Example 1: Below food table shows the facts, rules, goals and their english meanings.

Facts	English meanings
food(burger).	// burger is a food
food(sandwich).	// sandwich is a food
food(pizza).	// pizza is a food
lunch(sandwich).	// sandwich is a lunch
dinner(pizza).	// pizza is a dinner

Rules

meal(X) :- food(X).	// Every food is a meal OR Anything is a meal if it is a food

Queries / Goals

?- food(pizza).	// Is pizza a food?
?- meal(X), lunch(X).	// Which food is meal and lunch?
?- dinner(sandwich).	// Is sandwich a dinner?

Example 2 : Below student-professor relation table shows the facts, rules, goals and their english meanings.

Facts	English meanings
studies(charlie, csc135).	// charlie studies csc135
studies(olivia, csc135).	// olivia studies csc135
studies(jack, csc131).	// jack studies csc131
studies(arthur, csc134).	// arthur studies csc134
teaches(kirke, csc135).	// kirke teaches csc135
teaches(collins, csc131).	// collins teaches csc131
teaches(collins, csc171).	// collins teaches csc171
teaches(juniper, csc134).	// juniper teaches csc134

Rules

professor(X, Y) :- teaches(X, C), studies(Y, C).	// X is a professor of Y if X teaches C and Y studies C.

Queries / Goals

?- studies(charlie, What).	// charlie studies what? OR What does charlie study?

?- professor(kirke, Students). // Who are the students of professor kirke.

Example 3 : Car

One more example with Facts, Goals and their English meanings.

Facts	**English meanings of Facts, Rules & Goals**
owns(jack, car(bmw)).	// jack owns bmw car
owns(john, car(chevy)).	// john owns chevy car
owns(olivia, car(civic)).	// olivia owns civic car
owns(jane, car(chevy)).	// jane owns chevy car
sedan(car(bmw)).	// bmw car is sedan
sedan(car(civic)).	// civic car is sedan
truck(car(chevy)).	// chevy car is truck
Queries / Goals & answers	
?- owns(john, X). X = car(chevy).	// What does john own?
?- owns(john, _). true.	// Does john own something?
?- owns(Who, car(chevy)). Who = john ; Who = jane .	// Who owns car chevy?
?- owns(jane, X), sedan(X). false.	// Does jane own sedan?
?- owns(jane, X), truck(X). X = car(chevy).	// Does jane own truck?

Example 4 : Own Pet and Love

One more example with Facts, Goals and their English meanings.

Facts	**English meanings of Facts, Rules & Goals**
cat(fubby).	// fubby is a cat
black_spots(fubby).	// fubby has black spots
dog(figaro).	// figaro is a dog
white_spots(figaro).	// figaro has white spots
Rules	
owns(mary, Pet):- cat(Pet), black_spots(Pet).	// mary owns a Pet if it is a cat and it has black spots
loves(Who, What):-owns(Who, What).	// If someone owns something, he loves it.
Queries / Goals & answers	
?- listing(cat). cat(fubby). cat(coby). true.	// list the all the clauses of predicates ‘cat.

?- listing(owns). owns(mary, A) :- cat(A), black_spots(A). true.	// list the all the clauses of predicates ‘owns’.
?- loves(Who, What). Who = mary, What = fubby	// Who loves what?
?- owns(mary, _). true.	// Mary owns something?