CSA-1704 AI FOR LLM

PROGRAM 32

% Facts: list of words

word(cat).

word(dog).

word(cow).

word(cot).

word(cap).

% Match a pattern against the words

match\_pattern(Pattern, Word) :-

word(Word), % Get a word from facts

atom\_chars(Pattern, PatternChars),

atom\_chars(Word, WordChars),

pattern\_match(PatternChars, WordChars).

% Base case: empty pattern matches empty word

pattern\_match([], []).

% Case: Pattern character is wildcard '\_', matches any character

pattern\_match(['\_'|PTail], [\_|WTail]) :-

pattern\_match(PTail, WTail).

% Case: Pattern character matches word character

pattern\_match([PHead|PTail], [WHead|WTail]) :-

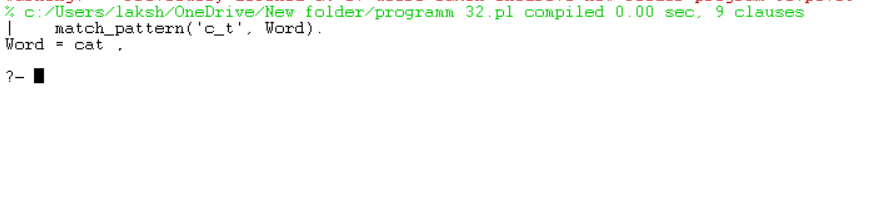
PHead = WHead,

pattern\_match(PTail, WTail).

Queries:

?- match\_pattern('c\_t', Word).

Output:

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