

Software Requirements Specification

for

Car Recommendation Expert System

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Introduction

Purpose

The car recommendation expert system helps the users to make the decision to buy a car based on the specification provided by the user itself. This software can be used to design an online interface for providing the best choice to customer's.

Intended Audience and Reading Suggestions

This SRS is mainly intended for developers because developer should have a clear idea about our project, about our requirements and about the goals of our project. Although this is mainly intended for developers but non-IT people can also read some part of it so he/she become more familiar with our expert system and can use it in more efficient and easy way.

Product Scope

The expert system can be used for making an application which suggests the customer to buy the best possible car according to their respective needs and also tell the detailed description about the car which is being suggested. This software can also be used for creating an online market for selling of cars.

References

Dahl, V., “Logic Programming as a Representation of Knowledge,” *IEEE Computer*, Vol. 16, October, 1983.

The sites referred are:

en.wikipedia.org

<http://www.swi-prolog.org/>

<http://www.learnprolognow.org/>

<http://kti.mff.cuni.cz/~bartak/prolog/>

https://en.wikipedia.org/wiki/Backward_chaining

Overall Description

Product Perspective

The proposed prolog based expert system is solution for provide recommendation for buying car. It also provide information about recommended car. This Expert System is a self contained product and will be helpful for designing an e-commerce site for selling cars.

Product Functions

This Expert System takes input from the user and based on their provided informations it recommends the result car and also the description of it.

User Classes and Characteristics

There are 2 kinds of users for the proposed system.

Administrators:

Administrators are the ones who adds or administers the categories for the products.

End User/Customers:

The end user will be the one who visits the system and view compared cars online from multiple site.

Operating Environment

Operating system: Windows xp and later/linux/mac

Software Required: SWI-Prolog (AMD 64, Multi-threaded v 7.2.3)

Design and Implementation Constraints

The main constraint here would be the checking the genuineness of the input provided by the user. There can be security risks involved.

The developed system should run under any platform (Unix, Linux, Mac, Windows etc..) which contains Prolog.

Assumptions and Dependencies

The customer should provide genuine information about his/her preferences and needs about the car which they wish to buy.

There will not be any new cars which will be launched after the development of this Expert System.

External Interface Requirements

User Interfaces

The user should only provide the choice number which he/she has and no further inputs should be provided by the user. The user should also give the inputs according to the given syntax which will be mentioned in the questions.

Hardware Interfaces

- **Processor** : Pentium 3 or Higher.
- **RAM** : 512MB or Higher.

Software Interfaces

- **Operating System** : Unix, Linux, Mac, Windows etc
- **Development tool** : SWI-PROLOG, Sublime text editor

System Features

The System will ask the user different questions according to the given set of data and the user will give the information so as to direct the Expert System to the correct result.

Description and Priority

The system will ask the user about their requirements and various other questions. Then according to the information provided by the user it will generate the result. This System will also give the details about the car which comes out as a result which will help the user to make a decision of investing his/her money on the car.

Response Sequences

The system will ask the user about their needs and for each response given by the user to each query, the system will give initiatives for the user to follow.

Functional Requirements

User should have a Linux OS or SWI-Prolog v 7.2.3 installed in case of Windows in his PC.

Other Nonfunctional Requirements

Performance Requirements

Our expert system should provide a correct recommends to the users according to their needs provide by itself.

Safety Requirements

The expert system should guide the user only to the level that provides information about user's needs by inputs.

In case of failure the expert system should terminate the task and print false statement on window.

Software Quality Attributes

Qualities for customer side-

Proper Abstractness- Expert System should be designed properly such that abstraction is maintained and only useful information is displayed to the customers.

Interactive - Expert system should be designed in such a way such that it is interactive so that customers face no problem.

Easy to use- Expert system should be easy to use so that there should not be any difficulty to customers in using it.

From developers side-

Platform dependencies-Our Expert System should be platform dependent. It should work only on platform PC,laptops in a proper manner.

Portability-Code should be portable. It should be able to run on most modern platforms.

Flexibility-There should be flexibility. The Expert System software should be designed in such a way that it can be updated easily with the advancement of the technology.

Other Requirements

User should know English language because our Expert system software doesn't support any other language .

