

UCT31021 – PRACTICAL FOR ARTIFICIAL INTELLIGENCE
DEPARTMENT OF ICT
FACULTY OF TECHNOLOGY
SOUTH EASTERN UNIVERSITY OF SRILANKA

Labsheet: 04

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Title: Conjunction, Disjunction in PROLOG.

Conjunction

Predicate: - Condition1, Condition2.

Disjunction

Predicate: - Condition1; Condition2.

Eg :

<i>father(X,Y) :- parent(X,Y) , male(X).</i>	}	<i>Conjunction</i>
<i>grandparent(X,Y) :- parent(X,Z) , parent(Z,Y).</i>		
<i>child_of(X,Y) :- father(X,Y) ; mother(X,Y).</i>	}	<i>Disjunction</i>
<i>sunny_day(Day) :- weekend(Day) ; holiday(Day).</i>		

Task1:

John likes to Pizza and Ice cream. Mary likes to Pizza. Susan likes to salad.

1. Create the facts on the scenario.
2. Create a rule for both situations. (Conjunction, Disjunction).
3. Create a rule to list the items liked by john.

Task2:

1. Ask the user to enter the name of the logical programming language. If the user enters as 'PROLOG' then display "Correct Answer" or else display as "Wrong Answer".

Task3:

There are nine provinces in Sri Lanka. Each province has several districts.

Eg:

- Gampaha, Colombo, and Kaluthara are in Western Province.
 - Trincomalee, Batticaloa and Ampara are in the Eastern province.
 - Jaffna, Kilinochchi, and Vavuniya are in the Northern province.
 - Anuradhapura and Polonnaruwa are in the North-Center province.
 - Badulla and Monaragala are in the Uva province.
 - Hambanthota, Matara, and Galle are in the Southern province.
 - Matara, Kandy, Nuwara Eliya are in the Central province.
 - Puttalam and Kurunegala are in the North-Western province.
 - Kegalla and Rathnapura are in the Sabaragamuwa province.
1. Define a knowledge base with suitable facts and rules.
 2. List out the districts that are in Southern Province.
 3. Create a rule to given the province name when the district is entered.