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FUNCTION_BLOCK sentiment      // Block definition (there may be more than one block per file)

VAR_INPUT                    // Define input variables
    autor_reputation : REAL;
    padroes : REAL;          // sugestão: Média quant_padroes/tamanho_comment
    corretude: REAL;
END_VAR

VAR_OUTPUT                   // Define output variable
    importancia : REAL;
END_VAR

FUZZIFY autor_reputation     // Fuzzify input variable 'autor_reputation': {'poor',
'good' , 'excellent'}
    TERM poor := (0, 1) (4, 0) ;
    TERM good := (1, 0) (4,1) (6,1) (9,0);
    TERM excellent := (6, 0) (9, 1);
END_FUZZIFY

FUZZIFY padroes              // Fuzzify input variable 'padroes': { 'baixo','medio','alto' }
    TERM baixo := (0, 1) (10, 1) (20,0) ;
    TERM medio := (15,0) (25,1) (30,1) (45,0) ;
    TERM alto := (40,0) (50,1);
END_FUZZIFY

FUZZIFY corretude            // Fuzzify input variable 'corretude': { 'baixo','medio','alto' }
    TERM baixo := (0, 1) (30, 1) (45,0) ;
    TERM medio := (35,0) (50,1) (70,1) (80,0) ;
    TERM alto := (75,0) (80,1) (100,1);
END_FUZZIFY

DEFUZZIFY importancia        // Defuzzify output variable 'importancia' : {'muito_baixa',
'baixa', 'media','alta','muito_alta' }
    TERM muito_baixa := (0,0) (5,1) (10,0);
    TERM baixa := (10,0) (15,1) (20,0);
    TERM media := (20,0) (25,1) (30,0);
    TERM alta := (30,0) (35,1) (40,0);
    TERM muito_alta := (40,0) (45,1);

    METHOD : COG;              // Use 'Center Of Gravity' defuzzification method
    DEFAULT := 0;             // Default value is 0 (if no rule activates defuzzifier)
END_DEFUZZIFY

RULEBLOCK No1
    AND : MIN;                // Use 'min' for 'and' (also implicit use 'max' for 'or' to fulfill
    DeMorgan's Law)
    ACT : MIN;                // Use 'min' activation method
    ACCU : MAX;               // Use 'max' accumulation method

    RULE 1 : IF autor_reputation IS poor AND padroes IS baixo AND corretude IS baixo THEN
    importancia IS muito_baixa;
    RULE 2 : IF autor_reputation IS poor AND padroes IS baixo AND corretude IS medio THEN
    importancia IS baixa;
    RULE 3 : IF autor_reputation IS poor AND padroes IS baixo AND corretude IS alto THEN
    importancia IS baixa;
    RULE 4 : IF autor_reputation IS poor AND padroes IS medio AND corretude IS baixo THEN

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importancia IS baixa;
RULE 5 : IF autor_reputation IS poor AND padroes IS medio AND corretude IS medio THEN
importancia IS media;
RULE 6 : IF autor_reputation IS poor AND padroes IS medio AND corretude IS alto THEN
importancia IS media;
RULE 7 : IF autor_reputation IS poor AND padroes IS alto AND corretude IS baixo THEN
importancia IS alta;
RULE 8 : IF autor_reputation IS poor AND padroes IS alto AND corretude IS medio THEN
importancia IS alta;
RULE 9 : IF autor_reputation IS poor AND padroes IS alto AND corretude IS alto THEN
importancia IS alta;
    RULE 10 : IF autor_reputation IS good AND padroes IS baixo AND corretude IS baixo
    THEN importancia IS baixa;
RULE 11 : IF autor_reputation IS good AND padroes IS baixo AND corretude IS medio THEN
importancia IS baixa;
RULE 12 : IF autor_reputation IS good AND padroes IS baixo AND corretude IS alto THEN
importancia IS baixa;
RULE 13 : IF autor_reputation IS good AND padroes IS medio AND corretude IS baixo THEN
importancia IS baixa;
RULE 14 : IF autor_reputation IS good AND padroes IS medio AND corretude IS medio THEN
importancia IS media;
RULE 15 : IF autor_reputation IS good AND padroes IS medio AND corretude IS alto THEN
importancia IS media;
RULE 16 : IF autor_reputation IS good AND padroes IS alto AND corretude IS baixo THEN
importancia IS alta;
RULE 17 : IF autor_reputation IS good AND padroes IS alto AND corretude IS medio THEN
importancia IS alta;
RULE 18 : IF autor_reputation IS good AND padroes IS alto AND corretude IS alto THEN
importancia IS alta;
    RULE 19 : IF autor_reputation IS excellent AND padroes IS baixo AND corretude IS
    baixo THEN importancia IS baixa;
RULE 20 : IF autor_reputation IS excellent AND padroes IS baixo AND corretude IS medio
THEN importancia IS baixa;
RULE 21 : IF autor_reputation IS excellent AND padroes IS baixo AND corretude IS alto
THEN importancia IS media;
RULE 22 : IF autor_reputation IS excellent AND padroes IS medio AND corretude IS baixo
THEN importancia IS media;
RULE 23 : IF autor_reputation IS excellent AND padroes IS medio AND corretude IS medio
THEN importancia IS alta;
RULE 24 : IF autor_reputation IS excellent AND padroes IS medio AND corretude IS alto
THEN importancia IS alta;
RULE 25 : IF autor_reputation IS excellent AND padroes IS alto AND corretude IS baixo
THEN importancia IS alta;
RULE 26 : IF autor_reputation IS excellent AND padroes IS alto AND corretude IS medio
THEN importancia IS alta;
RULE 27 : IF autor_reputation IS excellent AND padroes IS alto AND corretude IS alto
THEN importancia IS muito_alta;
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END_RULEBLOCK

END_FUNCTION_BLOCK