



Bodyfat Percentage (Regression)

The goal of this study is to train a model in order to predict the percentage of bodyfat in men. The dataset used in this case study is found in <https://www.kaggle.com/datasets/fedesoriano/body-fat-prediction-dataset> and has 14 features and 251 samples. This dataset contains information on certain factors like Density determined from underwater weighing, age, weight, height, neck circumference, Chest circumference, Abdomen 2 circumference, Hip circumference, Thigh circumference, Knee circumference, Ankle circumference, Biceps (extended) circumference, Forearm circumference, Wrist circumference. The dataset contains no missing values and also all features are numerical, therefore there is no need to for transforming any of them.

Step 1: Import data from file

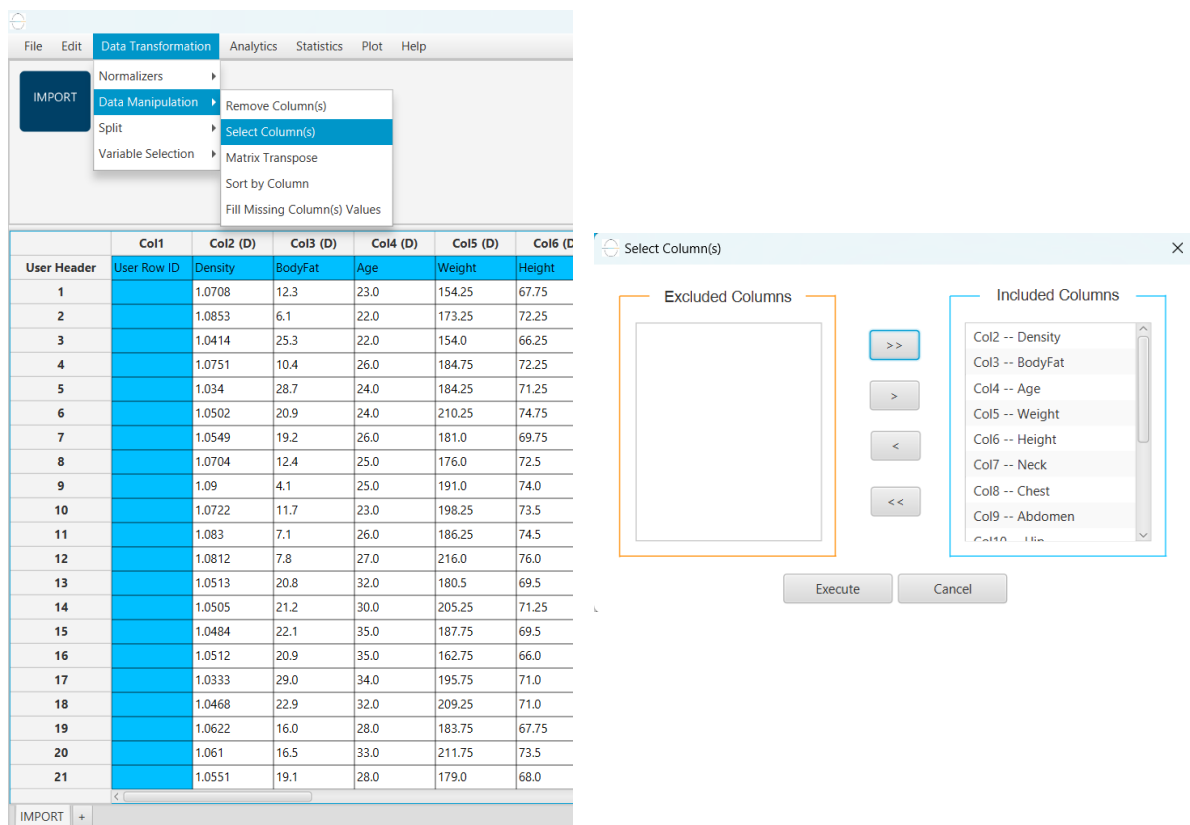
Right click on the input spreadsheet and choose the option "Import from file". Then navigate through your files to load the one with the housing price data.

The screenshot displays the Isalos Analytics Platform interface. The top section shows a spreadsheet with columns labeled Col1 to Col6. A right-click context menu is open over the spreadsheet, with options: 'Import from Spreadsheet', 'Import from file', 'Export Spread Sheet Data', and 'Clear Spreadsheet'. The bottom section shows the 'Import' dialog box with a list of files to import, including 'User Header', 'price', 'area', 'bedrooms', 'bathrooms', 'stories', 'manicad', 'guestroom', and 'basement'.

Step 2: Manipulate data

In order to use the data for training we have to exclude any columns that do not contain features. In our dataset there are no such columns. Therefore, we will include all columns in the training. We follow these steps to execute this:

- On the menu click on "Data Transformation" → "Data Manipulation" → "Select Column(s)"
- Select all columns.



The screenshot shows the Isalos Analytics Platform interface. The 'Data Transformation' menu is open, and the 'Select Column(s)' option is selected. The 'Select Column(s)' dialog box is displayed, showing a list of columns to be included in the training. The columns are: Col2 -- Density, Col3 -- BodyFat, Col4 -- Age, Col5 -- Weight, Col6 -- Height, Col7 -- Neck, Col8 -- Chest, Col9 -- Abdomen, and Col10 -- Waist. The 'Included Columns' list is empty, and the 'Excluded Columns' list is empty. The 'Execute' button is highlighted.

User Header	Col1	Col2 (D)	Col3 (D)	Col4 (D)	Col5 (D)	Col6 (D)
1	User Row ID	Density	BodyFat	Age	Weight	Height
2	1.0708	12.3	23.0	154.25	67.75	
3	1.0853	6.1	22.0	173.25	72.25	
4	1.0414	25.3	22.0	154.0	66.25	
5	1.0751	10.4	26.0	184.75	72.25	
6	1.034	28.7	24.0	184.25	71.25	
7	1.0502	20.9	24.0	210.25	74.75	
8	1.0549	19.2	26.0	181.0	69.75	
9	1.0704	12.4	25.0	176.0	72.5	
10	1.09	4.1	25.0	191.0	74.0	
11	1.0722	11.7	23.0	198.25	73.5	
12	1.083	7.1	26.0	186.25	74.5	
13	1.0812	7.8	27.0	216.0	76.0	
14	1.0513	20.8	32.0	180.5	69.5	
15	1.0505	21.2	30.0	205.25	71.25	
16	1.0484	22.1	35.0	187.75	69.5	
17	1.0512	20.9	35.0	162.75	66.0	
18	1.0333	29.0	34.0	195.75	71.0	
19	1.0468	22.9	32.0	209.25	71.0	
20	1.0622	16.0	28.0	183.75	67.75	
21	1.061	16.5	33.0	211.75	73.5	
22	1.0551	19.1	28.0	179.0	68.0	

The data will appear in the output spreadsheet.

Step 3: Split data

Create a new tab by pressing the "+" button on the bottom of the page with the name "TRAIN_TEST_SPLIT" which we will use for splitting to create the train and test set.

Import data into the input spreadsheet of the "TRAIN_TEST_SPLIT" tab from the output of the "IMPORT" tab by right-clicking on the input spreadsheet and then choosing "Import from Spreadsheet".

User Header	Col1	Col2 (D)	Col3 (D)	Col4 (D)	Col5 (D)	Col6 (D)	Col7 (D)	Col8 (D)	Col9 (D)	Col10
1	User Row ID	Density	BodyFat	Age	Weight	Height	Neck	Chest	Abdomen	Hip
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										

Split the dataset by choosing from the top ribbon: “Data Transformation” → “Split” → “Random Partitioning”. Then choose the “Training set percentage” and the column for the sampling as shown below:

File Edit **Data Transformation** Analytics Statistics Plot Help

IMPORT **Split** Random Partitioning

Random Partitioning

Training Set Percentage: 75

Time-based RNG Seed: 46934267465600

☒ Stratified sampling: Col6 -- Height

Execute Cancel

The results will appear on the output spreadsheet.

User Header	Col1	Col2 (D)	Col3 (D)	Col4 (D)	Col5 (D)	Col6 (D)	Col7 (D)	Col8 (D)	Col9 (D)
1	1.0708000	12.3000000	23.0000000	154.2500000	67.7500000	36.2000000	93.1000000	85.2000000	94.0000000
2	1.0853000	6.1000000	22.0000000	173.2500000	72.2500000	38.5000000	93.6000000	83.0000000	98.0000000
3	1.0414000	25.3000000	22.0000000	154.0000000	66.2500000	34.0000000	95.8000000	87.5000000	97.0000000
4	1.0751000	10.4000000	26.0000000	184.7500000	72.2500000	37.4000000	101.8000000	86.4000000	96.0000000
5	1.0340000	28.7000000	24.0000000	184.2500000	71.2500000	34.4000000	97.3000000	100.0000000	99.6000000
6	1.0502000	20.9000000	24.0000000	210.2500000	74.7500000	39.0000000	104.5000000	94.4000000	99.6000000
7	1.0549000	19.2000000	26.0000000	181.0000000	69.7500000	36.4000000	105.1000000	90.7000000	101.5000000
8	1.0704000	12.4000000	25.0000000	176.0000000	72.5000000	37.8000000	99.6000000	88.5000000	103.6000000
9	1.0900000	4.1000000	25.0000000	191.0000000	74.0000000	38.1000000	100.9000000	82.5000000	102.0000000
10	1.0722000	11.7000000	23.0000000	198.2500000	73.5000000	42.1000000	99.6000000	88.4000000	104.1000000
11	1.0830000	7.1000000	26.0000000	186.2500000	74.5000000	38.5000000	101.5000000	83.6000000	101.3000000
12	1.0812000	7.8000000	27.0000000	216.0000000	76.0000000	39.4000000	103.6000000	90.5000000	99.1000000
13	1.0513000	20.8000000	32.0000000	180.5000000	69.5000000	38.4000000	102.0000000	91.6000000	101.9000000
14	1.0505000	21.2000000	30.0000000	205.2500000	71.2500000	39.4000000	104.1000000	101.0000000	107.6000000
15	1.0484000	22.1000000	35.0000000	187.7500000	69.5000000	40.5000000	101.3000000	96.4000000	106.8000000
16	1.0512000	20.9000000	35.0000000	162.7500000	66.0000000	36.4000000	99.1000000	92.6000000	103.3000000
17	1.0333000	29.0000000	34.0000000	195.7500000	71.0000000	38.9000000	101.9000000	96.4000000	86.0000000
18	1.0468000	22.9000000	32.0000000	209.2500000	71.0000000	42.1000000	107.6000000	97.5000000	76.0000000
19	1.0622000	16.0000000	28.0000000	183.7500000	67.7500000	38.0000000	106.8000000	89.6000000	89.6000000
20	1.0610000	16.5000000	33.0000000	211.7500000	73.5000000	40.0000000	106.2000000	100.0000000	93.5000000
21	1.0551000	19.1000000	28.0000000	179.0000000	68.0000000	39.1000000	103.3000000	95.9000000	97.4000000

Step 4: Normalize the training set

Create a new tab by pressing the "+" button on the bottom of the page with the name "NORMALIZE_TRAIN_SET".

Import data into the input spreadsheet of the "NORMALIZE_TRAIN_SET" tab the train set from the output of the "TRAIN_TEST_SPLIT" tab by right-clicking on the input spreadsheet and then choosing "Import from Spreadsheet". From the available Select input tab options choose "TRAIN_TEST_SPLIT: Training Set".

User Header	Col1	Col2 (D)	Col3 (D)	Col4 (D)	Col5 (D)	Col6 (D)	Col7 (D)	Col8 (D)	Col9 (D)	Col10 (D)
1	1.0708000	12.3000000	23.0000000	154.2500000	67.7500000	36.2000000	93.1000000	85.2000000	94.0000000	94.0000000
2	1.0853000	6.1000000	22.0000000	173.2500000	72.2500000	38.5000000	93.6000000	83.0000000	98.0000000	98.0000000
3	1.0414000	25.3000000	22.0000000	154.0000000	66.2500000	34.0000000	95.8000000	87.5000000	97.0000000	97.0000000
4	1.0704000	12.4000000	25.0000000	176.0000000	72.5000000	37.8000000	99.6000000	88.5000000	103.6000000	99.6000000
5	1.0900000	4.1000000	25.0000000	191.0000000	74.0000000	38.1000000	100.9000000	82.5000000	102.0000000	100.9000000
6	1.0722000	11.7000000	23.0000000	198.2500000	73.5000000	42.1000000	99.6000000	88.4000000	104.1000000	99.6000000
7	1.0830000	7.1000000	26.0000000	186.2500000	74.5000000	38.5000000	101.5000000	83.6000000	101.3000000	101.5000000
8	1.0812000	7.8000000	27.0000000	216.0000000	76.0000000	39.4000000	103.6000000	90.5000000	99.1000000	103.6000000
9	1.0513000	20.8000000	32.0000000	180.5000000	69.5000000	38.4000000	102.0000000	91.6000000	101.9000000	102.0000000
10	1.0505000	21.2000000	30.0000000	205.2500000	71.2500000	39.4000000	104.1000000	101.0000000	107.6000000	104.1000000
11	1.0484000	22.1000000	35.0000000	187.7500000	69.5000000	40.5000000	101.3000000	96.4000000	106.8000000	101.3000000
12	1.0512000	20.9000000	35.0000000	162.7500000	66.0000000	36.4000000	99.1000000	92.6000000	103.3000000	99.1000000
13	1.0333000	29.0000000	34.0000000	195.7500000	71.0000000	38.9000000	101.9000000	96.4000000	86.0000000	101.9000000
14	1.0468000	22.9000000	32.0000000	209.2500000	71.0000000	42.1000000	107.6000000	97.5000000	76.0000000	107.6000000
15	1.0622000	16.0000000	28.0000000	183.7500000	67.7500000	38.0000000	106.8000000	89.6000000	89.6000000	106.8000000
16	1.0551000	19.1000000	28.0000000	179.0000000	68.0000000	39.1000000	103.3000000	95.9000000	97.4000000	103.3000000
17	1.0631000	15.6000000	31.0000000	140.2500000	68.2500000	33.9000000	86.0000000	76.4000000	94.0000000	86.0000000
18	1.0584000	17.7000000	32.0000000	148.7500000	70.0000000	35.5000000	86.7000000	80.0000000	93.0000000	86.7000000
19	1.0911000	3.7000000	27.0000000	159.2500000	71.5000000	35.7000000	89.6000000	79.7000000	96.0000000	89.6000000
20	1.0910000	3.7000000	27.0000000	133.2500000	64.7500000	36.4000000	93.5000000	73.9000000	88.0000000	93.5000000
21	1.0790000	8.8000000	29.0000000	160.7500000	69.0000000	36.7000000	97.4000000	83.5000000	97.4000000	97.4000000

Normalize the data using Z-score by browsing: "Data Transformation" → "Normalizers" → "Z-Score". Then select all columns except "BodyFat" and click "Execute".

User Header	Col1	Col2 (D)	Col3 (D)	Col4 (D)	Col5 (D)	Col6 (D)	Col7 (D)
1	1.0708000	12.3000000	23.0000000	154.2500000	67.7500000	36.2000000	36.2000000
2	1.0853000	6.1000000	22.0000000	173.2500000	72.2500000	38.5000000	38.5000000
3	1.0414000	25.3000000	22.0000000	154.0000000	66.2500000	34.0000000	34.0000000
4	1.0704000	12.4000000	25.0000000	176.0000000	72.5000000	37.8000000	37.8000000
5	1.0900000	4.1000000	25.0000000	191.0000000	74.0000000	38.1000000	38.1000000
6	1.0722000	11.7000000	23.0000000	198.2500000	73.5000000	42.1000000	42.1000000
7	1.0830000	7.1000000	26.0000000	186.2500000	74.5000000	38.5000000	38.5000000
8	1.0812000	7.8000000	27.0000000	216.0000000	76.0000000	39.4000000	39.4000000
9	1.0513000	20.8000000	32.0000000	180.5000000	69.5000000	38.4000000	38.4000000
10	1.0505000	21.2000000	30.0000000	205.2500000	71.2500000	39.4000000	39.4000000
11	1.0484000	22.1000000	35.0000000	187.7500000	69.5000000	40.5000000	40.5000000
12	1.0512000	20.9000000	35.0000000	162.7500000	66.0000000	36.4000000	36.4000000
13	1.0333000	29.0000000	34.0000000	195.7500000	71.0000000	38.9000000	38.9000000
14	1.0468000	22.9000000	32.0000000	209.2500000	71.0000000	42.1000000	42.1000000
15	1.0622000	16.0000000	28.0000000	183.7500000	67.7500000	38.0000000	38.0000000
16	1.0551000	19.1000000	28.0000000	179.0000000	68.0000000	39.1000000	39.1000000
17	1.0631000	15.6000000	31.0000000	140.2500000	68.2500000	33.9000000	33.9000000
18	1.0584000	17.7000000	32.0000000	148.7500000	70.0000000	35.5000000	35.5000000
19	1.0911000	3.7000000	27.0000000	159.2500000	71.5000000	35.7000000	35.7000000
20	1.0910000	3.7000000	27.0000000	133.2500000	64.7500000	36.4000000	36.4000000
21	1.0790000	8.8000000	29.0000000	160.7500000	69.0000000	36.7000000	36.7000000

Excluded Columns

Col3 -- BodyFat

Included Columns

Col2 -- Density

Col4 -- Age

Col5 -- Weight

Col6 -- Height

Col7 -- Neck

Col8 -- Chest

Col9 -- Abdomen

Col10 -- Hip

Execute

Cancel

The results will appear on the output spreadsheet.

User Header	Col1	Col2 (D)	Col3 (D)	Col4 (D)	Col5 (D)	Col6 (D)	Col7 (D)	Col8 (D)	Col9 (D)	Col10 (D)
1	1.0708000	12.3000000	23.0000000	154.2500000	67.7500000	36.2000000	36.2000000	93.1000000	85.2000000	94.1000000
2	1.0853000	6.1000000	22.0000000	173.2500000	72.2500000	38.5000000	38.5000000	93.6000000	83.0000000	98.1000000
3	1.0414000	25.3000000	22.0000000	154.0000000	66.2500000	34.0000000	34.0000000	95.8000000	87.9000000	98.1000000
4	1.0704000	12.4000000	25.0000000	176.0000000	72.5000000	37.8000000	37.8000000	99.6000000	88.5000000	97.1000000
5	1.0900000	4.1000000	25.0000000	191.0000000	74.0000000	38.1000000	38.1000000	100.9000000	82.5000000	99.1000000
6	1.0722000	11.7000000	23.0000000	198.2500000	73.5000000	42.1000000	42.1000000	99.6000000	88.6000000	10.1000000
7	1.0830000	7.1000000	26.0000000	186.2500000	74.5000000	38.5000000	38.5000000	101.5000000	83.6000000	98.1000000
8	1.0812000	7.8000000	27.0000000	216.0000000	76.0000000	39.4000000	39.4000000	103.6000000	90.9000000	10.1000000
9	1.0513000	20.8000000	32.0000000	180.5000000	69.5000000	38.4000000	38.4000000	102.0000000	91.6000000	10.1000000
10	1.0505000	21.2000000	30.0000000	205.2500000	71.2500000	39.4000000	39.4000000	104.1000000	101.8000000	10.1000000
11	1.0484000	22.1000000	35.0000000	187.7500000	69.5000000	40.5000000	40.5000000	101.3000000	96.4000000	10.1000000
12	1.0512000	20.9000000	35.0000000	162.7500000	66.0000000	36.4000000	36.4000000	99.1000000	92.8000000	99.1000000
13	1.0333000	29.0000000	34.0000000	195.7500000	71.0000000	38.9000000	38.9000000	101.9000000	96.4000000	10.1000000
14	1.0468000	22.9000000	32.0000000	209.2500000	71.0000000	42.1000000	42.1000000	107.6000000	97.5000000	10.1000000
15	1.0622000	16.0000000	28.0000000	183.7500000	67.7500000	38.0000000	38.0000000	106.8000000	89.6000000	10.1000000
16	1.0551000	19.1000000	28.0000000	179.0000000	68.0000000	39.1000000	39.1000000	103.3000000	95.9000000	10.1000000
17	1.0631000	15.6000000	31.0000000	140.2500000	68.2500000	33.9000000	33.9000000	86.0000000	76.4000000	93.1000000
18	1.0584000	17.7000000	32.0000000	148.7500000	70.0000000	35.5000000	35.5000000	86.7000000	80.0000000	96.1000000
19	1.0911000	3.7000000	27.0000000	159.2500000	71.5000000	35.7000000	35.7000000	89.6000000	79.7000000	96.1000000
20	1.0910000	3.7000000	27.0000000	133.2500000	64.7500000	36.4000000	36.4000000	93.5000000	73.9000000	88.1000000
21	1.0790000	8.8000000	29.0000000	160.7500000	69.0000000	36.7000000	36.7000000	97.4000000	83.5000000	98.1000000

Step 5: Normalize the test set

Create a new tab by pressing the "+" button on the bottom of the page with the name "NORMALIZE_TEST_SET".

Import data into the input spreadsheet of the "NORMALIZE_TEST_SET" tab the test set from the output of the "TRAIN_TEST_SPLIT" tab by right-clicking on the input spreadsheet and then choosing "Import from Spreadsheet". From the available Select input tab options choose "TRAIN_TEST_SPLIT: Test Set".

User Header	Col1	Col2 (D)	Col3 (D)	Col4 (D)	Col5 (D)	Col6 (D)	Col7 (D)	Col8 (D)
1		1.0751000	10.4000000	26.0000000	184.7500000	72.2500000	37.4000000	101.8000000
2		1.0340000	28.7000000	24.0000000	184.2500000	71.2500000	34.4000000	97.3000000
3		1.0502000	20.9000000	24.0000000	210.2500000	74.7500000	39.0000000	104.5000000
4		1.0549000	19.2000000	26.0000000	181.0000000	69.7500000	36.4000000	105.1000000
5		1.0610000	16.5000000	33.0000000	211.7500000	73.5000000	40.0000000	106.2000000
6		1.0640000	15.2000000	28.0000000	200.5000000	69.7500000	41.3000000	111.4000000
7		1.0668000	14.0000000	28.0000000	151.2500000	67.7500000	34.5000000	90.2000000
8		1.0811000	7.9000000	34.0000000	131.5000000	67.5000000	36.2000000	88.6000000
9		1.0468000	22.9000000	31.0000000	148.0000000	67.5000000	38.8000000	97.4000000
10		1.0719000	11.8000000	27.0000000	168.0000000	71.2500000	38.1000000	93.0000000
11		1.0438000	24.2000000	40.0000000	202.2500000	70.0000000	38.5000000	106.5000000
12		1.0346000	28.4000000	50.0000000	196.7500000	68.2500000	42.1000000	105.6000000
13		1.0217000	34.5000000	45.0000000	262.7500000	68.7500000	43.2000000	128.3000000
14		1.0665000	5.6000000	39.0000000	148.5000000	71.2500000	34.6000000	89.8000000
15		1.0678000	13.6000000	45.0000000	135.7500000	68.5000000	32.8000000	92.3000000
16		1.0756000	10.2000000	47.0000000	158.2500000	72.2500000	34.9000000	90.2000000
17		1.0848000	6.3000000	49.0000000	152.7500000	73.5000000	35.1000000	93.3000000
18		1.0906000	3.9000000	42.0000000	136.2500000	67.5000000	37.8000000	87.6000000
19		1.0524000	20.4000000	58.0000000	181.5000000	68.0000000	39.1000000	100.0000000
20		1.0356000	28.0000000	62.0000000	201.2500000	69.5000000	40.5000000	111.5000000
21		1.0403000	25.8000000	61.0000000	178.0000000	67.0000000	37.4000000	105.3000000

Normalize the test set using the existing normalizer of the training set by browsing: "Analytics" → "Existing Model Utilization" → "Model (from Tab:) NORMALIZE_TRAIN_SET".

User Header	Col1	Col2 (D)	Col3 (D)	Col4 (D)	Col5 (D)	Col6 (D)
1		1.0751000	10.4000000	26.0000000	184.7500000	72.2500000
2		1.0340000	28.7000000	24.0000000	184.2500000	71.2500000
3		1.0502000	20.9000000	24.0000000	210.2500000	74.7500000
4		1.0549000	19.2000000	26.0000000	181.0000000	69.7500000
5		1.0610000	16.5000000	33.0000000	211.7500000	73.5000000
6		1.0640000	15.2000000	28.0000000	200.5000000	69.7500000
7		1.0668000	14.0000000	28.0000000	151.2500000	67.7500000
8		1.0811000	7.9000000	34.0000000	131.5000000	67.5000000
9		1.0468000	22.9000000	31.0000000	148.0000000	67.5000000
10		1.0719000	11.8000000	27.0000000	168.0000000	71.2500000
11		1.0438000	24.2000000	40.0000000	202.2500000	70.0000000
12		1.0346000	28.4000000	50.0000000	196.7500000	68.2500000
13		1.0217000	34.5000000	45.0000000	262.7500000	68.7500000
14		1.0665000	5.6000000	39.0000000	148.5000000	71.2500000
15		1.0678000	13.6000000	45.0000000	135.7500000	68.5000000
16		1.0756000	10.2000000	47.0000000	158.2500000	72.2500000
17		1.0848000	6.3000000	49.0000000	152.7500000	73.5000000
18		1.0906000	3.9000000	42.0000000	136.2500000	67.5000000
19		1.0524000	20.4000000	58.0000000	181.5000000	68.0000000
20		1.0356000	28.0000000	62.0000000	201.2500000	69.5000000
21		1.0403000	25.8000000	61.0000000	178.0000000	67.0000000

Existing Model Execution

Model (from Tab:) NORMALIZE_TR...

Type Z Score Normalizer Model

Description

Model Input

Header -> Datatype

Density -> Double

Age -> Double

Weight -> Double

Height -> Double

Neck -> Double

Chest -> Double

Abdomen -> Double

Hip -> Double

Thigh -> Double

Transfer Column(s) to Output

Execute

Cancel

The results will appear on the output spreadsheet.

File

Edit

Data Transformation

Analytics

Statistics

Plot

Help

IMPORT

TRAIN_TEST_SPLIT

NORMALIZE_TRAIN_SET

NORMALIZE_TEST_SET

	Col1	Col2 (D)	Col3 (D)	Col4 (D)	Col5 (D)	Col6 (D)	Col7 (D)	Col8 (D)
User Header	User Row ID	Density	BodyFat	Age	Weight	Height	Neck	Chest
1	1	1.0751000	10.4000000	26.0000000	184.7500000	72.2500000	37.4000000	101.8000000
2	2	1.0340000	28.7000000	24.0000000	184.2500000	71.2500000	34.4000000	97.3000000
3	3	1.0502000	20.9000000	24.0000000	210.2500000	74.7500000	39.0000000	104.5000000
4	4	1.0549000	19.2000000	26.0000000	181.0000000	69.7500000	36.4000000	105.1000000
5	5	1.0610000	16.5000000	33.0000000	211.7500000	73.5000000	40.0000000	106.2000000
6	6	1.0640000	15.2000000	28.0000000	200.5000000	69.7500000	41.3000000	111.4000000
7	7	1.0668000	14.0000000	28.0000000	151.2500000	67.7500000	34.5000000	90.2000000
8	8	1.0811000	7.9000000	34.0000000	131.5000000	67.5000000	36.2000000	88.6000000
9	9	1.0468000	22.9000000	31.0000000	148.0000000	67.5000000	38.8000000	97.4000000
10	10	1.0719000	11.8000000	27.0000000	168.0000000	71.2500000	38.1000000	93.0000000
11	11	1.0438000	24.2000000	40.0000000	202.2500000	70.0000000	38.5000000	106.5000000
12	12	1.0346000	28.4000000	50.0000000	196.7500000	68.2500000	42.1000000	105.6000000
13	13	1.0217000	34.5000000	45.0000000	262.7500000	68.7500000	43.2000000	128.3000000
14	14	1.0665000	5.6000000	39.0000000	148.5000000	71.2500000	34.6000000	89.8000000
15	15	1.0678000	13.6000000	45.0000000	135.7500000	68.5000000	32.8000000	92.3000000
16	16	1.0756000	10.2000000	47.0000000	158.2500000	72.2500000	34.9000000	90.2000000
17	17	1.0848000	6.3000000	49.0000000	152.7500000	73.5000000	35.1000000	93.3000000
18	18	1.0906000	3.9000000	42.0000000	136.2500000	67.5000000	37.8000000	87.6000000
19	19	1.0524000	20.4000000	58.0000000	181.5000000	68.0000000	39.1000000	100.0000000
20	20	1.0356000	28.0000000	62.0000000	201.2500000	69.5000000	40.5000000	111.5000000
21	21	1.0403000	25.8000000	61.0000000	178.0000000	67.0000000	37.4000000	105.3000000

	Col1	Col2 (D)	Col3 (D)	Col4 (D)	Col5 (D)	Col6 (D)	Col7 (D)	Col8 (D)
User Header	User Row ID	Density	BodyFat	Age	Weight	Height	Neck	Chest
1	1	1.0789652	10.4000000	-1.4912910	0.1704366	0.5630251	-0.2861856	0.0773428
2	2	-1.0808837	28.7000000	-1.6454360	0.1535369	0.3099651	-1.5210958	-0.4591990
3	3	-0.2295564	20.9000000	-1.6454360	1.0323216	1.1956753	0.3724333	0.3992679
4	4	0.0174336	19.2000000	-1.4912910	0.0436889	0.0696250	-0.6978223	0.4708066
5	5	0.3379951	16.5000000	-0.9517838	1.0830207	0.8793502	0.7840700	0.6019614
6	6	0.4956483	15.2000000	-1.3371461	0.7027773	-0.0696250	1.3191978	1.2219653
7	7	0.6427913	14.0000000	-1.3371461	-0.9618435	-0.5757451	-1.4799322	-1.3057428
8	8	1.3942716	7.9000000	-0.8747113	-1.6293819	-0.6390101	-0.7801497	-1.4965132
9	9	-0.4082301	22.9000000	-1.1059287	-0.10716916	-0.6390101	0.2901059	-0.4472759
10	10	0.9108018	11.8000000	-1.4142186	-0.3957034	0.3099651	0.0019602	-0.9718946
11	11	-0.5658833	24.2000000	-0.4122765	0.7619263	-0.0063600	0.1666149	0.6377309
12	12	-1.0493531	28.4000000	0.3584481	0.5760295	-0.4492151	1.6485072	0.5304225
13	13	-1.7272619	34.5000000	-0.0269142	2.8067905	0.3226850	2.1013077	3.2369779
14	14	0.6270260	5.6000000	-0.4893490	-1.054719	0.3099651	-1.4387685	-1.3534354
15	15	0.6953424	13.6000000	-0.0269142	-1.4857344	-0.3859501	-2.1797147	-1.0553566
16	16	1.1052400	10.2000000	0.1272307	-0.7252447	0.5630251	-1.3152775	-1.3057428
17	17	1.5887106	6.3000000	0.2813757	-0.9111444	0.8793502	-1.2329501	-0.9361251
18	18	1.8935068	3.9000000	-0.2581316	-1.4668847	-0.6390101	-0.1215309	-1.6157448
19	19	-0.1139441	20.4000000	0.9750279	0.0588266	-0.5124801	0.4135969	-0.1372740
20	20	-0.9968020	28.0000000	1.2833177	0.7281269	-0.1328900	0.9898884	1.2338885
21	21	-0.7498120	25.8000000	1.2062453	-0.0577094	-0.7655401	-0.2861856	0.4946531

Step 6: Train the model

Create a new tab by pressing the "+" button on the bottom of the page with the name "TRAIN_MODEL(.fit)". Import data into the input spreadsheet of the "TRAIN_MODEL(.fit)" tab from the output of the "NORMALIZE_TRAIN_SET" tab by right-clicking on the input spreadsheet and then choosing "Import from SpreadSheet".

FileEditData TransformationAnalyticsStatisticsPlotHelp

IMPORT

TRAIN_TEST_SPLIT

NORMALIZE_TRAIN_SET

TRAIN_MODEL(.fit)

NORMALIZE_TEST_SET

User Header	Col1	Col2 (D)	Col3 (D)	Col4 (D)	Col5 (D)	Col6 (D)	Col7 (D)	Col8 (D)
1	User Row ID	Density	BodyFat	Age	Weight	Height	Neck	Chest
2	1	0.8529956	12.3000000	-1.7225084	-0.8604453	-0.5757451	-0.7801497	-0.9599714
3	2	1.6149861	6.1000000	-1.7995809	-0.2182566	0.5630251	0.1666149	-0.9003557
4	3	-0.6920058	25.3000000	-1.7995809	-0.8688952	-0.9553352	-1.6857505	-0.6380463
5	4	0.8319752	12.4000000	-1.5683635	-0.1253082	0.6262902	-0.1215309	-0.1849666
6	5	1.8619762	4.1000000	-1.5683635	0.3816829	1.0058802	0.0019602	-0.0299656
7	6	0.9265671	11.7000000	-1.7225084	0.6267287	0.8793502	1.6485072	-0.1849666
8	7	1.4941187	7.1000000	-1.4912910	0.2211358	1.1324103	0.1666149	0.0415733
9	8	1.3995267	7.8000000	-1.4142186	1.2266682	1.5120004	0.5370880	0.2919595
10	9	-0.1717502	20.8000000	-1.0288563	0.0267892	-0.1328900	0.1254512	0.1011891
11	10	-0.2137911	21.2000000	-1.1830012	0.8633245	0.3099651	0.5370880	0.3515753
12	11	-0.3241483	22.1000000	-0.7976389	0.2718349	-0.1328900	0.9898884	0.0177270
13	12	-0.1770053	20.9000000	-0.7976389	-0.5731503	-1.0186002	-0.6978223	-0.2445823
14	13	-1.1176695	29.0000000	-0.8747113	0.5422301	0.2467001	0.3312696	0.0892659
15	14	-0.4082301	22.9000000	-1.0288563	0.9985222	0.2467001	1.6485072	0.7688856
16	15	0.4010564	16.0000000	-1.3371461	0.1366372	-0.5757451	-0.0392035	0.6735003
17	16	0.0279438	19.1000000	-1.3371461	-0.0239100	-0.5124801	0.4135969	0.2561900
18	17	0.4483524	15.6000000	-1.1059287	-1.3336370	-0.4492151	-1.7269142	-1.8065152
19	18	0.2013624	17.7000000	-1.0288563	-1.0463421	-0.0063600	-1.0682954	-1.7230531
20	19	1.9197823	3.7000000	-1.4142186	-0.6914483	0.3732301	-0.9859681	-1.3772817
21	20	1.9145272	3.7000000	-1.4142186	-1.5702329	-1.3349253	-0.6978223	-0.9122788

User Header	Col1	Col2	Col3	Col4	Col5	Col6	Col7	Col8	Col9
1	User Row ID								
2	1								
3	2								
4	3								
5	4								
6	5								
7	6								
8	7								
9	8								
10	9								
11	10								
12	11								
13	12								
14	13								
15	14								
16	15								
17	16								
18	17								
19	18								
20	19								
21	20								
22	21								
23	22								

IMPORTTRAIN_TEST_SPLITNORMALIZE_TRAIN_SETNORMALIZE_TEST_SETTRAIN_MODEL(.fit)

Use the k Nearest Neighbors (kNN) method to train and fit the model by browsing: "Analytics" → "Regression" → "k Nearest Neighbors (kNN)" and set the "Target Column" as the column corresponding to "BodyFat" and the "Number of Neighbors" to 5.

User Header	Col1	Col2 (D)	Col3 (D)	Col4 (D)	Col5 (D)	Col6 (D)	Col7 (D)
1	0.8529956	12.3000000	-1.7225084	-0.8604453	-0.5757451	-0.7801497	
2	1.6149861	6.1000000	-1.7995809	-0.2182566	0.5630251	0.1666149	
3	-0.6920058	25.3000000	-1.7995809	-0.8688952	-0.9553352	-1.6857505	
4	0.8319752	12.4000000	-1.5683635	-0.1253082	0.6262902	-0.1215309	
5	1.8619762	4.1000000	-1.5683635	0.3816829	1.0058802	0.0019602	
6	0.9265671	11.7000000	-1.7225084	0.6267287	0.8793502	1.6485072	
7	1.4941187	7.1000000	-1.4912910	0.2211358	1.1324103	0.1666149	
8	1.3995267	7.8000000	-1.4142186	1.2266682	1.5120004	0.5370880	
9	-0.1717502	20.8000000	-1.0288563	0.0267892	-0.1328900	0.1254512	
10	-0.2137911	21.2000000	-1.1830012	0.8633245	0.3099651	0.5370880	
11	-0.3241483	22.1000000	-0.7976389	0.2718349	-0.1328900	0.9898884	
12	-0.1770053	20.9000000	-0.7976389	-0.5731503	-1.0186002	-0.6978223	
13	-1.1176695	29.0000000	-0.8747113	0.5422301	0.2467001	0.3312696	
14	-0.4082301	22.9000000	-1.0288563	0.9985222	0.2467001	1.6485072	
15	0.4010564	16.0000000	-1.3371461	0.1366372	-0.5757451	-0.0392035	
16	0.0279438	19.1000000	-1.3371461	-0.0239100	-0.5124801	0.4135969	
17	0.4483524	15.6000000	-1.1059287	-1.336370	-0.4492151	-1.7269142	
18	0.2013624	17.7000000	-1.0288563	-1.0463421	-0.0063600	-1.0682954	
19	1.9197823	3.7000000	-1.4142186	-0.6914483	0.3732301	-0.9859681	
20	1.9145272	3.7000000	-1.4142186	-1.5702329	-1.3349253	-0.6978223	

kNN Regression Model

✕

Target Column

Col3 -- BodyFat

Number of Neighbors

5

Execute

Cancel

The predictions will appear on the output spreadsheet.

User Header	Col1	Col2 (D)	Col3 (D)	Col4 (D)	Col5 (D)	Col6 (D)	Col7 (D)	Col8 (D)
1	0.8529956	12.3000000	-1.7225084	-0.8604453	-0.5757451	-0.7801497	-0.9599714	
2	1.6149861	6.1000000	-1.7995809	-0.2182566	0.5630251	0.1666149	-0.9003557	
3	-0.6920058	25.3000000	-1.7995809	-0.8688952	-0.9553352	-1.6857505	-0.6380463	
4	0.8319752	12.4000000	-1.5683635	-0.1253082	0.6262902	-0.1215309	-0.1849666	
5	1.8619762	4.1000000	-1.5683635	0.3816829	1.0058802	0.0019602	-0.0299656	
6	0.9265671	11.7000000	-1.7225084	0.6267287	0.8793502	1.6485072	-0.1849666	
7	1.4941187	7.1000000	-1.4912910	0.2211358	1.1324103	0.1666149	0.0415733	
8	1.3995267	7.8000000	-1.4142186	1.2266682	1.5120004	0.5370880	0.2919595	
9	-0.1717502	20.8000000	-1.0288563	0.0267892	-0.1328900	0.1254512	0.1011891	
10	-0.2137911	21.2000000	-1.1830012	0.8633245	0.3099651	0.5370880	0.3515753	
11	-0.3241483	22.1000000	-0.7976389	0.2718349	-0.1328900	0.9898884	0.0177270	
12	-0.1770053	20.9000000	-0.7976389	-0.5731503	-1.0186002	-0.6978223	-0.2445823	
13	-1.1176695	29.0000000	-0.8747113	0.5422301	0.2467001	0.3312696	0.0892659	
14	-0.4082301	22.9000000	-1.0288563	0.9985222	0.2467001	1.6485072	0.7688856	
15	0.4010564	16.0000000	-1.3371461	0.1366372	-0.5757451	-0.0392035	0.6735003	
16	0.0279438	19.1000000	-1.3371461	-0.0239100	-0.5124801	0.4135969	0.2561900	
17	0.4483524	15.6000000	-1.1059287	-1.336370	-0.4492151	-1.7269142	-1.8065152	
18	0.2013624	17.7000000	-1.0288563	-1.0463421	-0.0063600	-1.0682954	-1.7230531	
19	1.9197823	3.7000000	-1.4142186	-0.6914483	0.3732301	-0.9859681	-1.3772817	
20	1.9145272	3.7000000	-1.4142186	-1.5702329	-1.3349253	-0.6978223	-0.9122788	

Step 7: Validate the model

Create a new tab by pressing the "+" button on the bottom of the page with the name "VALIDATE_MODEL(.predict)".

Import data into the input spreadsheet of the "VALIDATE_MODEL(.predict)" tab from the output of the "NORMALIZE _TEST_SET" tab by right-clicking on the input spreadsheet and then choosing "Import from Spreadsheet".

The screenshot shows the Isalos Analytics Platform interface. At the top, there is a menu bar with options: File, Edit, Data Transformation, Analytics, Statistics, Plot, Help. Below the menu bar, there is a workflow diagram with nodes: IMPORT, TRAIN_TEST_SPLIT, NORMALIZE_TRAIN_SET, TRAIN_MODEL.fit, NORMALIZE_TEST_SET, and VALIDATE_MODEL.predict. The main area displays a data table with 17 rows and 10 columns. The columns are labeled: User Header, User Row ID, Density, BodyFat, Age, Weight, Height, Neck, Chest, and Abdom. The data is as follows:

User Header	User Row ID	Density	BodyFat	Age	Weight	Height	Neck	Chest	Abdom
1	1.0789652	10.4000000	-1.4912910	0.1704366	0.5630251	-0.2861856	0.0773428	-0.6090	
2	-1.0808837	28.7000000	-1.6454360	0.1535369	0.3099651	-1.5210958	-0.4591990	0.6458	
3	-0.2295564	20.9000000	-1.6454360	1.0323216	1.1956753	0.3724333	0.3992679	0.1291	
4	0.0174336	19.2000000	-1.4912910	0.0436889	-0.0696250	-0.6978223	0.4708068	-0.2122	
5	0.3379951	16.5000000	-0.9517838	1.0830207	0.8793502	0.7840700	0.6019614	0.6920	
6	0.4956483	15.2000000	-1.3371461	0.7027773	-0.0696250	1.3191978	1.2219653	0.5351	
7	0.6427913	14.0000000	-1.3371461	-0.9618435	-0.5757451	-1.4799322	-1.3057428	-1.5410	
8	1.3942716	7.9000000	-0.8747113	-1.6293819	-0.6390101	-0.7801497	-1.4965132	-1.6979	
9	-0.4082301	22.9000000	-1.1059287	-1.0716916	-0.6390101	0.2901059	-0.4472759	-0.3968	
10	0.9108018	11.8000000	-1.4142186	-0.3957034	0.3099651	0.0019602	-0.9718946	-1.2826	
11	-0.5658833	24.2000000	-0.4122765	0.7619263	-0.0063600	0.1666149	0.6377309	0.7289	
12	-1.0493531	28.4000000	0.3584481	0.57160295	-0.4492151	1.6485072	0.5304225	0.5351	
13	-1.7272619	34.5000000	-0.0269142	2.8067905	-0.3226850	2.1013077	3.2369779	3.0635	
14	0.6270260	5.6000000	-0.4893490	-1.0547919	0.3099651	-1.4387685	-1.3534354	-1.2457	
15	0.6953424	13.6000000	-0.0269142	-1.4857344	-0.3859501	-2.1797147	-1.0553566	-0.8858	
16	1.1052408	10.2000000	0.1272307	-0.7252477	0.5630251	-1.3152775	-1.3057428	-0.5813	
17	1.5887106	6.3000000	0.2813757	-0.9111444	0.8793502	-1.2329501	-0.9361251	-1.2365	

To validate the model browse: "Analytics" → "Existing Model Utilization". Then choose Model "(from Tab:) TRAIN_MODEL (.fit)". and transfer the "BodyFat" column in the output.

The screenshot shows the 'Existing Model Execution' dialog box in the Isalos Analytics Platform. The 'Model' dropdown is set to '(from Tab:) TRAIN_MODEL(...)'. The 'Type' is set to 'kNN Model'. The 'Description' field is empty. The 'Model Input' section lists the following columns and their datatypes: Header (Datatype), Density (Double), Age (Double), Weight (Double), Height (Double), Neck (Double), Chest (Double), Abdomen (Double), and Hip (Double). The 'Transfer Column(s) to Output' checkbox is checked. The 'Excluded Columns' list includes: Col2 -- Density, Col4 -- Age, Col5 -- Weight, Col6 -- Height, Col7 -- Neck, Col8 -- Chest, Col9 -- Abdomen, and Col10 -- Hip. The 'Included Columns' list includes: Col3 -- BodyFat. The 'Execute' and 'Cancel' buttons are at the bottom.

The predictions will appear on the output spreadsheet.

The screenshot shows the Isalos Analytics Platform interface. At the top, there is a menu bar with options: File, Edit, Data Transformation, Analytics, Statistics, Plot, Help. Below the menu bar is a workflow diagram with nodes: IMPORT, TRAIN_TEST_SPLIT, NORMALIZE_TRAIN_SET, TRAIN_MODEL(fit), NORMALIZE_TEST_SET, and VALIDATE_MODEL(predict). The main area displays a data table with 17 rows and 19 columns. The columns are labeled: User Header, Col1, Col2 (D), Col3 (D), Col4 (D), Col5 (D), Col6 (D), Col7 (D), Col8 (D), Col9 (D), Col10 (D), Col11 (D), Col12 (D), Col13 (D), Col14 (D), Col15 (D), Col16 (D), Col17 (D), Col18 (D), Col19 (D). The data is organized into two main sections: a left section with 17 rows of numerical data, and a right section with 19 rows of data including 'NN Prediction', 'Closest NN1', 'Distance from NN1', 'Closest NN2', 'Distance from NN2', 'Closest NN3', and 'Distance from NN3'.

User Header	Col1	Col2 (D)	Col3 (D)	Col4 (D)	Col5 (D)	Col6 (D)	Col7 (D)	Col8 (D)	Col9 (D)	Col10 (D)	Col11 (D)	Col12 (D)	Col13 (D)	Col14 (D)	Col15 (D)	Col16 (D)	Col17 (D)	Col18 (D)	Col19 (D)
1	1.078952	10.400000	-1.491291	0.170436	0.563025	-0.286186	0.077342	-0.6090											
2	-1.080837	28.700000	-1.645436	0.153369	0.309965	-1.521095	-0.459199	0.6458											
3	-0.229556	20.900000	-1.645436	1.032321	1.195675	0.372433	0.399267	0.1291											
4	0.017436	19.200000	-1.491291	0.043689	-0.069625	-0.697823	0.470806	-0.2122											
5	0.337995	16.500000	-0.951783	1.083027	0.879350	0.784070	0.601964	0.6920											
6	0.495648	15.200000	-1.337146	0.702777	-0.069625	1.319197	1.221963	0.5351											
7	0.642791	14.000000	-1.337146	-0.961845	-0.575745	-1.479922	-1.305742	-1.5410											
8	1.394271	7.900000	-0.874713	-1.629381	-0.639010	-0.780149	-1.496512	-1.6975											
9	-0.406230	22.900000	-1.105928	-1.071691	-0.639010	0.290105	-0.447275	-0.3966											
10	0.910801	11.800000	-1.412186	-0.395703	0.309965	0.001960	-0.971896	-1.2826											
11	-0.565833	24.200000	-0.412276	0.761926	-0.006360	0.166614	0.637730	0.7289											
12	-1.049353	28.400000	0.358481	0.576029	-0.449215	1.648502	0.530425	0.5351											
13	-1.727619	34.500000	-0.026912	2.806795	-0.322680	2.101307	3.236977	3.0635											
14	0.627026	5.600000	-0.489340	-1.054791	0.309965	-1.438765	-1.353434	-1.2457											
15	0.695342	13.600000	-0.026912	-1.485734	-0.389590	-2.179717	-1.053556	-0.8858											
16	1.105240	10.200000	0.127230	-0.725477	0.563025	-1.315275	-1.305742	-0.5813											
17	1.588710	6.300000	0.281375	-0.911144	0.879350	-1.232950	-0.936125	-1.2365											

Step 8: Statistics calculation

Create a new tab by pressing the "+" button on the bottom of the page with the name "STATISTICS_ACCURACIES".

Import data into the input spreadsheet of the "STATISTICS_ACCURACIES" tab from the output of the "VALIDATE_MODEL(predict)" tab by right-clicking on the input spreadsheet and then choosing "Import from Spreadsheet".

The screenshot shows the Isalos Analytics Platform interface. At the top, there is a menu bar with options: File, Edit, Data Transformation, Analytics, Statistics, Plot, Help. Below the menu bar is a workflow diagram with nodes: IMPORT, TRAIN_TEST_SPLIT, NORMALIZE_TRAIN_SET, TRAIN_MODEL(fit), NORMALIZE_TEST_SET, VALIDATE_MODEL(predict), and STATISTICS_ACCURACIES. The main area displays a data table with 17 rows and 19 columns. The columns are labeled: User Header, Col1, Col2 (D), Col3 (S), Col4 (D), Col5 (S), Col6 (D), Col7 (S), Col8 (D), Col9 (D), Col10 (D), Col11 (D), Col12 (D), Col13 (D), Col14 (D), Col15 (D), Col16 (D), Col17 (D), Col18 (D), Col19 (D). The data is organized into two main sections: a left section with 17 rows of numerical data, and a right section with 19 rows of data including 'NN Prediction', 'Closest NN1', 'Distance from NN1', 'Closest NN2', 'Distance from NN2', 'Closest NN3', and 'Distance from NN3'.

User Header	Col1	Col2 (D)	Col3 (S)	Col4 (D)	Col5 (S)	Col6 (D)	Col7 (S)	Col8 (D)	Col9 (D)	Col10 (D)	Col11 (D)	Col12 (D)	Col13 (D)	Col14 (D)	Col15 (D)	Col16 (D)	Col17 (D)	Col18 (D)	Col19 (D)
1	9.331202	Entry 107	0.167639	Entry 4	0.221915	Entry 116	0.235015	Er											
2	25.197444	Entry 117	0.351677	Entry 101	0.430176	Entry 86	0.430855	Er											
3	21.951938	Entry 10	0.229406	Entry 114	0.278954	Entry 6	0.310347	Er											
4	19.956376	Entry 117	0.226059	Entry 128	0.233362	Entry 9	0.239496	Er											
5	21.740885	Entry 10	0.213216	Entry 139	0.268945	Entry 11	0.290251	Er											
6	20.741373	Entry 123	0.299083	Entry 125	0.328015	Entry 14	0.364276	Er											
7	10.565567	Entry 106	0.227696	Entry 18	0.239231	Entry 1	0.247531	Er											
8	9.197549	Entry 121	0.237328	Entry 36	0.252425	Entry 20	0.255868	Er											
9	19.263381	Entry 84	0.266291	Entry 124	0.276021	Entry 12	0.305897	Er											
10	10.731859	Entry 2	0.255291	Entry 4	0.310021	Entry 113	0.317443	Er											
11	24.130840	Entry 139	0.138995	Entry 141	0.208691	Entry 161	0.224234	Er											
12	28.278949	Entry 45	0.256912	Entry 161	0.294062	Entry 44	0.297368	Er											
13	30.930127	Entry 25	0.508143	Entry 143	0.614770	Entry 180	0.732564	Er											
14	13.470291	Entry 142	0.161076	Entry 155	0.220327	Entry 18	0.240136	Er											
15	10.929681	Entry 121	0.269297	Entry 50	0.282916	Entry 36	0.290489	Er											
16	11.746971	Entry 155	0.215683	Entry 97	0.294841	Entry 36	0.299577	Er											
17	13.873842	Entry 47	0.400345	Entry 91	0.419543	Entry 154	0.425625	Er											

Calculate the statistical metrics for the regression by browsing: "Statistics" → "Model Metrics" → "Regression Metrics".

The screenshot shows the 'Statistics' menu with options: Domain - APD, Model Metrics, Probability Distribution Functions, Descriptive Statistics, Confidence Intervals, Hypothesis Testing, Weight Cases, Random Number Generator, and Design of Experiments. The 'Model Metrics' option is selected, leading to a 'Regression Metrics' dialog box.

	Col1	Col2 (D)	Col3 (S)	Col4 (D)	Col5 (S)	Col6 (D)	Col7 (S)	Col8 (D)	Col9 (S)
User Header	User Row ID	kNN Prediction	Closest NN1	Distance from NN1	Closest NN2	Distance from NN2	Closest NN3	Distance from NN3	
1	9.3312024	Entry 107	0.1676399	Entry 4	0.2219115	Entry 116	0.2350152	Er	
2	25.1974449	Entry 117	0.3516779	Entry 101	0.4301765	Entry 86	0.4308555	Er	
3	21.9519381	Entry 10	0.2294060	Entry 114	0.2789554	Entry 6	0.3103474	Er	
4	19.9563764	Entry 117	0.2260597	Entry 128	0.2333629	Entry 9	0.2394963	Er	
5	21.7408855	Entry 10	0.2132167	Entry 139	0.2689456	Entry 11	0.2902531	Er	
6	20.7413738	Entry 123	0.2990883	Entry 125	0.3280152	Entry 14	0.3642761	Er	
7	10.5655667	Entry 106	0.2276968	Entry 18	0.2392316	Entry 1	0.2475311	Er	
8	9.1975497	Entry 121	0.2373282	Entry 36	0.2524254	Entry 20	0.2558688	Er	
9	19.2633812	Entry 84	0.2662981	Entry 124	0.2760216	Entry 12	0.3058974	Er	
10	10.7318509	Entry 2	0.2552910	Entry 4	0.3100214	Entry 113	0.3174439	Er	
11	24.1308480	Entry 139	0.1389985	Entry 141	0.2086915	Entry 161	0.2242341	Er	
12	28.2789497	Entry 45	0.2569128	Entry 161	0.2940622	Entry 44	0.2973686	Er	
13	30.9301278	Entry 25	0.5081436	Entry 143	0.6147704	Entry 180	0.7325640	Er	
14	13.4702913	Entry 142	0.1610765	Entry 155	0.2203273	Entry 18	0.2401367	Er	
15	10.9296812	Entry 121	0.2692974	Entry 50	0.2829168	Entry 36	0.2904809	Er	
16	11.7469717	Entry 155	0.2156831	Entry 97	0.2948418	Entry 36	0.2995778	Er	
17	13.8738429	Entry 47	0.4003459	Entry 91	0.4195432	Entry 154	0.4256256	Er	

Regression Statistics Metrics

Actual Value Column: Col13 -- BodyFat

Prediction Value Column: Col2 -- kNN Prediction

Execute Cancel

The results will appear on the output spreadsheet.

The screenshot shows the 'Statistics' menu with options: Domain - APD, Model Metrics, Probability Distribution Functions, Descriptive Statistics, Confidence Intervals, Hypothesis Testing, Weight Cases, Random Number Generator, and Design of Experiments. The 'Model Metrics' option is selected, leading to a 'Regression Metrics' dialog box.

	Col1	Col2 (D)	Col3 (S)	Col4 (D)	Col5 (S)	Col6 (D)	Col7 (S)	Col8 (D)	Col9 (S)
User Header	User Row ID	kNN Prediction	Closest NN1	Distance from NN1	Closest NN2	Distance from NN2	Closest NN3	Distance from NN3	
1	9.3312024	Entry 107	0.1676399	Entry 4	0.2219115	Entry 116	0.2350152	Er	
2	25.1974449	Entry 117	0.3516779	Entry 101	0.4301765	Entry 86	0.4308555	Er	
3	21.9519381	Entry 10	0.2294060	Entry 114	0.2789554	Entry 6	0.3103474	Er	
4	19.9563764	Entry 117	0.2260597	Entry 128	0.2333629	Entry 9	0.2394963	Er	
5	21.7408855	Entry 10	0.2132167	Entry 139	0.2689456	Entry 11	0.2902531	Er	
6	20.7413738	Entry 123	0.2990883	Entry 125	0.3280152	Entry 14	0.3642761	Er	
7	10.5655667	Entry 106	0.2276968	Entry 18	0.2392316	Entry 1	0.2475311	Er	
8	9.1975497	Entry 121	0.2373282	Entry 36	0.2524254	Entry 20	0.2558688	Er	
9	19.2633812	Entry 84	0.2662981	Entry 124	0.2760216	Entry 12	0.3058974	Er	
10	10.7318509	Entry 2	0.2552910	Entry 4	0.3100214	Entry 113	0.3174439	Er	
11	24.1308480	Entry 139	0.1389985	Entry 141	0.2086915	Entry 161	0.2242341	Er	
12	28.2789497	Entry 45	0.2569128	Entry 161	0.2940622	Entry 44	0.2973686	Er	
13	30.9301278	Entry 25	0.5081436	Entry 143	0.6147704	Entry 180	0.7325640	Er	
14	13.4702913	Entry 142	0.1610765	Entry 155	0.2203273	Entry 18	0.2401367	Er	
15	10.9296812	Entry 121	0.2692974	Entry 50	0.2829168	Entry 36	0.2904809	Er	
16	11.7469717	Entry 155	0.2156831	Entry 97	0.2948418	Entry 36	0.2995778	Er	
17	13.8738429	Entry 47	0.4003459	Entry 91	0.4195432	Entry 154	0.4256256	Er	

Step 9: Reliability check of each record of the test set

Step 9.a: Create the domain

Create a new tab by pressing the "+" button on the bottom of the page with the name "EXCLUDE_BODYFAT".

Import data into the input spreadsheet of the "EXCLUDE_BODYFAT" tab from the output of the "NORMALIZE_TRAIN_SET" tab by right-clicking on the input spreadsheet and then choosing "Import from Spreadsheet".

The screenshot shows the Isalos Analytics Platform interface. At the top, there is a menu bar with options: File, Edit, Data Transformation, Analytics, Statistics, Plot, Help. Below the menu, a workflow diagram is visible with nodes: IMPORT, TRAIN_TEST_SPLIT, NORMALIZE_TRAIN_SET, NORMALIZE_TEST_SET, TRAIN_MODEL_LR, VALIDATE_MODEL(predict), STATISTICS_ACCURACIES, and EXCLUDE_BODYFAT. The main area displays a data table with 10 columns: User Header, User Row ID, Col1, Col2 (D), Col3 (D), Col4 (D), Col5 (D), Col6 (D), Col7 (D), Col8 (D), and Col9. The table contains 17 rows of data. The bottom of the interface shows a tab bar with tabs: IMPORT, TRAIN_TEST_SPLIT, NORMALIZE_TRAIN_SET, NORMALIZE_TEST_SET, TRAIN_MODEL_LR, VALIDATE_MODEL(predict), STATISTICS_ACCURACIES, and EXCLUDE_BODYFAT.

User Header	User Row ID	Col1	Col2 (D)	Col3 (D)	Col4 (D)	Col5 (D)	Col6 (D)	Col7 (D)	Col8 (D)	Col9
1	0.8529956	12.3000000	-1.7225084	-0.8604453	-0.5757451	-0.7801497	-0.95997			
2	1.6149861	6.1000000	-1.7995809	-0.2182566	0.5630251	0.1666149	-0.90035			
3	-0.6920058	25.3000000	-1.7995809	-0.8688952	-0.9553352	-1.6857505	-0.63804			
4	0.8319752	12.4000000	-1.5683635	-0.1253082	0.6262902	-0.1215309	-0.18496			
5	1.8619762	4.1000000	-1.5683635	0.3816829	1.0058802	0.0019602	-0.02996			
6	0.9265671	11.7000000	-1.7225084	0.6267287	0.8793502	1.6485072	-0.18496			
7	1.4941187	7.1000000	-1.4912910	0.2211358	1.1324103	0.1666149	0.041573			
8	1.3995267	7.8000000	-1.4142186	1.2266682	1.5120004	0.5370880	0.291956			
9	-0.1717502	20.8000000	-1.0288563	0.0267892	-0.1328900	0.1254512	0.101188			
10	-0.2137911	21.2000000	-1.1830012	0.8633245	0.3099651	0.5370880	0.351575			
11	-0.3241483	22.1000000	-0.7976389	0.2718349	-0.1328900	0.9898884	0.017727			
12	-0.1770053	20.9000000	-0.7976389	-0.5731503	-1.0186002	-0.6978223	-0.24458			
13	-1.1176695	29.0000000	-0.8747113	0.5422301	0.2467001	0.3312696	0.089265			
14	-0.4082301	22.9000000	-1.0288563	0.9985222	0.2467001	1.6485072	0.768885			
15	0.4010564	16.0000000	-1.3371461	0.1366372	-0.5757451	-0.0392035	0.673500			
16	0.0279438	19.1000000	-1.3371461	-0.0239100	-0.5124801	0.4135969	0.256190			
17	0.4483524	15.6000000	-1.1059287	-1.3336370	-0.4492151	-1.7269142	-1.80651			

Manipulate the data to exclude the column that corresponds to the "BodyFat" by browsing: "Data Transformation" → "Data Manipulation" → "Select Columns". Then select all the columns except the "BodyFat". The filtered table will appear on the output spreadsheet.

The screenshot shows the Isalos Analytics Platform interface with the 'Data Transformation' menu open. The 'Data Manipulation' option is selected, and the 'Select Columns' dialog box is displayed. The dialog box has two sections: 'Excluded Columns' and 'Included Columns'. The 'Excluded Columns' section contains 'Col3 -- BodyFat'. The 'Included Columns' section contains 'Col2 -- Density', 'Col4 -- Age', 'Col5 -- Weight', 'Col6 -- Height', 'Col7 -- Neck', 'Col8 -- Chest', 'Col9 -- Abdomen', and 'Col10 -- Hip'. The 'Execute' button is highlighted.

User Header	User Row ID	Col1	Col2 (D)	Col3 (D)	Col4 (D)	Col5 (D)	Col6 (D)	Col7 (D)	Col8 (D)	Col9
1	0.8529956	12.3000000	-1.7225084	-0.8604453	-0.5757451	-0.7801497	-0.95997			
2	1.6149861	6.1000000	-1.7995809	-0.2182566	0.5630251	0.1666149	-0.90035			
3	-0.6920058	25.3000000	-1.7995809	-0.8688952	-0.9553352	-1.6857505	-0.63804			
4	0.8319752	12.4000000	-1.5683635	-0.1253082	0.6262902	-0.1215309	-0.18496			
5	1.8619762	4.1000000	-1.5683635	0.3816829	1.0058802	0.0019602	-0.02996			
6	0.9265671	11.7000000	-1.7225084	0.6267287	0.8793502	1.6485072	-0.18496			
7	1.4941187	7.1000000	-1.4912910	0.2211358	1.1324103	0.1666149	0.041573			
8	1.3995267	7.8000000	-1.4142186	1.2266682	1.5120004	0.5370880	0.291956			
9	-0.1717502	20.8000000	-1.0288563	0.0267892	-0.1328900	0.1254512	0.101188			
10	-0.2137911	21.2000000	-1.1830012	0.8633245	0.3099651	0.5370880	0.351575			
11	-0.3241483	22.1000000	-0.7976389	0.2718349	-0.1328900	0.9898884	0.017727			
12	-0.1770053	20.9000000	-0.7976389	-0.5731503	-1.0186002	-0.6978223	-0.24458			
13	-1.1176695	29.0000000	-0.8747113	0.5422301	0.2467001	0.3312696	0.089265			
14	-0.4082301	22.9000000	-1.0288563	0.9985222	0.2467001	1.6485072	0.768885			
15	0.4010564	16.0000000	-1.3371461	0.1366372	-0.5757451	-0.0392035	0.673500			
16	0.0279438	19.1000000	-1.3371461	-0.0239100	-0.5124801	0.4135969	0.256190			
17	0.4483524	15.6000000	-1.1059287	-1.3336370	-0.4492151	-1.7269142	-1.80651			

Create a new tab by pressing the "+" button on the bottom of the page with the name "DOMAIN".

Import data into the input spreadsheet of the "DOMAIN" tab from the output of the "EXCLUDE_BODYFAT" tab by right-clicking on the input spreadsheet and then choosing "Import from SpreadSheet".

The screenshot shows the Isalos Analytics Platform interface. At the top, there is a menu bar with options: File, Edit, Data Transformation, Analytics, Statistics, Plot, Help. Below the menu bar, a workflow diagram is visible with steps: IMPORT, TRAIN_TEST_SPLIT, NORMALIZE_TRAIN_SET, TRAIN_MODEL(FIT), VALIDATE_MODEL(PREDICT), STATISTICS_ACCURACIES, EXCLUDE_BODYFAT, and DOMAIN. The main area displays a data table with 17 rows and 10 columns. The columns are labeled: User Header, Col1, Col2 (D), Col3 (D), Col4 (D), Col5 (D), Col6 (D), Col7 (D), Col8 (D), and Col9 (D). The data is as follows:

User Header	Col1	Col2 (D)	Col3 (D)	Col4 (D)	Col5 (D)	Col6 (D)	Col7 (D)	Col8 (D)	Col9 (D)
1	0.8529956	-1.7225084	-0.8604453	-0.5757451	-0.7801497	-0.9599714	-0.7196		
2	1.6149861	-1.7995809	-0.2182566	0.5630251	0.1666149	-0.9003557	-0.9228		
3	-0.6920058	-1.7995809	-0.8688952	-0.9553352	-1.6857505	-0.6380463	-0.4706		
4	0.8319752	-1.5683635	-0.1253082	0.6262902	-0.1215309	-0.1849666	-0.4152		
5	1.8619762	-1.5683635	0.3816829	1.0058802	0.0019602	-0.0299656	-0.9685		
6	0.9265671	-1.7225084	0.6267287	0.8793502	1.6485072	-0.1849666	-0.4060		
7	1.4941187	-1.4912910	0.2211358	1.1324103	0.1666149	0.0415733	-0.8674		
8	1.3995267	-1.4142186	1.2266682	1.5120004	0.5370880	0.2919595	-0.1938		
9	-0.1717502	-1.0288563	0.0267892	-0.1328900	0.1254512	0.1011891	-0.1292		
10	-0.2137911	-1.1830012	0.8633245	0.3099651	0.5370880	0.3515753	0.8119		
11	-0.3241483	-0.7976389	0.2718349	-0.1328900	0.9898884	0.0177270	0.3136		
12	-0.1770053	-0.7976389	-0.5731503	-1.0186002	-0.6978223	-0.2445823	-0.0185		
13	-1.1176695	-0.8747113	0.5422301	0.2467001	0.3312696	0.0892659	0.3136		
14	-0.4082301	-1.0288563	0.9985222	0.2467001	1.6485072	0.7688856	0.4151		
15	0.4010564	-1.3371461	0.1366372	-0.5757451	-0.0392035	0.6735003	-0.3137		
16	0.0279438	-1.3371461	-0.0239100	-0.5124801	0.4135969	0.2561900	0.2675		
17	0.4483524	-1.1059287	-1.3336370	-0.4492151	-1.7269142	-1.8065152	-1.5318		

Create the domain of applicability by browsing: "Statistics" → "Domain APD".

The screenshot shows the Isalos Analytics Platform interface with the 'Statistics' menu open. The menu options are: Domain - APD, Model Metrics, Probability Distribution Functions, Descriptive Statistics, Confidence Intervals, Hypothesis Testing, Weight Cases, Random Number Generator, and Design of Experiments. The main area displays a data table with 17 rows and 10 columns. The columns are labeled: User Header, Col1, Col2 (D), Col3 (D), Col4 (D), Col5 (D), Col6 (D), Col7 (D), Col8 (D), and Col9 (D). The data is as follows:

User Header	Col1	Col2 (D)	Col3 (D)	Col4 (D)	Col5 (D)	Col6 (D)	Col7 (D)	Col8 (D)	Col9 (D)
1	0.8529956	-1.7225084	-0.8604453	-0.5757451	-0.7801497	-0.9599714	-0.7196		
2	1.6149861	-1.7995809	-0.2182566	0.5630251	0.1666149	-0.9003557	-0.9228		
3	-0.6920058	-1.7995809	-0.8688952	-0.9553352	-1.6857505	-0.6380463	-0.4706		
4	0.8319752	-1.5683635	-0.1253082	0.6262902	-0.1215309	-0.1849666	-0.4152		
5	1.8619762	-1.5683635	0.3816829	1.0058802	0.0019602	-0.0299656	-0.9685		
6	0.9265671	-1.7225084	0.6267287	0.8793502	1.6485072	-0.1849666	-0.4060		
7	1.4941187	-1.4912910	0.2211358	1.1324103	0.1666149	0.0415733	-0.8674		
8	1.3995267	-1.4142186	1.2266682	1.5120004	0.5370880	0.2919595	-0.1938		
9	-0.1717502	-1.0288563	0.0267892	-0.1328900	0.1254512	0.1011891	-0.1292		
10	-0.2137911	-1.1830012	0.8633245	0.3099651	0.5370880	0.3515753	0.8119		
11	-0.3241483	-0.7976389	0.2718349	-0.1328900	0.9898884	0.0177270	0.3136		
12	-0.1770053	-0.7976389	-0.5731503	-1.0186002	-0.6978223	-0.2445823	-0.0185		
13	-1.1176695	-0.8747113	0.5422301	0.2467001	0.3312696	0.0892659	0.3136		
14	-0.4082301	-1.0288563	0.9985222	0.2467001	1.6485072	0.7688856	0.4151		
15	0.4010564	-1.3371461	0.1366372	-0.5757451	-0.0392035	0.6735003	-0.3137		
16	0.0279438	-1.3371461	-0.0239100	-0.5124801	0.4135969	0.2561900	0.2675		
17	0.4483524	-1.1059287	-1.3336370	-0.4492151	-1.7269142	-1.8065152	-1.5318		

The screenshot shows the 'Domain - APD' dialog box. It contains the formula $APD = d + Z\sigma$, where d is the mean and σ is the standard deviation. The value of Z is set to 0.5. Below the formula, there is a button labeled 'Perform Computations' and a dropdown menu showing 'CPU (double precision)'. At the bottom, there are two buttons: 'Execute' and 'Cancel'.

The results will appear on the output spreadsheet.

User Header	Col1	Col2 (D)	Col3 (D)	Col4 (D)	Col5 (D)	Col6 (D)	Col7 (D)	Col8 (D)	Col9	Col10
1	0.8529956	-1.7225084	-0.8604453	-0.5757451	-0.7801497	-0.9599714	-0.7198			
2	1.6149861	-1.7995809	-0.2182566	0.5630251	0.1666149	-0.9003557	-0.9226			
3	-0.6920058	-1.7995809	-0.8688952	-0.9553352	-1.6857505	-0.6380463	-0.4706			
4	0.8319752	-1.5683635	-0.1253082	0.6262902	-0.1215309	-0.1849666	-0.4152			
5	1.8619762	-1.5683635	0.3816829	1.0058802	0.0019602	-0.0299656	-0.9685			
6	0.9265671	-1.7225084	0.6267287	0.8793502	1.6485072	-0.1849666	-0.4066			
7	1.4941187	-1.4912910	0.2211358	1.1324103	0.1666149	0.0415733	-0.8674			
8	1.3995267	-1.4142186	1.2266682	1.5120004	0.5370880	0.2919595	-0.1938			
9	-0.1717502	-1.0288563	0.0267892	-0.1328900	0.1254512	0.1011891	-0.1292			
10	-0.2137911	-1.1830012	0.8633245	0.3099651	0.5370880	0.3515753	0.81191			
11	-0.3241483	-0.7976389	0.2718349	-0.1328900	0.9898884	0.0177270	0.31366			
12	-0.1770053	-0.7976389	-0.5731503	-1.0186002	-0.6978223	-0.2445823	-0.0185			
13	-1.176695	-0.8747113	0.5422301	0.2467001	0.3312696	0.0892659	0.31366			
14	-0.4082301	-1.0288563	0.9985322	0.2467001	1.6485072	0.7688856	0.41511			
15	0.4010564	-1.3371461	0.1366372	-0.5757451	-0.0392035	0.6735003	-0.3137			
16	0.0279438	-1.3371461	-0.0239100	-0.5124801	0.4135969	0.2561900	0.26751			
17	0.4483524	-1.1059287	-1.3336370	-0.4492151	-1.7269142	-1.8065152	-1.5316			

Step 9.b: Check the test set reliability

Create a new tab by pressing the "+" button on the bottom of the page with the name "EXCLUDE_BODYFAT_TEST_SET".

Import data into the input spreadsheet of the "EXCLUDE_BODYFAT_TEST_SET" tab from the output of the "NORMALIZE_TEST_SET" tab by right-clicking on the input spreadsheet and then choosing "Import from Spreadsheet".

User Header	Col1	Col2 (D)	Col3 (D)	Col4 (D)	Col5 (D)	Col6 (D)	Col7 (D)	Col8 (D)	Col9	Col10
1	1.0789652	10.4000000	-1.4912910	0.1704366	0.5630251	-0.2861856	0.0773428	-0.6		
2	-1.0808837	28.7000000	-1.6454360	0.1535369	0.3099651	-1.5210958	-0.4591990	0.6		
3	-0.2295564	20.9000000	-1.6454360	1.0323216	1.1956753	0.3724333	0.3992679	0.1		
4	0.0174336	19.2000000	-1.4912910	0.0436889	-0.0696250	-0.6978223	0.4708068	-0.2		
5	0.3379951	16.5000000	-0.9517838	1.0830207	0.8793502	0.7840700	0.6019614	0.6		
6	0.4956483	15.2000000	-1.3371461	0.7027773	-0.0696250	1.3191978	1.2219653	0.5		
7	0.6427913	14.0000000	-1.3371461	-0.9618435	-0.5757451	-1.4799322	-1.3057428	-1.5		
8	1.3942716	7.9000000	-0.8747113	-1.6293819	-0.6390101	-0.7801497	-1.4965132	-1.6		
9	-0.4082301	22.9000000	-1.1059287	-1.0716916	-0.6390101	0.2901059	-0.4472759	-0.3		
10	0.9108018	11.8000000	-1.4142186	-0.3957034	0.3099651	0.0019602	-0.9718946	-1.2		
11	-0.5658833	24.2000000	-0.4122765	0.7619263	-0.0063600	0.1666149	0.6377309	0.7		
12	-1.0493531	28.4000000	0.3584481	0.5760295	-0.4492151	1.6485072	0.5304225	0.5		
13	-1.7272619	34.5000000	-0.0269142	2.8067905	-0.3226850	2.1013077	3.2369779	3.0		

Filter the data to exclude the column that corresponds to the "BodyFat" by browsing: "Data Transformation" → "Data Manipulation" → "Select Columns". Then select all the columns except "BodyFat".

The screenshot shows the 'Select Column(s)' dialog box in the Isalos Analytics Platform. The dialog has two panes: 'Excluded Columns' and 'Included Columns'. In the 'Excluded Columns' pane, 'Col3 -- BodyFat' is listed. In the 'Included Columns' pane, the following columns are listed: 'Col2 -- Density', 'Col4 -- Age', 'Col5 -- Weight', 'Col6 -- Height', 'Col7 -- Neck', 'Col8 -- Chest', 'Col9 -- Abdomen', 'Col10 -- Hip', and 'Col11 -- Thigh'. The background shows a data table with columns for User Header, User Row ID, and various body measurements.

User Header	Col1	Col2 (D)	Col3 (D)	Col4 (D)	Col5 (D)	Col6 (D)	Col7 (D)	Col8 (D)
1	1.0789652	10.4000000	-1.4912910	0.1704366	0.5630251	-0.2861856	0.0773428	-0.60
2	-1.0808837	28.7000000	-1.6454360	0.1535369	0.3099651	-1.5210958	-0.4591990	0.645
3	-0.2295564	20.9000000	-1.6454360	1.0323216	1.1956753	0.3724333	0.3993679	0.129
4	0.0174336	19.2000000	-1.4912910	0.0436889	-0.0696250	-0.6978223	0.4708068	-0.21
5	0.3379951	16.5000000	-0.9517838	1.0830207	0.8793502	0.7840700	0.6019614	0.692
6	0.4956483	15.2000000	-1.3371461	0.7027773	-0.0696250	1.3191978	1.2219653	0.535
7	0.6427913	14.0000000	-1.3371461	-0.9618435	-0.5757451	-1.4799322	-1.3057428	-1.54
8	1.3942716	7.9000000	-0.8747113	-1.6293819	-0.6390101	-0.7801497	-1.4965132	-1.69
9	-0.4082301	22.9000000	-1.1059287	-1.0716916	-0.6390101	0.2901059	-0.4472759	-0.39
10	0.9108018	11.8000000	-1.4142186	-0.3957034	0.3099651	0.0019602	-0.9718946	-1.28
11	-0.5658833	24.2000000	-0.4122765	0.7619263	-0.0063600	0.1666149	0.6377309	0.728
12	-1.0493531	28.4000000	0.3584481	0.5760295	-0.4492151	1.6485072	0.5304225	0.535
13	-1.7272619	34.5000000	-0.0269142	2.8067905	-0.3226850	2.1013077	3.2369779	3.063

The results will appear on the output spreadsheet.

Create a new tab by pressing the "+" button on the bottom of the page with the name "RELIABILITY".

Import data into the input spreadsheet of the "RELIABILITY" tab from the output of the "EXCLUDE_BODYFAT_TEST_SET" tab by right-clicking on the input spreadsheet and then choosing "Import from Spreadsheet".

The screenshot shows the 'RELIABILITY' tab in the Isalos Analytics Platform. The interface displays a data table with columns for User Header, User Row ID, and various body measurements. The 'RELIABILITY' tab is selected, and the data is imported from the 'EXCLUDE_BODYFAT_TEST_SET' tab.

User Header	Col1	Col2 (D)	Col3 (D)	Col4 (D)	Col5 (D)	Col6 (D)	Col7 (D)	Col8 (D)	Col9	Col10
1	1.0789652	-1.4912910	0.1704366	0.5630251	-0.2861856	0.0773428	-0.60			
2	-1.0808837	-1.6454360	0.1535369	0.3099651	-1.5210958	-0.4591990	0.645			
3	-0.2295564	-1.6454360	1.0323216	1.1956753	0.3724333	0.3993679	0.129			
4	0.0174336	-1.4912910	0.0436889	-0.0696250	-0.6978223	0.4708068	-0.21			
5	0.3379951	-0.9517838	1.0830207	0.8793502	0.7840700	0.6019614	0.692			
6	0.4956483	-1.3371461	0.7027773	-0.0696250	1.3191978	1.2219653	0.535			
7	0.6427913	-1.3371461	-0.9618435	-0.5757451	-1.4799322	-1.3057428	-1.54			
8	1.3942716	-0.8747113	-1.6293819	-0.6390101	-0.7801497	-1.4965132	-1.69			
9	-0.4082301	-1.1059287	-1.0716916	-0.6390101	0.2901059	-0.4472759	-0.39			
10	0.9108018	-1.4142186	-0.3957034	0.3099651	0.0019602	-0.9718946	-1.28			
11	-0.5658833	-0.4122765	0.7619263	-0.0063600	0.1666149	0.6377309	0.728			
12	-1.0493531	0.3584481	0.5760295	-0.4492151	1.6485072	0.5304225	0.535			
13	-1.7272619	-0.0269142	2.8067905	-0.3226850	2.1013077	3.2369779	3.063			

Check the predictions' reliability by browsing: "Analytics" → "Existing Model Utilization". Then select as Model "(from Tab:) DOMAIN".

Existing Model Execution

Model: (from Tab:)DOMAIN

Type: APD Model

Description:

Model Input:

- Header -> Datatype
- Density -> Double
- Age -> Double
- Weight -> Double
- Height -> Double
- Neck -> Double
- Chest -> Double
- Abdomen -> Double
- Hip -> Double
- Thigh -> Double

☐ Transfer Column(s) to Output

Execute Cancel

User Header	Col1	Col2 (D)	Col3 (D)	Col4 (D)	Col5 (D)	Col6 (D)	Col7 (D)	Col8
1	1.078952	-1.4912910	0.1704366	0.5630251	-0.2861856	0.0773428	-0.60	
2	-1.0808837	-1.6454360	0.1535369	0.3099651	-1.5210958	-0.4591990	0.645	
3	-0.2295564	-1.6454360	1.0323216	1.1956753	0.3724333	0.3992679	0.129	
4	0.0174336	-1.4912910	0.0436889	-0.0696250	-0.6978223	0.4708068	-0.21	
5	0.3379951	-0.9517838	1.0830207	0.8793502	0.7840700	0.6019614	0.692	
6	0.4956483	-1.3371461	0.7027773	-0.0696250	1.3191978	1.2219653	0.535	
7	0.6427913	-1.3371461	-0.9618435	-0.5757451	-1.4799322	-1.3057428	-1.54	
8	1.3942716	-0.8747113	-1.6293819	-0.6390101	-0.7801497	-1.4965132	-1.69	
9	-0.4082301	-1.1059287	-1.0716916	-0.6390101	0.2901059	-0.4472759	-0.39	
10	0.9108018	-1.4142186	-0.3957034	0.3099651	0.0019602	-0.9718946	-1.28	
11	-0.5658833	-0.4122765	0.7619263	-0.0063600	0.1666149	0.6377309	0.728	
12	-1.0493531	0.3584481	0.5760295	-0.4492151	1.6485072	0.5304225	0.535	
13	-1.7272619	-0.0269142	2.8067905	-0.3226850	2.1013077	3.2369779	3.063	

The results will appear on the output spreadsheet. We can observe that there are no unreliable samples in the test set.

Existing Model Execution

Model: (from Tab:)DOMAIN

Type: APD Model

Description:

Model Input:

- Header -> Datatype
- Density -> Double
- Age -> Double
- Weight -> Double
- Height -> Double
- Neck -> Double
- Chest -> Double
- Abdomen -> Double
- Hip -> Double
- Thigh -> Double

☐ Transfer Column(s) to Output

Execute Cancel

User Header	Col1	Col2 (D)	Col3 (D)	Col4 (D)	Col5 (D)	Col6 (D)	Col7 (D)	Col8
1	1.078952	-1.4912910	0.1704366	0.5630251	-0.2861856	0.0773428	-0.60	
2	-1.0808837	-1.6454360	0.1535369	0.3099651	-1.5210958	-0.4591990	0.645	
3	-0.2295564	-1.6454360	1.0323216	1.1956753	0.3724333	0.3992679	0.129	
4	0.0174336	-1.4912910	0.0436889	-0.0696250	-0.6978223	0.4708068	-0.21	
5	0.3379951	-0.9517838	1.0830207	0.8793502	0.7840700	0.6019614	0.692	
6	0.4956483	-1.3371461	0.7027773	-0.0696250	1.3191978	1.2219653	0.535	
7	0.6427913	-1.3371461	-0.9618435	-0.5757451	-1.4799322	-1.3057428	-1.54	
8	1.3942716	-0.8747113	-1.6293819	-0.6390101	-0.7801497	-1.4965132	-1.69	
9	-0.4082301	-1.1059287	-1.0716916	-0.6390101	0.2901059	-0.4472759	-0.39	
10	0.9108018	-1.4142186	-0.3957034	0.3099651	0.0019602	-0.9718946	-1.28	
11	-0.5658833	-0.4122765	0.7619263	-0.0063600	0.1666149	0.6377309	0.728	
12	-1.0493531	0.3584481	0.5760295	-0.4492151	1.6485072	0.5304225	0.535	
13	-1.7272619	-0.0269142	2.8067905	-0.3226850	2.1013077	3.2369779	3.063	

User Header	Col1	Col2 (D)	Col3 (D)	Col4 (S)	Col5	Col6	Col7	Col8	Col9	Col10
1	1.5014889	3.7247999	reliable							
2	2.3267637	3.7247999	reliable							
3	1.7657758	3.7247999	reliable							
4	1.4787916	3.7247999	reliable							
5	1.4179878	3.7247999	reliable							
6	2.1281217	3.7247999	reliable							
7	1.6798409	3.7247999	reliable							
8	1.6860891	3.7247999	reliable							
9	1.7810073	3.7247999	reliable							
10	1.6827721	3.7247999	reliable							
11	1.0675948	3.7247999	reliable							
12	1.8134546	3.7247999	reliable							
13	3.5674864	3.7247999	reliable							
14	1.2145013	3.7247999	reliable							
15	1.7658088	3.7247999	reliable							

Final Isalos Workflow

Following the above-described steps, the final workflow on Isalos will look like this:

