Lab1: Inference with logical deductions using SWI-Prolog

Objective: Explore different logical queries based on knowledge base/data base

Step1. Go to online prolog compiler IDE: https://swish.swi-prolog.org/

Step2. Build the knowledge base or database

Database contains: Facts and Rules

Syntax of Proglog

Using the following truth-functional symbols, the Prolog expressions are

English	Predicate Calculus	Prolog
If	-->	:-
Not	~	Not
Or	V	;
and	^	,

comprised. These symbols have the same interpretation as in the predicate calculus.

Example

Facts:

girl(priya).

girl(tiyasha).

girl(jaya).

can_cook(priya).

Rules:

likes(priya,jaya) :- can_cook(jaya).

likes(priya,tiyasha) :- can_cook(tiyasha).

Query :

- can_cook(X).

Translate these into prolog KB.

Lili is happy if she dances.

Tom is hungry if he is searching for food.

Jack and Bili are friends if both of them love to play cricket.

He will go to play if school is closed, and he is free.

happy(lili) :- dances(lili).

hungry(tom) :- search_for_food(tom).

friends(jack, bili) :- lovesCricket(jack), lovesCricket(bili).

goToPlay(ryan) :- isClosed(school), free(ryan).

More practices .....