



SWI Prolog

Example Student-professor Relation Table

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Below student-professor relation table shows the facts, rules, goals and their English meanings.

Charlie Studies Csc135

Olivia Studies Csc135

Jack Studies Csc131

Arthur Studies Csc134

Kirke Teaches Csc135

Collins Teaches Csc131

Collins Teaches Csc171

Juniper Teaches Csc134

Facts

studies(charlie, csc135).

studies(olivia, csc135).

studies(jack, csc131).

studies(arthur, csc134).

teaches(kirke, csc135).

teaches(collins, csc131).

teaches(collins, csc171).

teaches(juniper, csc134).

Rule



X is a professor of Y if X teaches C
and Y studies C.

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professor(X,Y):-teaches(X, C), studies(Y, C).
```

% Facts about students and the courses they study

```
studies(charlie, csc135).  
studies(olivia, csc135).  
studies(jack, csc131).  
studies(arthur, csc134).
```

% Facts about professors and the courses they teach

```
teaches(kirke, csc135).  
teaches(collins, csc131).  
teaches(collins, csc171).  
teaches(juniper, csc134).
```

% Rule to determine if X is a professor of Y

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professor(X, Y) :- teaches(X, C), studies(Y, C).
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Charlie studies what? OR
What does charlie study?

W = csc135.

?- studies(charlie, W).

Who are the students of professor Kirke?

Y = charlie ;
Y = olivia ;

?- professor(kirke, Y).