# The Report

**Cricket Knowledge Expert System** 

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### **Table of Contents**

CHAPTER 1 : HOW TO SETUP THE ENVIRONMENT	1
CHAPTER 2 : QUICK DEMO OF THE EXPERT SYSTEM	3

## **List of Figures**

Figure 1 : SWI-Prolog download page	1
Figure 2 : Open the project file	
Figure 3 : Start the project	2
Figure 4: Question no 01	3
Figure 5 : Question no 02	3
Figure 6 : Question no 03	4
Figure 7: Question no 04	4
Figure 8 : Question no 05	
Figure 9 : Question no 06	
Figure 10 : Output message 01	5
Figure 11: Message no 01	6
Figure 12 : Question no 07	6
Figure 13 : Output message 02	
Figure 14 : Message no 02	

### **Chapter 1 : How to setup the environment**

First of all, we must setup our working environment. That means, we have to install the SWI-Prolog stable version to our computer to open this project.

Use following link to download SWI-Prolog stable version,

SWI-Prolog downloads (swi-prolog.org)



Figure 1: SWI-Prolog download page

Here you can download the software relevant to your Operating System. That means if you are windows user, you can download windows set up and if you are another user, you are allowed to download those setups.

One important this is, this project has an interface to collect data from the user. Therefore, you must install the java environment to your computer. The interface is created by using java.

After finishing installation, just open it and open our expert system project. (See figure 2).

Then you must start the expert system. That means you have to type a command in the interface. Type "start." And press "Enter" key. (See figure 3).

Now we have successfully managed our environment. When it comes to the project file, it is prolog type project file. That means. It has ".pl" extension at the end. This is more enough in connection with set up the environment, and from next chapter let's sees how it works.

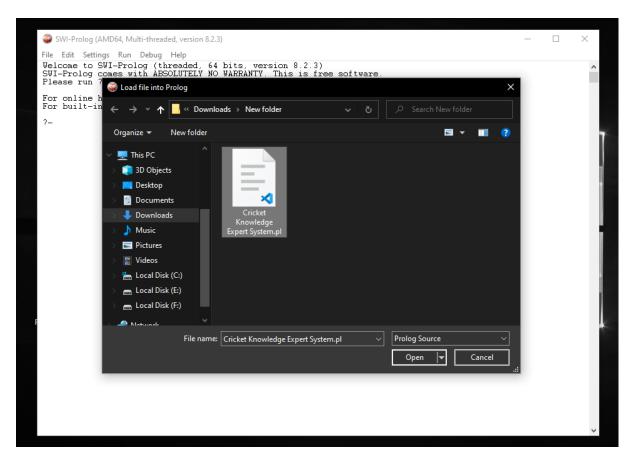


Figure 2: Open the project file

```
SWI-Prolog (AMD64, Multi-threaded, version 8.2.3)

File Edit Settings Run Debug Help

Welcome to SWI-Prolog (threaded, 64 bits, version 8.2.3)

SWI-Prolog comes with ABSOLUTELY NO WARRANTY. This is free software.

Please run ?- license. for legal details.

For online help and background, visit https://www.swi-prolog.org

For built-in help, use ?- help(Topic). or ?- apropos(Word).

?-

% Extended DLL search path with
% 'c:/Program Files/Java/jdk-11.0.2/bin/server'
% library(jpl) compiled into jpl 0.16 sec, 695 clauses
% c:/Users/Niro/Downloads/New folder/Cricket Knowledge Expert System.pl compiled 0.16 sec, 31 clauses
?- start.
```

Figure 3: Start the project

### **Chapter 2 : Quick demo of the expert system**

We have created a "Cricket Knowledge Expert System". This is somewhat small system but it has AI logics. As first step, it asks about our name and asks to keep an Asian country name in our mind.

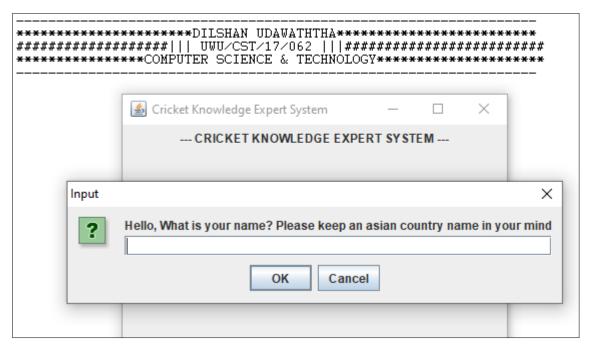


Figure 4: Question no 01

Now you have to type your name and keep an Asian country name in your mind. After it asks another question.



Figure 5: Question no 02

Once you enter your name, the system will call you as your entered name. For example I typed my name as "Dilshan" and the system called as Dilshan. Initially what we do, is keep one Asian country name in our mind and answer to the questions that ask from the system. We have to give correct answers and finally system will predict our country name.

You can see in figure 05, it asks whether our country has qualified for ICC cricket. Let's type as "y" represented as "Yes". Next it asks whether that country has won ICC cricket word cup in any format. Again we give answer as "Yes".



Figure 6: Question no 03

Now the system asks more questions.



Figure 7: Question no 04

Here you can see in figure 7, it has asked about player called "Lasith Malinga". Let's type as "Yes" again. Next it asks about whether that country has won Asian cup (See figure 8). Again our answer is "Yes".

Next again it asks about player who got 800 test wickets for that country. My answer is "Yes". (See figure 9)

Then you will see an output of the system. That means, system gives the result to us. Relevant to my answers, system says that your country is Sri Lanka. That is correct. I kept Sri Lanka in my mind. (See figure 10)



Figure 8 : Question no 05



Figure 9 : Question no 06



Figure 10: Output message 01

After pressing "OK" button, the system will be closed. Go to figure 5 and Question no 02, let's type "n" represented as "No". Then system display like this. (See figure 11)



Figure 11: Message no 01

Let's think another country and answer to the system. Go to figure 6 and Question number 03, and answer as "No". Then you will see another question like this. (See figure 12)



Figure 12: Question no 07

It asks about a player and when I type "Yes", it will display another output message. (See figure 13). It showed our country as Bangladesh. Yes it is correct. That means our expert system is working.

Another this that I want to talk you that when you press "Cancel" button on behalf of "OK" button, you will see an message like this. (See figure 14)

This is a quick demo about our "Cricket knowledge Expert System".



Figure 13 : Output message 02

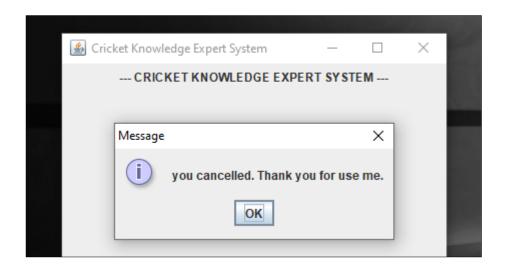


Figure 14 : Message no 02