

Solution-Assignment 3

Database Systems

BESE15-A

The solution is not unique. An example table and the associated rules can be found in the following.

Player Name	MatchID	Balls	Runs	Wickets	Catches	Result
Shane Watson	101	111	104	4	4	W
Shane Watson	201	3	2	2	2	L
Shane Watson	301	2	0	0	0	L
Shane Watson	401	3	2	1	2	L
Ricky Ponting	102	1	0	2	2	L
Ricky Ponting	202	81	69	0	4	W
Ricky Ponting	302	61	51	1	0	L
Ricky Ponting	402	121	108	4	0	W
Steven Waugh	103	41	51	1	2	L
Steve Waugh	203	21	50	4	1	W
Steve Waugh	303	118	101	1	3	W
Steve Waugh	403	59	11	1	1	W
J Gillespie	104	111	110	4	3	W
J Gillespie	204	10	22	1	1	W
J Gillespie	304	92	73	0	2	L
J Gillespie	404	34	18	2	4	L

Some association rules could be:

1. When a player scores a century, his team wins the match.

{ Score >= 100 } => { Win }

Support = 25%

Confidence = 100%

2. When a player does not take any wicket, the team loses the match.

$$\{\text{Wkts}=0\} \Rightarrow \{\text{Loss}\}$$

Support =19%

Confidence =66%

3. When a bowler takes 3 wickets, the team wins.

$$\{\text{Wkts}=3\} \Rightarrow \{\text{Win}\}$$

Support =25%

Confidence =100%

4. If a player takes at least 3 catches, his team wins the match.

$$\{\text{Catches}>2\} \Rightarrow \{\text{Win}\}$$

Support =25%

Confidence =75%

5. The player who makes a century also takes at least one wicket in that match.

$$\{\text{Runs}>=100\} \Rightarrow \{\text{Wkts}>=1\}$$

Support =25%

Confidence =100%

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