

Lab A - Module 3.2

The screenshot displays a Jupyter Notebook environment with a file explorer on the left and a code editor on the right. The file explorer shows a directory named 'en_us' containing several files: '3_2-machinelearning.i...', 'column_2C.weka.arff', 'column_2C.dat', 'column_3C.weka.arff', 'column_3C.dat', and 'Untitled.ipynb'. The 'Untitled.ipynb' file is selected and open in the code editor.

The code in the notebook defines a dataset with 310 rows and 7 columns. The columns are: 'pelvic_incidence', 'pelvic_tilt', 'lumbar_lordosis_angle', 'sacral_slope', 'pelvic_radius', 'degree_spondylolisthesis', and 'class'. The 'class' column has two categories: 'Abnormal' and 'Normal'.

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( 67.80469442, 16.55066167, 43.25680184, 51.25403274, 119.6856451, 4.86753994e+00, b'Normal'),
( 61.73487533, 17.11431203, 46.89999999, 44.6205633, 120.9201997, 3.08772600e+00, b'Normal'),
( 33.04168754, -0.32467846, 19.0710746, 33.366366, 120.3886112, 9.35436493e+00, b'Normal'),
( 74.56501543, 15.72431994, 58.61858244, 58.84069549, 105.417304, 5.99247113e-01, b'Normal'),
( 44.43070103, 14.17426387, 32.2434952, 30.25643716, 131.7176127, -3.60425534e+00, b'Normal'),
( 36.42248549, 13.87942449, 20.24256187, 22.543061, 126.0760612, 1.79717077e-01, b'Normal'),
( 51.07983294, 14.20993529, 35.95122893, 36.86989765, 115.8037111, 6.90508996e+00, b'Normal'),
( 34.75673809, 2.63173965, 29.50438112, 32.12499844, 127.1398495, -4.60894198e-01, b'Normal'),
( 48.90290434, 5.58758866, 55.49999999, 43.31531568, 137.1082886, 1.98547592e+01, b'Normal'),
( 46.23639915, 10.0627701, 37., 36.17362905, 128.0636203, -5.10005333e+00, b'Normal'),
( 46.42636614, 6.62079505, 48.09999999, 39.80557109, 130.3500956, 2.44938240e+00, b'Normal'),
( 39.65690201, 16.20883944, 36.67485694, 23.44806258, 131.922009, -4.96897988e+00, b'Normal'),
( 45.57548229, 18.75913544, 33.77414297, 26.81634684, 116.7870069, 3.13190992e+00, b'Normal'),
( 66.50717065, 20.89767207, 31.72747130, 45.60950658, 120.9029049, 1.51720336e+00, b'Normal'),
( 82.90535054, 29.89411893, 58.25054221, 53.01123161, 110.7089577, 6.07933783e+00, b'Normal'),
( 50.67667667, 6.46150127, 35., 44.2151754, 116.5879699, -2.14710615e-01, b'Normal'),
( 89.01487529, 26.07598143, 69.02125897, 62.93889386, 111.4810746, 6.06150040e+00, b'Normal'),
( 54.60031622, 21.48897426, 29.36021618, 33.11134196, 118.3433212, -1.47106726e+00, b'Normal'),
( 34.38229939, 2.06268288, 32.39081996, 32.31961651, 128.3001991, -3.36551555e+00, b'Normal'),
( 45.07545026, 12.30695118, 44.58317718, 32.76849908, 147.8946372, -8.94170942e+00, b'Normal'),
( 47.90356517, 13.61660819, 36., 34.20887698, 117.4490622, -4.24539542e+00, b'Normal'),
( 53.93674778, 20.72149628, 29.22053381, 33.21525149, 114.365845, -4.21010392e-01, b'Normal'),
( 61.44659663, 22.6949683, 46.17034732, 38.75162833, 125.6707246, -2.70787952e+00, b'Normal'),
( 45.25279209, 8.69315736, 41.5831264, 36.55963472, 118.5458418, 2.14750167e-01, b'Normal'),
( 33.84164075, 5.07399141, 36.64123294, 28.76764934, 123.9452436, -1.99249089e-01, b'Normal'],
dtype=[('pelvic_incidence', '<f8'), ('pelvic_tilt', '<f8'), ('lumbar_lordosis_angle', '<f8'), ('sacral_slope', '<f8'), ('pelvic_rad
ius', '<f8'), ('degree_spondylolisthesis', '<f8'), ('class', 'S8')], Dataset: column_2C_weka
pelvic_incidence's type is numeric
pelvic_tilt's type is numeric
lumbar_lordosis_angle's type is numeric
sacral_slope's type is numeric
pelvic_radius's type is numeric
degree_spondylolisthesis's type is numeric
class's type is nominal, range is ('Abnormal', 'Normal')
)

[5]: df.shape

[5]: (310, 7)

[6]: df.columns

[6]: Index(['pelvic_incidence', 'pelvic_tilt', 'lumbar_lordosis_angle',
'sacral_slope', 'pelvic_radius', 'degree_spondylolisthesis', 'class'],
dtype='object')

[ ]:
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