21-01-2022

21 January 2022 14:56

Example 3:

Example	Citations	Size	InLibrary	Price	Editions	Buy
1	Some	Small	No	Affordable	One	No
2	Many	Big	No	Expensive	Many	Yes
3	Many	Medium	No	Expensive	Few	Yes
4	Many	Small	No	Affordable	Many	Yes

exclude here and make pairs for other values in this attribute

$S = \langle \phi, \phi, \phi, \phi, \phi \rangle \quad G = \langle ?, ?, ?, ?, ? \rangle$

can't specialize as all are "No"

1.) $S_1 = \langle \phi, \phi, \phi, \phi, \phi \rangle$

$G_1 = \{ \langle many, ?, ?, ?, ? \rangle, \langle ?, big, ?, ?, ? \rangle, \langle ?, medium, ?, ?, ? \rangle$

$\langle ?, ?, ?, exp, ? \rangle, \langle ?, ?, ?, ?, many \rangle, \langle ?, ?, ?, ?, few \rangle \}$

2.) $S_2 = \langle many, big, no, exp, many \rangle$

$G_2 = \{ \langle many, ?, ?, ?, ? \rangle, \langle ?, big, ?, ?, ? \rangle,$

$\langle ?, ?, ?, exp, ? \rangle, \langle ?, ?, ?, ?, many \rangle \}$

not consistent with S_2

3.) $S_3 = \langle many, ?, no, exp, ? \rangle$

$G_3 = \{ \langle many, ?, ?, ?, ? \rangle, \langle ?, ?, ?, exp, ? \rangle \}$

Not consistent with S_3

4.) $S_4 = \langle many, ?, no, ?, ? \rangle$

4.) $s_4 = \langle many, ?, no, ?, ? \rangle$

$G_4 = \langle many, ?, ?, ?, ? \rangle$ — Not consistent with S_4

VS = S_4 to G_4

Example 4

Origin	Manufacturer	Color	Decade	Type	Example Type
Japan	Honda	Blue	1980	Economy	Positive
Japan	Toyota	Green	1970	Sports	Negative
Japan	Toyota	Blue	1990	Economy	Positive
USA	Chrysler	Red	1980	Economy	Negative
Japan	Honda	White	1980	Economy	Positive
Japan	Toyota	Green	1980	Economy	Positive
Japan	Honda	Red	1990	Economy	Negative

$S = \langle \phi, \phi, \phi, \phi, \phi \rangle$ $G = \langle ?, ?, ?, ?, ? \rangle$

1.) $S_1 = \langle Japan, Honda, Blue, 1980, Economy \rangle$

$G_1 = \langle ?, ?, ?, ?, ? \rangle$

2.) $S_2 = S_1$

$G_2 = \{\langle ?, H, ?, ?, ? \rangle, \langle ?, ?, Blue, ?, ? \rangle, \langle ?, ?, ?, 1980, ? \rangle, \langle ?, ?, ?, ?, economy \rangle\}$

3.) $S_3 = \langle Japan, ?, Blue, ?, Economy \rangle$ — Inconsistent with S_3

$G_2 = \{\langle ?, ?, Blue, ?, ? \rangle, \langle ? ? ? economy \rangle\}$

$G_3 = \{ \langle ?, ?, Blue, ?, ? \rangle, \langle ? ? ? ?, economy \rangle \}$

Inconsistent with example

4.) $S_4 = S_3$

$G_4 = \{ \langle ?, ?, Blue, ?, ? \rangle,$

$\langle Japan, ?, ?, ?, Economy \rangle \}$ specialise $+ \langle ?, ?, B?, ? \rangle$

Inconsistent with S_5

5.) $S_5 = \{ Japan, ?, ?, ?, Economy \}$

$G_5 = \{ Japan, ?, ?, ?, Economy \}$

6.) $S_6 = S_5$

$G_6 = G_5$

7.) Special → Example is inconsistent with V.S.

∴ VS collapses.

∴ "No conjunctive Hypo. is consistent with the dataset"

PAC Learning

Probably Accurate Correct