**Preview**     Activities     Visualization

## Schema: 17 Columns
Preview: First 1000 rows

Last refresh: 10 seconds ago     **Refine**

| age String | job String | marital String | education String | default String | balance String | housing String | loan String | contact String | day String | month String | duration String | campaign String |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 59 | admin. | married | secondary | no | 2343 | yes | no | unknown | 5 | may | 1042 | 1 |
| 56 | admin. | married | secondary | no | 45 | no | no | unknown | 5 | may | 1467 | 1 |
| 41 | technician | married | secondary | no | 1270 | yes | no | unknown | 5 | may | 1389 | 1 |
| 55 | services | married | secondary | no | 2476 | yes | no | unknown | 5 | may | 579 | 1 |
| 54 | admin. | married | tertiary | no | 184 | no | no | unknown | 5 | may | 673 | 2 |
| 42 | management | single | tertiary | no | 0 | yes | yes | unknown | 5 | may | 562 | 2 |
| 56 | management | married | tertiary | no | 830 | yes | yes | unknown | 6 | may | 1201 | 1 |
| 60 | retired | divorced | secondary | no | 545 | yes | no | unknown | 6 | may | 1030 | 1 |
| 37 | technician | married | secondary | no | 1 | yes | no | unknown | 6 | may | 608 | 1 |
| 28 | services | single | secondary | no | 5090 | yes | no | unknown | 6 | may | 1297 | 3 |
| 38 | admin. | single | secondary | no | 100 | yes | no | unknown | 7 | may | 786 | 1 |
| 30 | blue-collar | married | secondary | no | 309 | yes | no | unknown | 7 | may | 1574 | 2 |
| 29 | management | married | tertiary | no | 199 | yes | yes | unknown | 7 | may | 1689 | 4 |

Steps

Use a code template to add a step

**Data**  Profile  Visualizations

| age<br>Integer | job<br>String | marital<br>String | education<br>String | default<br>String | balance<br>Integer | housing<br>String |
|---|---|---|---|---|---|---|
| 1 | 59 | admin. | married | secondary | no | 2343 | yes |
| 2 | 56 | admin. | married | secondary | no | 45 | no |
| 3 | 41 | technician | married | secondary | no | 1270 | yes |
| 4 | 55 | services | married | secondary | no | 2476 | yes |
| 5 | 54 | admin. | married | tertiary | no | 184 | no |
| 6 | 42 | management | single | tertiary | no | 0 | yes |
| 7 | 56 | management | married | tertiary | no | 830 | yes |
| 8 | 60 | retired | divorced | secondary | no | 545 | yes |
| 9 | 37 | technician | married | secondary | no | 1 | yes |
| 10 | 28 | services | single | secondary | no | 5090 | yes |
| 11 | 38 | admin. | single | secondary | no | 100 | yes |
| 12 | 30 | blue-collar | married | secondary | no | 309 | yes |
| 13 | 29 | management | married | tertiary | no | 199 | yes |

SOURCE FILE: bank.csv    SAMPLE SIZE: First 10000 rows

## Information

### Details    Help

Edit

**LOCATION**
Term Deposit

**DATA REFINERY FLOW NAME**
bank.csv_flow

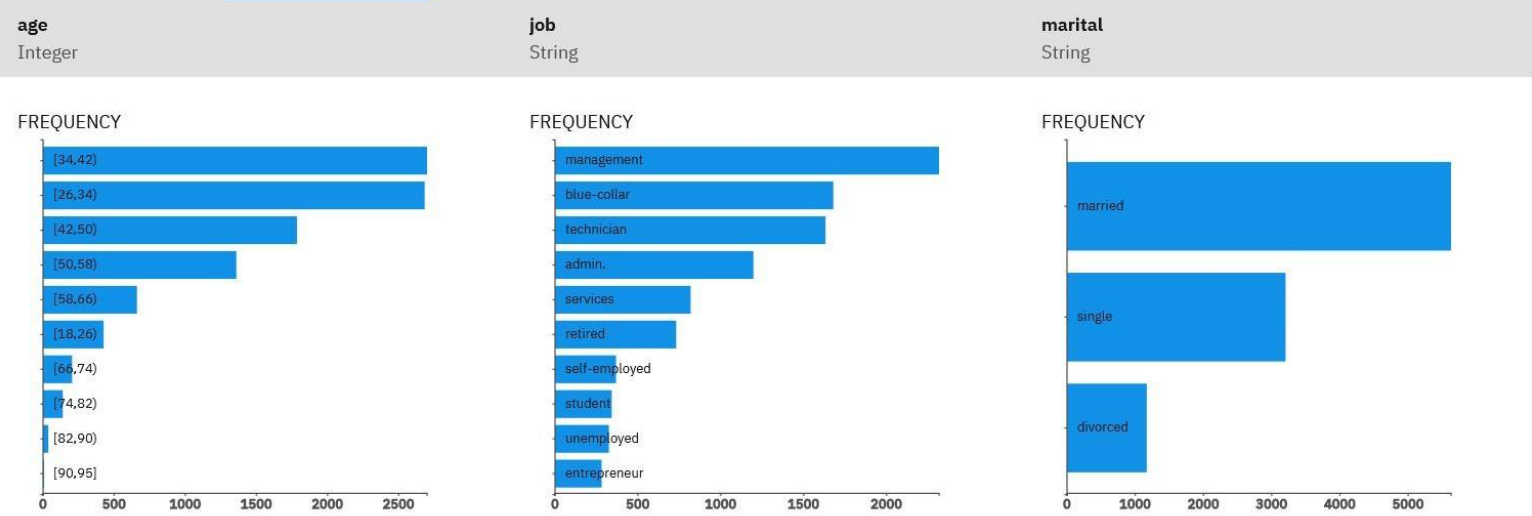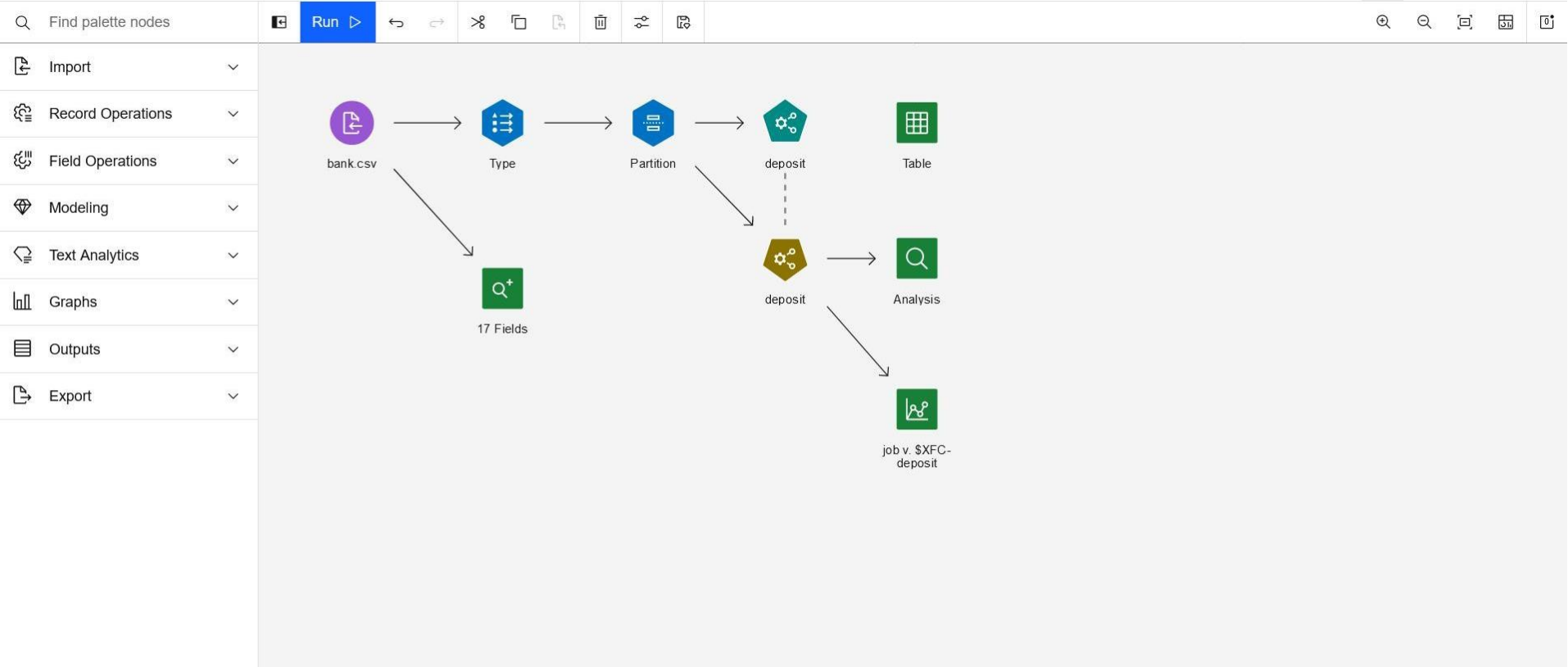Enter a description of the Data Refinery flow

**STEPS**
1

**DATA REFINERY FLOW OUTPUT**

Location

## Steps

Use a code template to add a step

Data | **Profile** | Visualizations

| age | job | marital |
|---|---|---|
| Integer | String | String |

FREQUENCY



FREQUENCY



FREQUENCY



STATISTICS

| Interquartile Range | 17 |
|---|---|

STATISTICS

| Maximum length | 13 |
|---|---|

STATISTICS

| Maximum length | 8 |
|---|---|

## Information

**Details** | Help

Edit ✎

**LOCATION**
Term Deposit

**DATA REFINERY FLOW NAME**
bank.csv_flow

Enter a description of the Data Refinery flow

**STEPS**
1

**DATA REFINERY FLOW OUTPUT**

Location

Import

Record Operations

Field Operations

Modeling

Text Analytics

Graphs

Outputs

Export

Run

bank.csv

Type

Partition

deposit

Table

17 Fields

deposit

Analysis

job v. $XFC-deposit

## View Output: Data Audit of [17 fields]

| | Field | Sample Graph | Measurement | Min | Max | Mean | Std. Dev | Skewness | Unique | Valid |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | age |  | Continuous | 18 | 95 | 41.232 | 11.913 | 0.863 | -- | 11162 |
| 2 | job |  | Categorical | -- | -- | -- | -- | -- | 12 | 11162 |
| 3 | marital |  | Categorical | -- | -- | -- | -- | -- | 3 | 11162 |
| 4 | education |  | Categorical | -- | -- | -- | -- | -- | 4 | 11162 |
| 5 | default |  | Categorical | -- | -- | -- | -- | -- | 2 | 11162 |
| 6 | balance |  | Continuous | -6847 | 81204 | 1528.539 | 3225.413 | 8.225 | -- | 11162 |
| 7 | housing |  | Categorical | -- | -- | -- | -- | -- | 2 | 11162 |
| 8 | loan |  | Categorical | -- | -- | -- | -- | -- | 2 | 11162 |
| 9 | contact |  | Categorical | -- | -- | -- | -- | -- | 3 | 11162 |
| 10 | day |  | Continuous | 1 | 31 | 15.658 | 8.421 | 0.111 | -- | 11162 |
| 11 | month |  | Categorical | -- | -- | -- | -- | -- | 12 | 11162 |
| 12 | duration |  | Continuous | 2 | 3881 | 371.994 | 347.128 | 2.144 | -- | 11162 |
| 13 | campaign |  | Continuous | 1 | 63 | 2.508 | 2.722 | 5.546 | -- | 11162 |
| 14 | pdays |  | Continuous | -1 | 854 | 51.330 | 108.758 | 2.450 | -- | 11162 |
| 15 | previous |  | Continuous | 0 | 58 | 0.833 | 2.292 | 7.335 | -- | 11162 |
| 16 | poutcome |  | Categorical | -- | -- | -- | -- | -- | 4 | 11162 |
| 17 | deposit |  | Categorical | -- | -- | -- | -- | -- | 2 | 11162 |

# View Output: Data Audit of [17 fields]

| | Field | Measurement | Outliers | Extremes | Action | Impute Missing | Method | % Complete | Valid Records | Null Value | Empty String | White Space | Blank Value |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | age | Continuous | 132 | 0 | None | Never | Fixed | 100.000 | 11162 | 0 | 0 | 0 | 0 |
| 2 | job | Categorical | -- | -- | -- | Never | Fixed | 100.000 | 11162 | 0 | 0 | 0 | 0 |
| 3 | marital | Categorical | -- | -- | -- | Never | Fixed | 100.000 | 11162 | 0 | 0 | 0 | 0 |
| 4 | education | Categorical | -- | -- | -- | Never | Fixed | 100.000 | 11162 | 0 | 0 | 0 | 0 |
| 5 | default | Categorical | -- | -- | -- | Never | Fixed | 100.000 | 11162 | 0 | 0 | 0 | 0 |
| 6 | balance | Continuous | 99 | 74 | None | Never | Fixed | 100.000 | 11162 | 0 | 0 | 0 | 0 |
| 7 | housing | Categorical | -- | -- | -- | Never | Fixed | 100.000 | 11162 | 0 | 0 | 0 | 0 |
| 8 | loan | Categorical | -- | -- | -- | Never | Fixed | 100.000 | 11162 | 0 | 0 | 0 | 0 |
| 9 | contact | Categorical | -- | -- | -- | Never | Fixed | 100.000 | 11162 | 0 | 0 | 0 | 0 |
| 10 | day | Continuous | 0 | 0 | None | Never | Fixed | 100.000 | 11162 | 0 | 0 | 0 | 0 |
| 11 | month | Categorical | -- | -- | -- | Never | Fixed | 100.000 | 11162 | 0 | 0 | 0 | 0 |
| 12 | duration | Continuous | 179 | 22 | None | Never | Fixed | 100.000 | 11162 | 0 | 0 | 0 | 0 |
| 13 | campaign | Continuous | 136 | 74 | None | Never | Fixed | 100.000 | 11162 | 0 | 0 | 0 | 0 |
| 14 | pdays | Continuous | 149 | 27 | None | Never | Fixed | 100.000 | 11162 | 0 | 0 | 0 | 0 |
| 15 | previous | Continuous | 163 | 57 | None | Never | Fixed | 100.000 | 11162 | 0 | 0 | 0 | 0 |
| 16 | poutcome | Categorical | -- | -- | -- | Never | Fixed | 100.000 | 11162 | 0 | 0 | 0 | 0 |
| 17 | deposit | Categorical | -- | -- | -- | Never | Fixed | 100.000 | 11162 | 0 | 0 | 0 | 0 |

# View Output: job v. $XFC-deposit
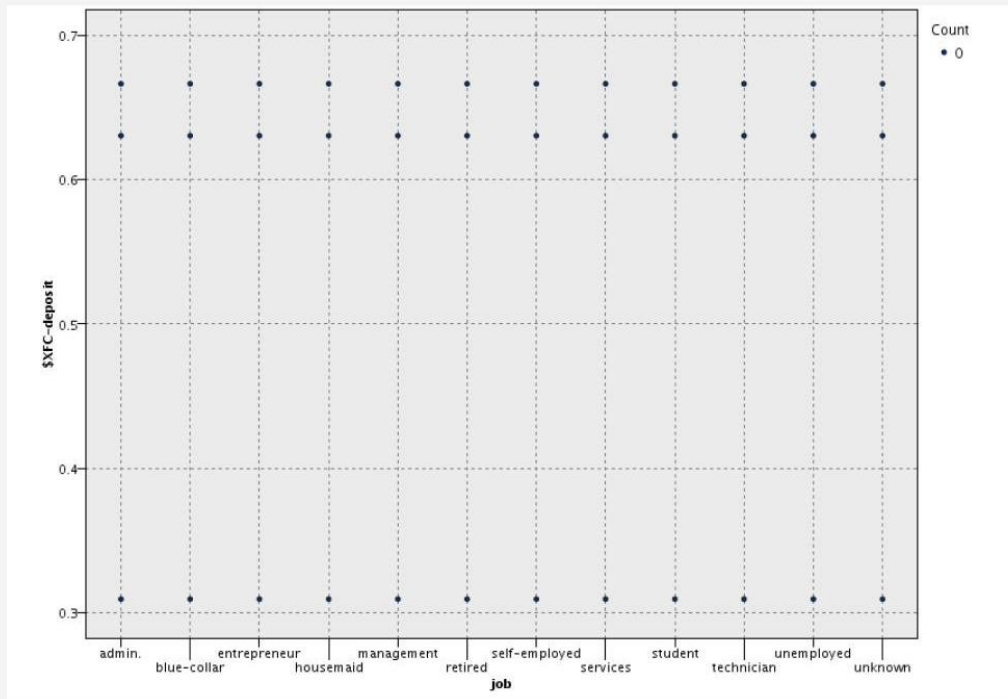
# View Output: Analysis of [deposit]

Collapse All

⊖ **Results for output field deposit**

⊖ **Comparing $XF-deposit with deposit**

| 'Partition' | 1_Training | | 2_Testing | |
|---|---|---|---|---|
| **Correct** | 4,305 | 55.26% | 1,874 | 55.58% |
| **Wrong** | 3,485 | 44.74% | 1,498 | 44.42% |
| **Total** | 7,790 | | 3,372 | |

# View Model: deposit

## Auto Classifier - Models ⓘ

TARGET : DEPOSIT

| USE | MODEL NAME | ESTIMATOR ▼ | BUILD TIME (MINS) | NO. FIELDS USED | ACCURACY | ACCUMULATED ACCURACY | AREA UNDER CURVE | ACCUMULATED AUC | RECALL | PRECISION | ACTIONS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ☑ | Random Trees 1 | Random Trees | ‹ 1 | 1 | 54.918 | 54.918 | 0.550 | 0.550 | 0.479 | 0.527 | 🗑 |
| ☑ | Logistic regression 1 | Nominal Regression | ‹ 1 | 1 | 55.357 | 55.357 | 0.550 | 0.550 | 0.362 | 0.543 | 🗑 |
| ☑ | LSVM 1 | Linear SVM | ‹ 1 | 1 | 55.357 | 55.357 | 0.550 | 0.550 | 0.362 | 0.543 | 🗑 |
| ☑ | Decision List 1 | Decision List | ‹ 1 | 1 | 54.918 | 54.918 | 0.550 | 0.550 | 0.479 | 0.527 | 🗑 |
| ☑ | Bayesian Network 1 | BayesNet | ‹ 1 | 1 | 55.357 | 55.357 | 0.550 | 0.550 | 0.362 | 0.543 | 🗑 |