(safety),
        input(seats_comfortable).
%***************************END OF EVALUATION 3******************
*****************
%--------------------------------------End of Evaluations-----------------------------
-----------------------
```

```
%-----------------------------------------End Main-----------------------------------------
-----------------------

end implement main

% the goal section which start the program by calling the run procedure

goal
    console::runUtf8(main::run).
%****************************END PROGRAM ****************************
*******************
```

4.2 Screenshots of the system

```
--------------------------------------------------------
Welcome to 'Car to Travel' Evaluation System!
--------------------------------------------------------
Please answer the following questions with yes or no (y/n).

 Q: Have you used any car before? or do you own any car ?n

   Sorry, the system can't help you.

   Do you want to use the car evaluation system again?
```

```
 Do you want to use the car evaluation system again?y

 Q: Have you used any car before? or do you own any car ?y

 Q: Is the travel time more than 6-8 hours ?y

 Q: Does the travel route contains slopes or rough terrain ?y

 Q: Does the car has four-wheel drive ?y

 Q: Does the car has manual gear ? n

   The Evaluation: Your car is not a very bad option, but it is difficult to control.

   Do you want to use the car evaluation system again?_
```

```
 Do you want to use the car evaluation system again?y

Q: Have you used any car before? or do you own any car ?y

Q: Is the travel time more than 6-8 hours ?y

Q: Does the travel route contains slopes or rough terrain ?y

Q: Does the car has four-wheel drive ?y

Q: Does the car has manual gear ? y

Q: Does the car has more than or equal 6 cylinders?y

Q: Does the car has a fuel economy system? y

Q: Did you check the air pressure of the wheels and did you do maintenance for the car in the last 48 hours? n

 The Evaluation: Your car is not suitable, it was not well prepared for travel

 Do you want to use the car evaluation system again?
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 Do you want to use the car evaluation system again?y

Q: Have you used any car before? or do you own any car ?y

Q: Is the travel time more than 6-8 hours ?y

Q: Does the travel route contains slopes or rough terrain ?n

Q: Does the car has an automatic gear ?n

 The Evaluation: Your car is an acceptable option for travel, but it is better if the gear's car is automatic

 Do you want to use the car evaluation system again?
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 Do you want to use the car evaluation system again?y

Q: Have you used any car before? or do you own any car ?y

Q: Is the travel time more than 6-8 hours ?y

Q: Does the travel route contains slopes or rough terrain ?n

Q: Does the car has an automatic gear ?y

Q: Does the car has more than or equal 6 cylinders?y

Q: Does the car has a fuel economy system? y

Q: Did you check the air pressure of the wheels and did you do maintenance for the car in the last 48 hours? y

Q: Does the car has a safety system ?y

Q: Are the seats comfortable?y

Q: Does the car has a fridge ?n

 The Evaluation: Your car is an acceptable option for travel, no having a fridge does make it unsuitable car

 Do you want to use the car evaluation system again?
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 Do you want to use the car evaluation system again?y

Q: Have you used any car before? or do you own any car ?y

Q: Is the travel time more than 6-8 hours ?n

Q: Did you check the air pressure of the wheels and did you do maintenance for the car in the last 48 hours? y

Q: Does the car has a safety system ?y

Q: Are the seats comfortable?y

 The Evaluation: Your car is suitable and a perfect option for travel.

 Do you want to use the car evaluation system again?
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 Do you want to use the car evaluation system again?y

Q: Have you used any car before? or do you own any car ?y

Q: Is the travel time more than 6-8 hours ?n

Q: Did you check the air pressure of the wheels and did you do maintenance for the car in the last 48 hours? y

Q: Does the car has a safety system ?n

 The Evaluation: Your car is a bad option for travel, because it is not a safety car.

 Do you want to use the car evaluation system again?
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