

FORMAÇÃO CIENTISTA DE DADOS

CLASSIFICAÇÃO

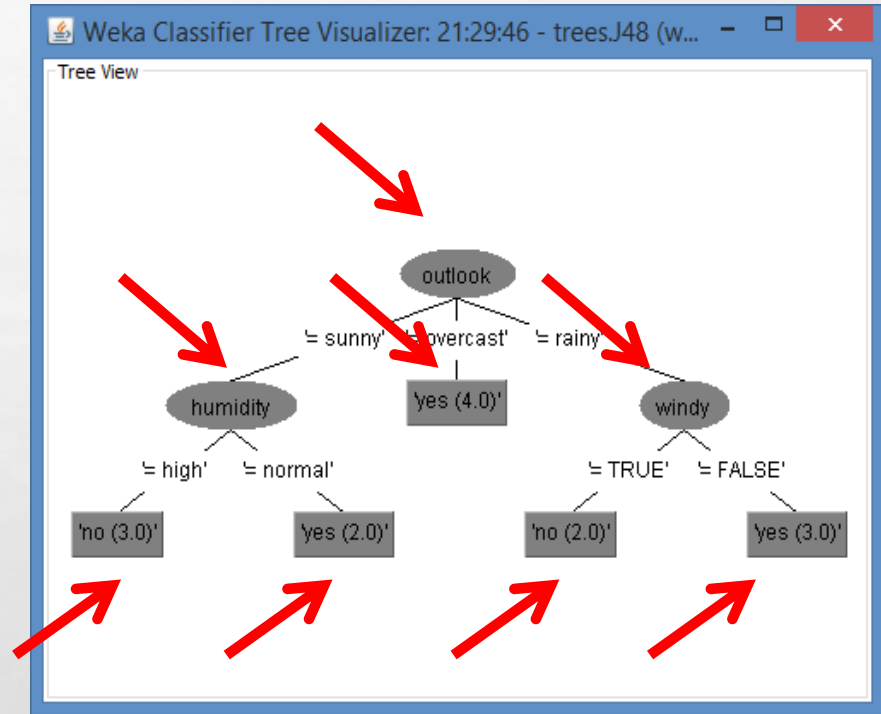


TIPOS DE ALGORITMOS

- **ÁRVORES DE DECISÃO**
- **REGRAS**
- **NAÏVE BAYES**
- **REDES BAYESIANAS**
- **REDES NEURAIS ARTIFICIAIS E APRENDIZADO PROFUNDO (PRÓXIMO MÓDULO)**
- **MAQUINA DE VETOR DE SUPORTE**
- **MÉTODOS DE GRUPOS**
- **APRENDIZADO BASEADO EM INSTÂNCIA**

ÁRVORES DE DECISÃO

- **NODO RAIZ**
- **NODOS INTERNOS**
- **NODOS TERMINAIS**
- **ALGORITMO DE PARTIÇÃO: GRAU DE PUREZA**



ÁRVORES DE DECISÃO

=== CLASSIFIER MODEL (FULL TRAINING SET) ===

J48 PRUNED TREE

OUTLOOK = SUNNY

| HUMIDITY = HIGH: NO (3.0)

| HUMIDITY = NORMAL: YES (2.0)

OUTLOOK = OVERCAST: YES (4.0)

OUTLOOK = RAINY

| WINDY = TRUE: NO (2.0)

| WINDY = FALSE: YES (3.0)

NUMBER OF LEAVES : 5

SIZE OF THE TREE : 8

REGRAS

SINTAXE DO TIPO IF/THEN/ELSE

NNGE CLASSIFIER

RULES GENERATED :

CLASS NO IF : OUTLOOK IN {RAINY} ^ TEMPERATURE IN {MILD,COOL} ^ HUMIDITY IN {HIGH,NORMAL} ^ WINDY IN {TRUE} (2)

CLASS YES IF : OUTLOOK IN {OVERCAST,RAINY} ^ TEMPERATURE IN {HOT,MILD,COOL} ^ HUMIDITY IN {HIGH,NORMAL} ^ WINDY IN {FALSE} (5)

CLASS YES IF : OUTLOOK IN {OVERCAST} ^ TEMPERATURE IN {MILD,COOL} ^ HUMIDITY IN {HIGH,NORMAL} ^ WINDY IN {TRUE} (2)

CLASS YES IF : OUTLOOK IN {SUNNY} ^ TEMPERATURE IN {MILD,COOL} ^ HUMIDITY IN {NORMAL} ^ WINDY IN {TRUE,FALSE} (2)

CLASS NO IF : OUTLOOK IN {SUNNY} ^ TEMPERATURE IN {HOT,MILD} ^ HUMIDITY IN {HIGH} ^ WINDY IN {TRUE,FALSE} (3)

STAT :

CLASS YES : 3 EXEMPLAR(S) INCLUDING 3 HYPERRECTANGLE(S) AND 0 SINGLE(S).

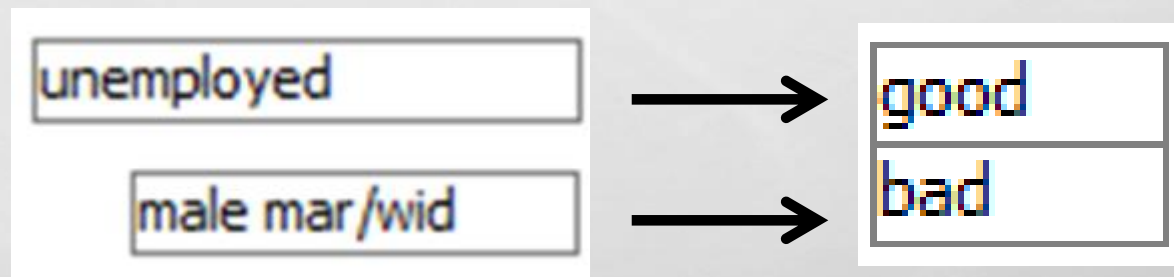
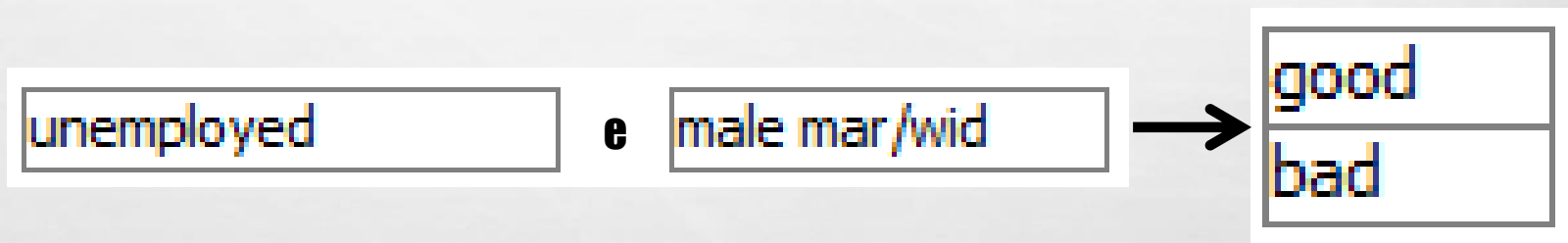
CLASS NO : 2 EXEMPLAR(S) INCLUDING 2 HYPERRECTANGLE(S) AND 0 SINGLE(S).

TOTAL : 5 EXEMPLARS(S) INCLUDING 5 HYPERRECTANGLE(S) AND 0 SINGLE(S).

FEATURE WEIGHTS : [0.24674981977443894 0.029222565658954577 0.15183550136234153 0.04812703040826924]

NAÏVE BAYES

BASEADO NA TEORIA DAS PROBABILIDADES E QUE SUPÕE QUE OS ATRIBUTOS VÃO INFLUENCIAR A CLASSE DE FORMA INDEPENDENTE



NAÏVE BAYES

ATTRIBUTE	YES	NO
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(0.63)	(0.38)
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OUTLOOK

SUNNY	3.0	4.0
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OVERCAST	5.0	1.0
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RAINY	4.0	3.0
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[TOTAL]	12.0	8.0
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TEMPERATURE

HOT	3.0	3.0
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MILD	5.0	3.0
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COOL	4.0	2.0
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[TOTAL]	12.0	8.0
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HUMIDITY

HIGH	4.0	5.0
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NORMAL	7.0	2.0
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[TOTAL]	11.0	7.0
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WINDY

TRUE	4.0	4.0
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FALSE	7.0	3.0
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[TOTAL]	11.0	7.0
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REDES BAYESIANAS

UMA REDE BAYESIANA PODE MOSTRAR EVENTUAL DEPENDÊNCIA ENTRE OS ESTES ATRAVÉS DE PROBABILIDADE CONDICIONAL

