NAME : OGBONNAYA UCHENNA SAMUEL

REG NO: 2O22/HND/36328/CS

COURSE CODE :COM 423

COURSE TITLE:EXPERT SYSTEM AND MACHINE LEARNING

LEVEL :HND2

DATE: 15/7/2024

ASSIGNMENT ON COM 423

How does expert system resolve rule base conflict

Expert systems resolve rule base conflicts using various strategies, depending on the design and requirements of the system. Here are some common conflict resolution strategies:

1• Specificity: This strategy gives preference to the more specific rule. If two rules conflict, the rule that is more specific (with more conditions) is chosen over the more general one.

2• Recency: The system prioritizes the rule that was triggered most recently. This can be useful in dynamic environments where the most recent information is likely to be the most relevant.

3• Priority Levels: Rules are assigned priority levels, and the system chooses the rule with the highest priority. This requires careful design to ensure that the priorities reflect the importance or relevance of the rules.

4• Rule Ordering: The rules are processed in a predefined order, and the first applicable rule is chosen. This can be a simple and straightforward way to resolve conflicts but requires careful ordering of rules.

5• Context Limiting: The system uses the context to determine which rules are applicable. Only the rules relevant to the current context are considered, reducing the likelihood of conflicts.

6• Random Selection: In some cases, a random choice may be used to resolve conflicts, although this is less common and usually a last resort.

7• Meta-Rules: These are rules about how to apply other rules. Meta-rules can help determine which rule to apply in case of conflict by considering additional factors.

Different expert systems might use one or a combination of these strategies to handle rule base conflicts effectively. The choice of strategy often depends on the specific application and the desired behavior of the system.