THOMPSON RIVERS UNIVERSITY

COMP 3710 - 3
Applied Artificial Intelligence (3,1,0)
Fall 2017

Seminar/Lab 6.

Backward Chaining for ZooKeeper

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Let’s find if that animal is zebra, using backward chaining.

BC(…)	Fact?	No rule?	Rule0	Rule1	Return
BC(‘Zebra’)	No	No	['Ungulate', 'WhiteColor', 'BlackStrip']		BC(‘Ungulate’) && BC(‘WhiteColor’) && BC(‘BlackStrip’)
BC(‘Ungulate’)	No	No	[‘Mammal’, ‘Hoof’]	[‘Mammal’, ‘ChewCud’]	BC(‘Mammal’) && BC(‘Hoof’) || BC(‘Mammal’) && BC(‘ChewCud’)
BC(‘Mammal’)	No	No	[‘Hair’]	[‘Milk’]	BC(‘Hair’) || BC(‘Milk’)
BC(‘Hair’)	Yes				TRUE
BC(‘Milk’)	No				FALSE
BC(‘Mammal’)	No				TRUE || FALSE => **TRUE**
BC(‘Hoof’)	No				FALSE
BC(‘Mammal’)	**Yes**				TRUE
BC(‘ChewCud’)	Yes				TRUE
BC(‘Ungulate’)					TRUE && FALSE || TRUE && TRUE => **TRUE**
BC(‘WhiteColor’)	No	NO			FALSE
BC(‘BlackStrip’)	No	NO			FALSE
BC(‘Zebra’)					TRUE && FALSE && FALSE && => **FALSE**