Trabajo Investigativo

de

Inteligencia Artificial

Integrantes:

|  |  |
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| Arián Castellanos Rodríguez | Info - 31 |
| Elizabeth Caballero González | Info - 31 |

1. A continuación se muestra el archivo:

@relation abulones

@attribute sexo {M,F,A}

@attribute longitud numeric

@attribute diametro numeric

@attribute altura numeric

@attribute peso\_total numeric

@attribute peso\_esqueleto numeric

@attribute peso\_organos numeric

@attribute peso\_concha numeric

@attribute clasificaciones {1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,29}

@data

M,0.455,0.365,0.095,0.514,0.2245,0.101,0.15,15

M,0.35,0.265,0.09,0.2255,0.0995,0.0485,0.07,7

F,0.53,0.42,0.135,0.677,0.2565,0.1415,0.21,9

M,0.44,0.365,0.125,0.516,0.2155,0.114,0.155,10

A,0.33,0.255,0.08,0.205,0.0895,0.0395,0.055,7

A,0.425,0.3,0.095,0.3515,0.141,0.0775,0.12,8

F,0.53,0.415,0.15,0.7775,0.237,0.1415,0.33,20

F,0.545,0.425,0.125,0.768,0.294,0.1495,0.26,16

M,0.475,0.37,0.125,0.5095,0.2165,0.1125,0.165,9

F,0.55,0.44,0.15,0.8945,0.3145,0.151,0.32,19

F,0.525,0.38,0.14,0.6065,0.194,0.1475,0.21,14

F,0.47,0.355,0.1,0.4755,0.1675,0.0805,0.185,10

M,0.5,0.4,0.13,0.6645,0.258,0.133,0.24,12

A,0.355,0.28,0.085,0.2905,0.095,0.0395,0.115,7

M,0.365,0.295,0.08,0.2555,0.097,0.043,0.1,7

F,0.615,0.48,0.165,1.1615,0.513,0.301,0.305,10

M,0.59,0.445,0.14,0.931,0.356,0.234,0.28,12

M,0.605,0.475,0.18,0.9365,0.394,0.219,0.295,15

M,0.575,0.425,0.14,0.8635,0.393,0.227,0.2,11

M,0.58,0.47,0.165,0.9975,0.3935,0.242,0.33,10

F,0.68,0.56,0.165,1.639,0.6055,0.2805,0.46,15

F,0.68,0.55,0.175,1.798,0.815,0.3925,0.455,19

F,0.705,0.55,0.2,1.7095,0.633,0.4115,0.49,13

M,0.465,0.355,0.105,0.4795,0.227,0.124,0.125,8

F,0.54,0.475,0.155,1.217,0.5305,0.3075,0.34,16

F,0.45,0.355,0.105,0.5225,0.237,0.1165,0.145,8

F,0.575,0.445,0.135,0.883,0.381,0.2035,0.26,11

M,0.355,0.29,0.09,0.3275,0.134,0.086,0.09,9

F,0.45,0.335,0.105,0.425,0.1865,0.091,0.115,9

F,0.55,0.425,0.135,0.8515,0.362,0.196,0.27,14

A,0.24,0.175,0.045,0.07,0.0315,0.0235,0.02,5

A,0.205,0.15,0.055,0.042,0.0255,0.015,0.012,5

A,0.39,0.295,0.095,0.203,0.0875,0.045,0.075,7

M,0.47,0.37,0.12,0.5795,0.293,0.227,0.14,9

F,0.46,0.375,0.12,0.4605,0.1775,0.11,0.15,7

A,0.325,0.245,0.07,0.161,0.0755,0.0255,0.045,6

F,0.525,0.425,0.16,0.8355,0.3545,0.2135,0.245,9

A,0.52,0.41,0.12,0.595,0.2385,0.111,0.19,8

M,0.4,0.32,0.095,0.303,0.1335,0.06,0.1,7

F,0.47,0.36,0.12,0.4775,0.2105,0.1055,0.15,10

F,0.5,0.4,0.14,0.6615,0.2565,0.1755,0.22,8

A,0.245,0.19,0.06,0.086,0.042,0.014,0.025,4

F,0.505,0.4,0.125,0.583,0.246,0.13,0.175,7

M,0.45,0.345,0.105,0.4115,0.18,0.1125,0.135,7

M,0.425,0.325,0.095,0.3785,0.1705,0.08,0.1,7

M,0.475,0.355,0.12,0.48,0.234,0.1015,0.135,8

F,0.595,0.495,0.185,1.285,0.416,0.224,0.485,13

A,0.31,0.235,0.07,0.151,0.063,0.0405,0.045,6

M,0.555,0.425,0.13,0.7665,0.264,0.168,0.275,13

F,0.4,0.32,0.11,0.353,0.1405,0.0985,0.1,8

F,0.595,0.475,0.17,1.247,0.48,0.225,0.425,20

F,0.6,0.475,0.15,1.0075,0.4425,0.221,0.28,15

M,0.595,0.475,0.14,0.944,0.3625,0.189,0.315,9

F,0.555,0.425,0.14,0.788,0.282,0.1595,0.285,11

F,0.575,0.445,0.14,0.941,0.3845,0.252,0.285,9

M,0.62,0.51,0.175,1.615,0.5105,0.192,0.675,12

F,0.52,0.425,0.165,0.9885,0.396,0.225,0.32,16

M,0.58,0.45,0.14,1.013,0.38,0.216,0.36,14

F,0.57,0.465,0.18,1.295,0.339,0.2225,0.44,12

F,0.46,0.355,0.13,0.517,0.2205,0.114,0.165,9

F,0.575,0.45,0.16,0.9775,0.3135,0.231,0.33,12

M,0.565,0.425,0.135,0.8115,0.341,0.1675,0.255,15

M,0.555,0.44,0.15,0.755,0.307,0.1525,0.26,12

M,0.595,0.465,0.175,1.115,0.4015,0.254,0.39,13

M,0.695,0.56,0.19,1.494,0.588,0.3425,0.485,15

M,0.665,0.535,0.195,1.606,0.5755,0.388,0.48,14

M,0.535,0.435,0.15,0.725,0.269,0.1385,0.25,9

M,0.47,0.375,0.13,0.523,0.214,0.132,0.145,8

M,0.47,0.37,0.13,0.5225,0.201,0.133,0.165,7

M,0.55,0.435,0.145,0.843,0.328,0.1915,0.255,15

M,0.53,0.435,0.16,0.883,0.316,0.164,0.335,15

M,0.53,0.415,0.14,0.724,0.3105,0.1675,0.205,10

M,0.605,0.47,0.16,1.1735,0.4975,0.2405,0.345,12

F,0.52,0.41,0.155,0.727,0.291,0.1835,0.235,12

F,0.545,0.43,0.165,0.802,0.2935,0.183,0.28,11

F,0.5,0.4,0.125,0.6675,0.261,0.1315,0.22,10

F,0.51,0.39,0.135,0.6335,0.231,0.179,0.2,9

F,0.435,0.395,0.105,0.3635,0.136,0.098,0.13,9

M,0.495,0.395,0.125,0.5415,0.2375,0.1345,0.155,9

M,0.465,0.36,0.105,0.431,0.172,0.107,0.175,9

A,0.435,0.32,0.08,0.3325,0.1485,0.0635,0.105,9

M,0.425,0.35,0.105,0.393,0.13,0.063,0.165,9

F,0.545,0.41,0.125,0.6935,0.2975,0.146,0.21,11

F,0.53,0.415,0.115,0.5915,0.233,0.1585,0.18,11

F,0.49,0.375,0.135,0.6125,0.2555,0.102,0.22,11

F,0.56,0.43,0.15,0.8825,0.3465,0.172,0.31,9

M,0.405,0.305,0.085,0.2605,0.1145,0.0595,0.085,8

F,0.47,0.365,0.105,0.4205,0.163,0.1035,0.14,9

F,0.515,0.425,0.14,0.766,0.304,0.1725,0.255,14

M,0.37,0.265,0.075,0.214,0.09,0.051,0.07,6

A,0.36,0.28,0.08,0.1755,0.081,0.0505,0.07,6

A,0.27,0.195,0.06,0.073,0.0285,0.0235,0.03,5

M,0.7,0.535,0.16,1.7255,0.63,0.2635,0.54,19

M,0.71,0.54,0.165,1.959,0.7665,0.261,0.78,18

F,0.44,0.35,0.125,0.4035,0.175,0.063,0.129,9

A,0.35,0.26,0.095,0.211,0.086,0.056,0.068,7

A,0.265,0.2,0.065,0.0975,0.04,0.0205,0.028,7

F,0.425,0.33,0.115,0.406,0.1635,0.081,0.1355,8

F,0.305,0.23,0.08,0.156,0.0675,0.0345,0.048,7

M,0.345,0.255,0.09,0.2005,0.094,0.0295,0.063,9

F,0.405,0.325,0.11,0.3555,0.151,0.063,0.117,9

M,0.375,0.285,0.095,0.253,0.096,0.0575,0.0925,9

F,0.565,0.445,0.155,0.826,0.341,0.2055,0.2475,10

F,0.55,0.45,0.145,0.741,0.295,0.1435,0.2665,10

M,0.65,0.52,0.19,1.3445,0.519,0.306,0.4465,16

M,0.56,0.455,0.155,0.797,0.34,0.19,0.2425,11

M,0.475,0.375,0.13,0.5175,0.2075,0.1165,0.17,10

F,0.49,0.38,0.125,0.549,0.245,0.1075,0.174,10

M,0.46,0.35,0.12,0.515,0.224,0.108,0.1565,10

A,0.17,0.13,0.095,0.03,0.013,0.008,0.01,4

M,0.59,0.475,0.145,1.053,0.4415,0.262,0.325,15

F,0.635,0.515,0.19,1.3715,0.5065,0.305,0.45,10

F,0.605,0.485,0.16,1.0565,0.37,0.2355,0.355,10

F,0.565,0.45,0.135,0.9885,0.387,0.1495,0.31,12

M,0.515,0.405,0.13,0.722,0.32,0.131,0.21,10

F,0.575,0.46,0.19,0.994,0.392,0.2425,0.34,13

F,0.58,0.455,0.17,0.9075,0.374,0.2135,0.285,13

F,0.575,0.46,0.165,1.124,0.2985,0.1785,0.44,13

F,0.605,0.485,0.16,1.222,0.53,0.2575,0.28,13

F,0.725,0.56,0.21,2.141,0.65,0.398,1.005,18

F,0.65,0.545,0.23,1.752,0.5605,0.2895,0.815,16

F,0.725,0.575,0.175,2.124,0.765,0.4515,0.85,20

F,0.68,0.57,0.205,1.842,0.625,0.408,0.65,20

F,0.68,0.515,0.175,1.6185,0.5125,0.409,0.62,12

M,0.695,0.55,0.215,1.9565,0.7125,0.541,0.59,14

F,0.53,0.395,0.145,0.775,0.308,0.169,0.255,7

M,0.525,0.435,0.155,1.065,0.486,0.233,0.285,8

A,0.315,0.245,0.085,0.1435,0.053,0.0475,0.05,8

A,0.225,0.16,0.045,0.0465,0.025,0.015,0.015,4

M,0.57,0.48,0.18,0.9395,0.399,0.2,0.295,14

F,0.62,0.475,0.175,1.0165,0.4355,0.214,0.325,10

F,0.645,0.51,0.2,1.5675,0.621,0.367,0.46,12

M,0.62,0.49,0.19,1.218,0.5455,0.2965,0.355,13

F,0.63,0.48,0.15,1.0525,0.392,0.336,0.285,12

F,0.63,0.48,0.16,1.199,0.5265,0.335,0.315,11

A,0.355,0.275,0.085,0.22,0.092,0.06,0.15,8

F,0.51,0.4,0.14,0.8145,0.459,0.1965,0.195,10

M,0.5,0.405,0.155,0.772,0.346,0.1535,0.245,12

M,0.64,0.5,0.185,1.3035,0.4445,0.2635,0.465,16

M,0.585,0.46,0.185,0.922,0.3635,0.213,0.285,10

F,0.45,0.345,0.12,0.4165,0.1655,0.095,0.135,9

F,0.5,0.4,0.145,0.63,0.234,0.1465,0.23,12

M,0.42,0.335,0.115,0.369,0.171,0.071,0.12,8

F,0.44,0.34,0.14,0.482,0.186,0.1085,0.16,9

A,0.4,0.3,0.11,0.315,0.109,0.067,0.12,9

A,0.435,0.34,0.11,0.3795,0.1495,0.085,0.12,8

F,0.49,0.365,0.145,0.6345,0.1995,0.1625,0.22,10

M,0.335,0.25,0.09,0.181,0.0755,0.0415,0.06,7

F,0.415,0.325,0.105,0.38,0.1595,0.0785,0.12,12

M,0.5,0.405,0.14,0.6155,0.241,0.1355,0.205,9

M,0.55,0.405,0.14,0.8025,0.244,0.1635,0.255,10

M,0.45,0.35,0.13,0.46,0.174,0.111,0.135,8

M,0.47,0.36,0.135,0.501,0.1665,0.115,0.165,10

F,0.415,0.305,0.13,0.32,0.1305,0.0755,0.105,8

F,0.445,0.325,0.125,0.455,0.1785,0.1125,0.14,9

F,0.47,0.35,0.145,0.5175,0.187,0.1235,0.18,11

F,0.49,0.375,0.15,0.5755,0.22,0.144,0.19,9

F,0.5,0.37,0.135,0.45,0.1715,0.1055,0.155,9

F,0.39,0.29,0.125,0.3055,0.121,0.082,0.09,7

A,0.365,0.27,0.085,0.205,0.078,0.0485,0.07,7

A,0.365,0.27,0.085,0.205,0.078,0.0485,0.07,?

Tabla 1.1

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| --- | --- | --- | --- |
| **Algoritmos** | **Predicción real** | **Predicción Weka** | **Margen de error** |
| ZeroR | 7 | 9 | 0.0652 |
| J48 | 7 | 9 | 0.0605 |
| NBTree | 7 | 9 | 0.0614 |
| Logistic | 7 | 9 | 0.0605 |
| END | 7 | 9 | 0.0602 |
| IBk | 7 | 7 | 0.062 |
| IB 1 | 7 | 7 | 0.0607 |
| KStar | 7 | 10 | 0.0607 |
| LWL | 7 | 12 | 0.0612 |
| VFI | 7 | 8 | 0.0608 |
| Vote | 7 | 7 | 0.0613 |