DATA ANALYTICS

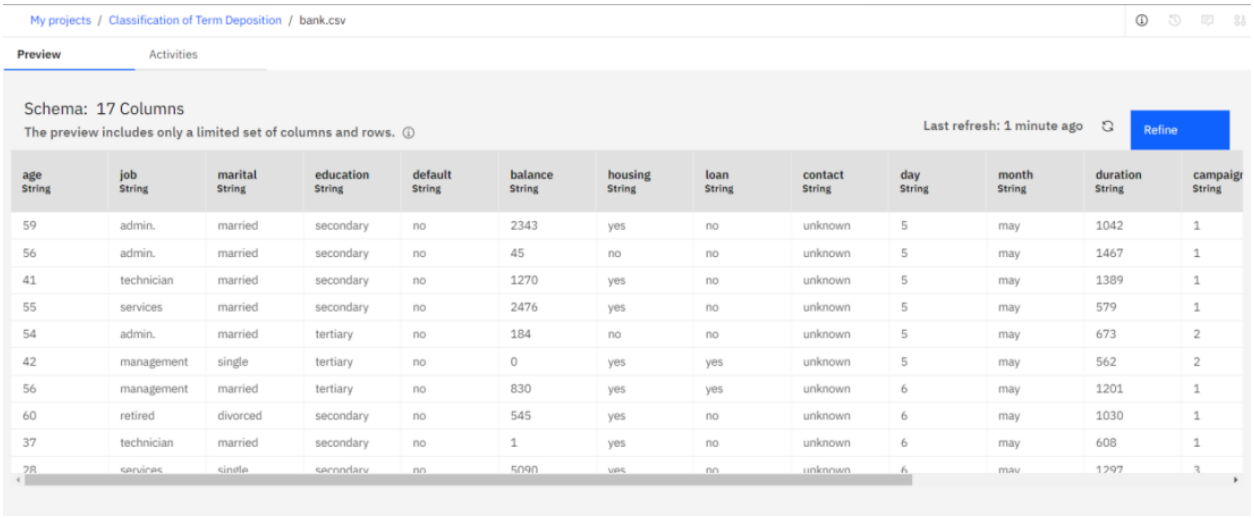
ASSIGNMENT – 3

Classification of term deposit buyers for retail banking

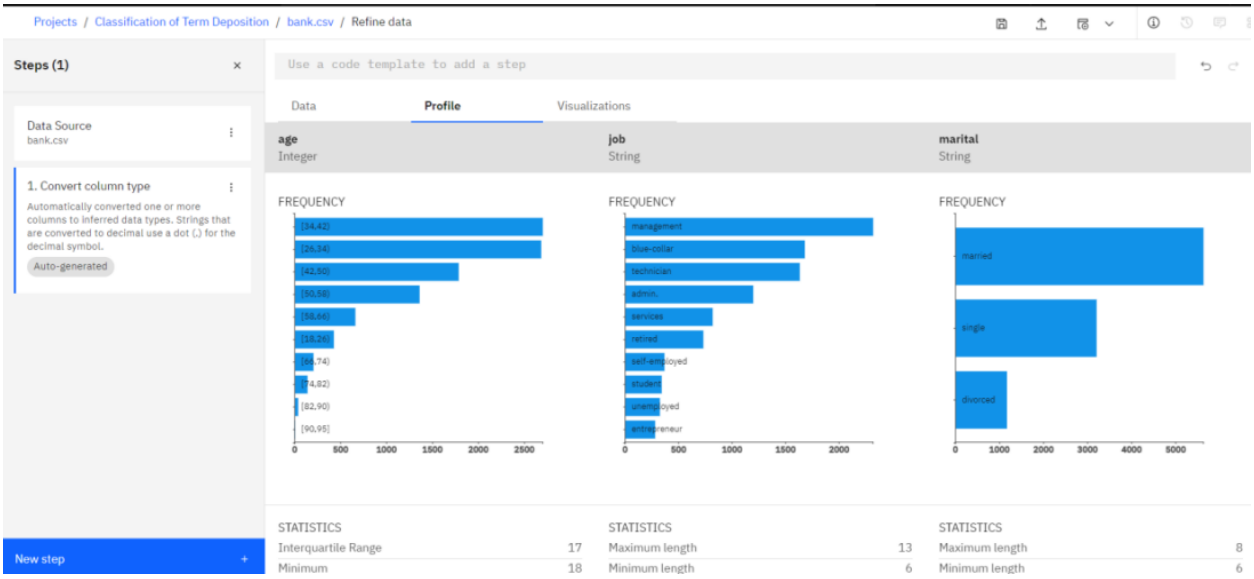
NAME : Harendhar K

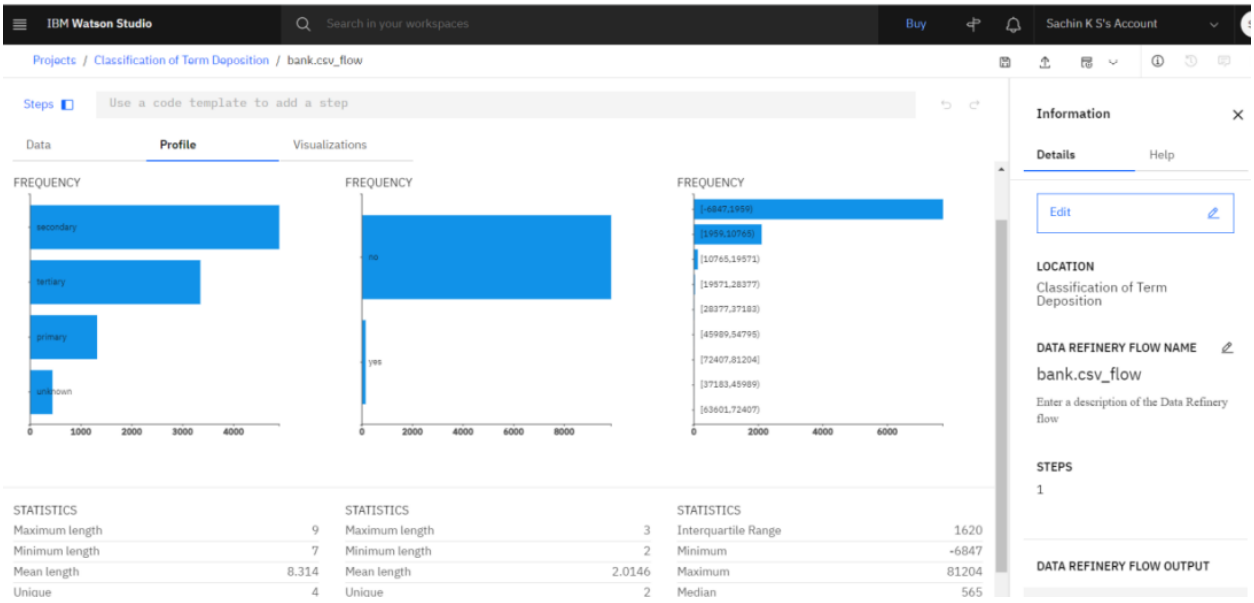
Reg no : 19BEE0140

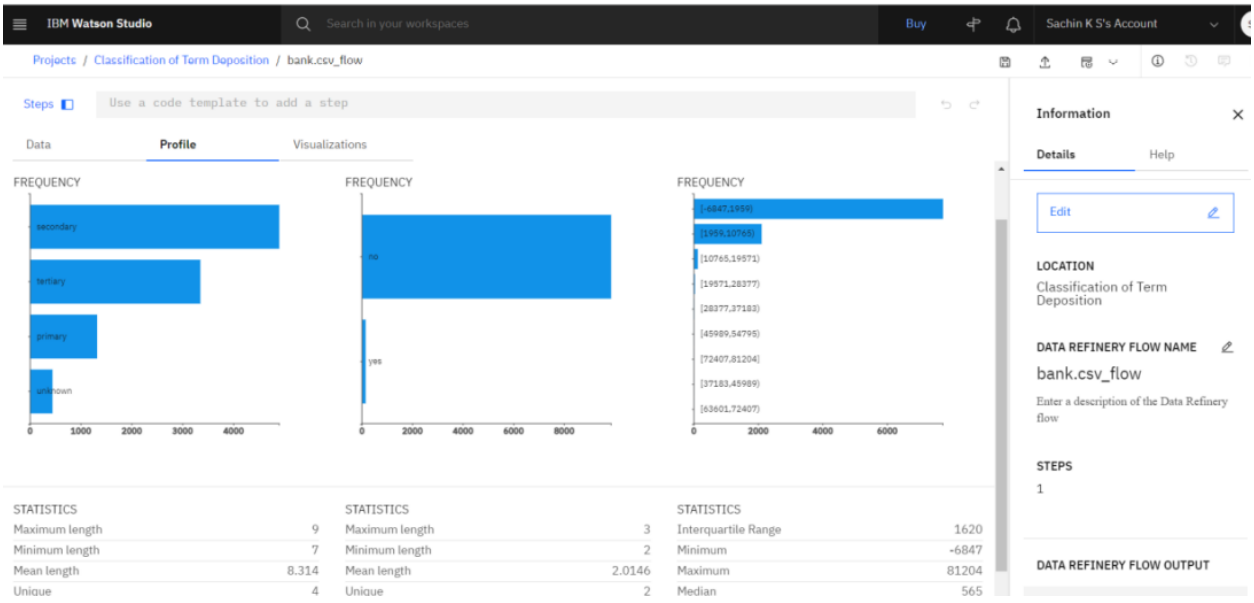
Campus: Vellore



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




IBM Watson Studio
Search in your workspaces
Buy
Sachin K S's Account
Projects / Classification of Term Deposition / bank.csv_flow
Steps
Use a code template to add a step
Data
Profile
Visualizations
FREQUENCY
secondary
tertiary
primary
unknown
0 1000 2000 3000 4000
FREQUENCY
no
yes
0 2000 4000 6000 8000
FREQUENCY
[-6847,1959)
[1959,10765)
[10765,19571)
[19571,28377)
[28377,37183)
[45989,54795)
[72407,81204)
[37183,45989)
[63601,72407)
0 2000 4000 6000
STATISTICS
Maximum length 9
Minimum length 7
Mean length 8.314
Unique 4
STATISTICS
Maximum length 3
Minimum length 2
Mean length 2.0146
Unique 2
STATISTICS
Interquartile Range 1620
Minimum -6847
Maximum 81204
Median 565
Information
Details
Help
Edit
LOCATION
Classification of Term Deposition
DATA REFINERY FLOW NAME
bank.csv_flow
Enter a description of the Data Refinery flow
STEPS
1
DATA REFINERY FLOW OUTPUT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Search in your workspaces
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Projects / Classification of Term Deposition / bank.csv_flow
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Visualizations
FREQUENCY
secondary
tertiary
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unknown
0 1000 2000 3000 4000
FREQUENCY
no
yes
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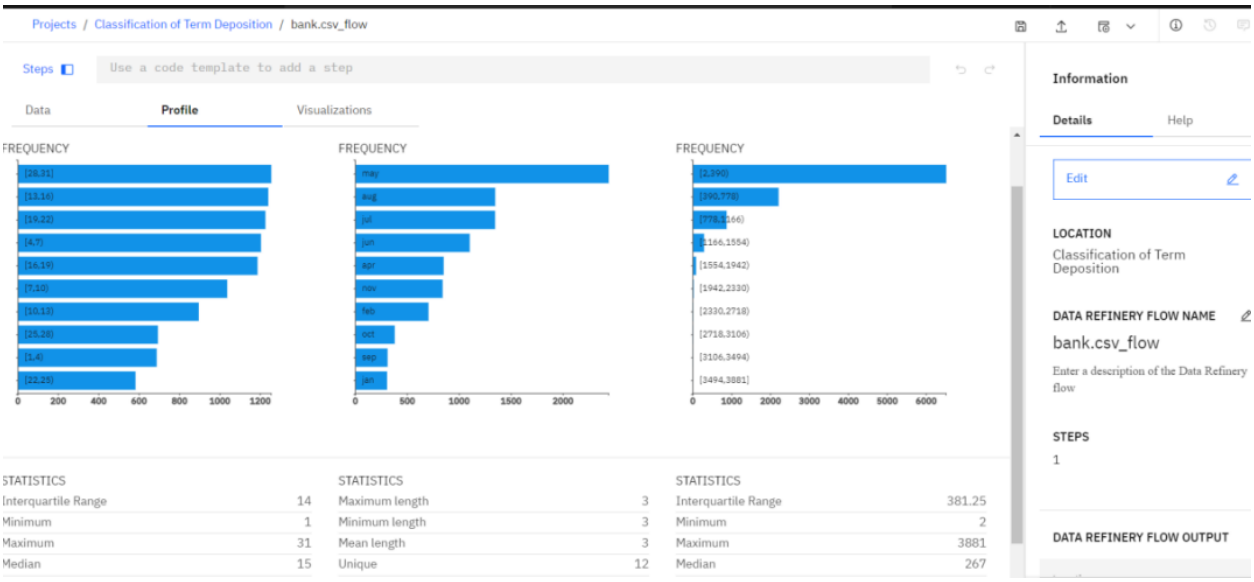
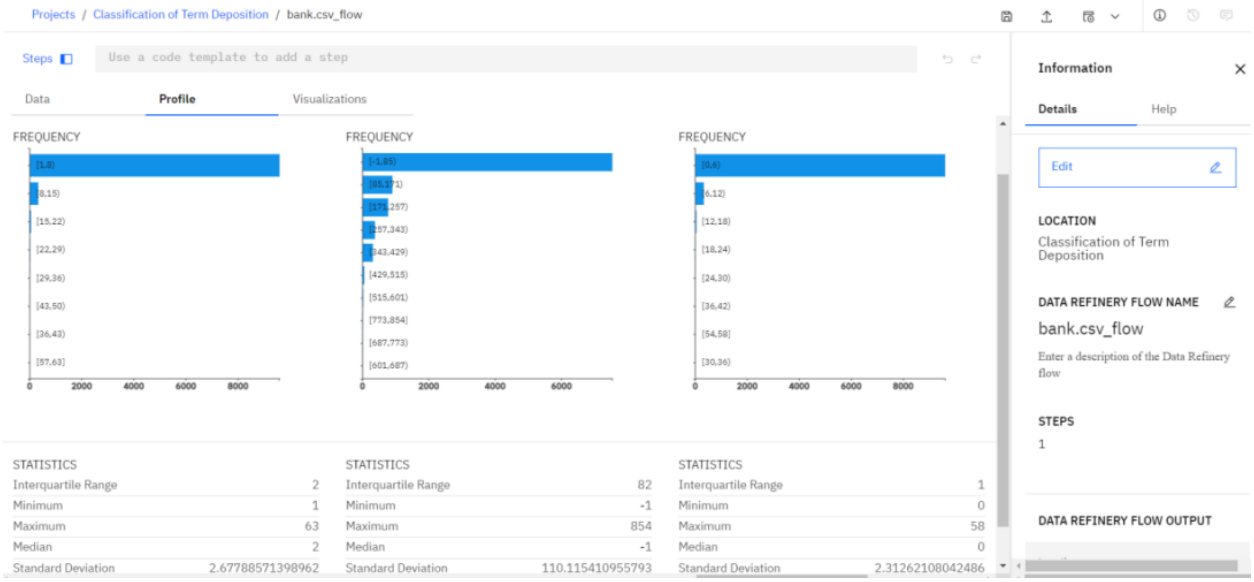
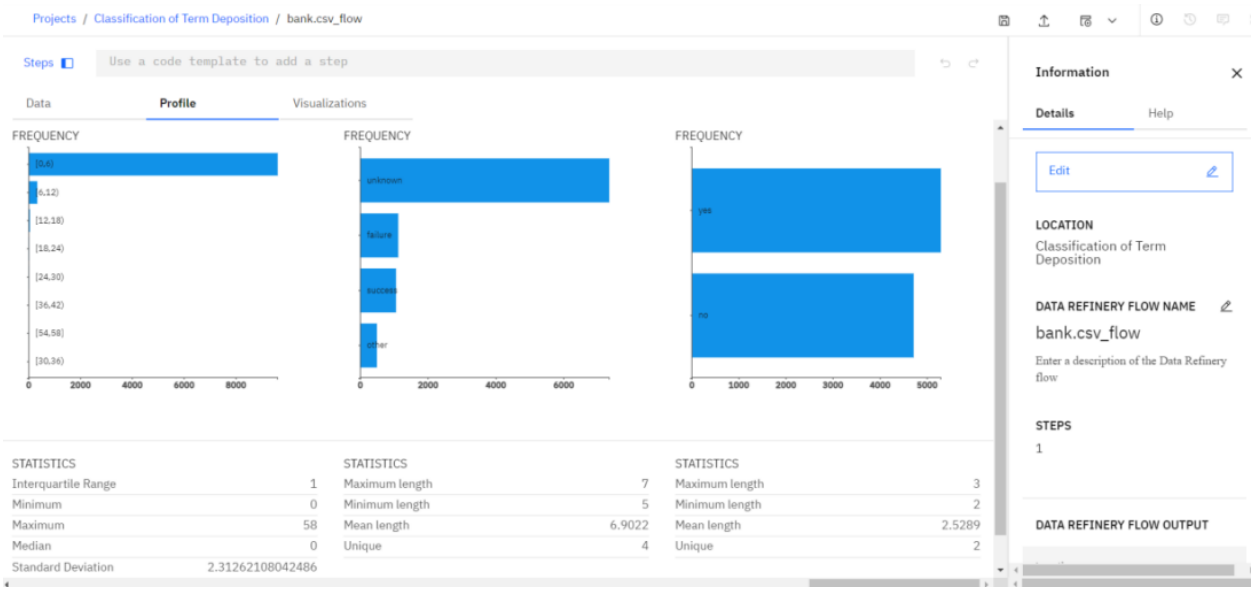
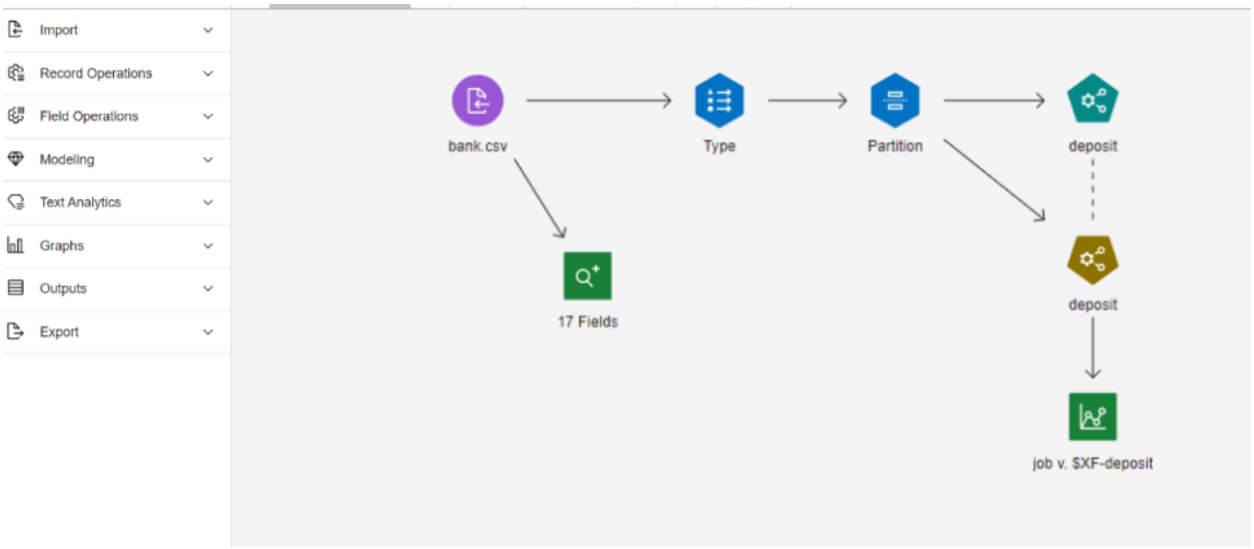
DATA REFINERY FLOW OUTPUT


Projects / Classification of Term Deposition / bank.csv_flow
Steps
Use a code template to add a step
Data
Profile
Visualizations
FREQUENCY
FREQUENCY
FREQUENCY
STATISTICS
Interquartile Range 14
Minimum 1
Maximum 31
Median 15
STATISTICS
Maximum length 3
Minimum length 3
Mean length 3
Unique 12
STATISTICS
Interquartile Range 381.25
Minimum 2
Maximum 3881
Median 267
Information
Details
Help
Edit
LOCATION
Classification of Term Deposition
DATA REFINERY FLOW NAME
bank.csv_flow
Enter a description of the Data Refinery flow
STEPS
1
DATA REFINERY FLOW OUTPUT


Projects / Classification of Term Deposition / bank.csv_flow
Steps
Use a code template to add a step
Data
Profile
Visualizations
FREQUENCY
FREQUENCY
FREQUENCY
STATISTICS
Interquartile Range 2
Minimum 1
Maximum 63
Median 2
Standard Deviation 2.67788571398962
STATISTICS
Interquartile Range 82
Minimum -1
Maximum 854
Median -1
Standard Deviation 110.115410955793
STATISTICS
Interquartile Range 1
Minimum 0
Maximum 58
Median 0
Standard Deviation 2.31262108042486
Information
Details
Help
Edit
LOCATION
Classification of Term Deposition
DATA REFINERY FLOW NAME
bank.csv_flow
Enter a description of the Data Refinery flow
STEPS
1
DATA REFINERY FLOW OUTPUT





View Output: Data Audit of [17 fields]

Compare

	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

View Output: Data Audit of [17 fields]

Compare

	Field	Measurement	Outliers	Extremes	Action	Impute Missing	Method	% Complete	Valid Records	Null Value	Empty String
1	age	Continuous	132	0	None	Never	Fixed	100.000	11162	0	0
2	job	Categorical	--	--	--	Never	Fixed	100.000	11162	0	0
3	marital	Categorical	--	--	--	Never	Fixed	100.000	11162	0	0
4	education	Categorical	--	--	--	Never	Fixed	100.000	11162	0	0
5	default	Categorical	--	--	--	Never	Fixed	100.000	11162	0	0
6	balance	Continuous	99	74	None	Never	Fixed	100.000	11162	0	0
7	housing	Categorical	--	--	--	Never	Fixed	100.000	11162	0	0
8	loan	Categorical	--	--	--	Never	Fixed	100.000	11162	0	0
9	contact	Categorical	--	--	--	Never	Fixed	100.000	11162	0	0
10	day	Continuous	0	0	None	Never	Fixed	100.000	11162	0	0

Type

Read Values | Clear All Values

Find in column Field

	Field	Measure	Role	Value mode	Values	Check
☐	# age	Continuous	None	Instantiated	18, 95	None
☐	abc job	Nominal	Input	Instantiated	admin., blue-collar...	None
☐	abc marital	Nominal	Input	Instantiated	divorced, married, ...	None
☐	abc education	Nominal	None	Instantiated	primary, secondar...	None
☐	abc default	Flag	None	Instantiated	no, yes	None
☐	# balance	Continuous	None	Instantiated	-6847, 81204	None
☐	abc housing	Flag	None	Instantiated	no, yes	None
☐	abc loan	Flag	None	Instantiated	no, yes	None

Cancel | Save

Type

Find in column Field

Field	Measure	Role	Value mode	Values	Check
abc contact	Nominal	None	Instantiated	cellular, telephone...	None
# day	Continuous	None	Instantiated	1, 31	None
abc month	Nominal	None	Instantiated	apr, aug, dec, feb, ...	None
# duration	Continuous	None	Instantiated	2, 3881	None
# campaign	Continuous	None	Instantiated	1, 63	None
# pdays	Continuous	None	Instantiated	-1, 854	None
# previous	Continuous	None	Instantiated	0, 58	None
abc poutcome	Nominal	None	Instantiated	failure, other, succ...	None

Type

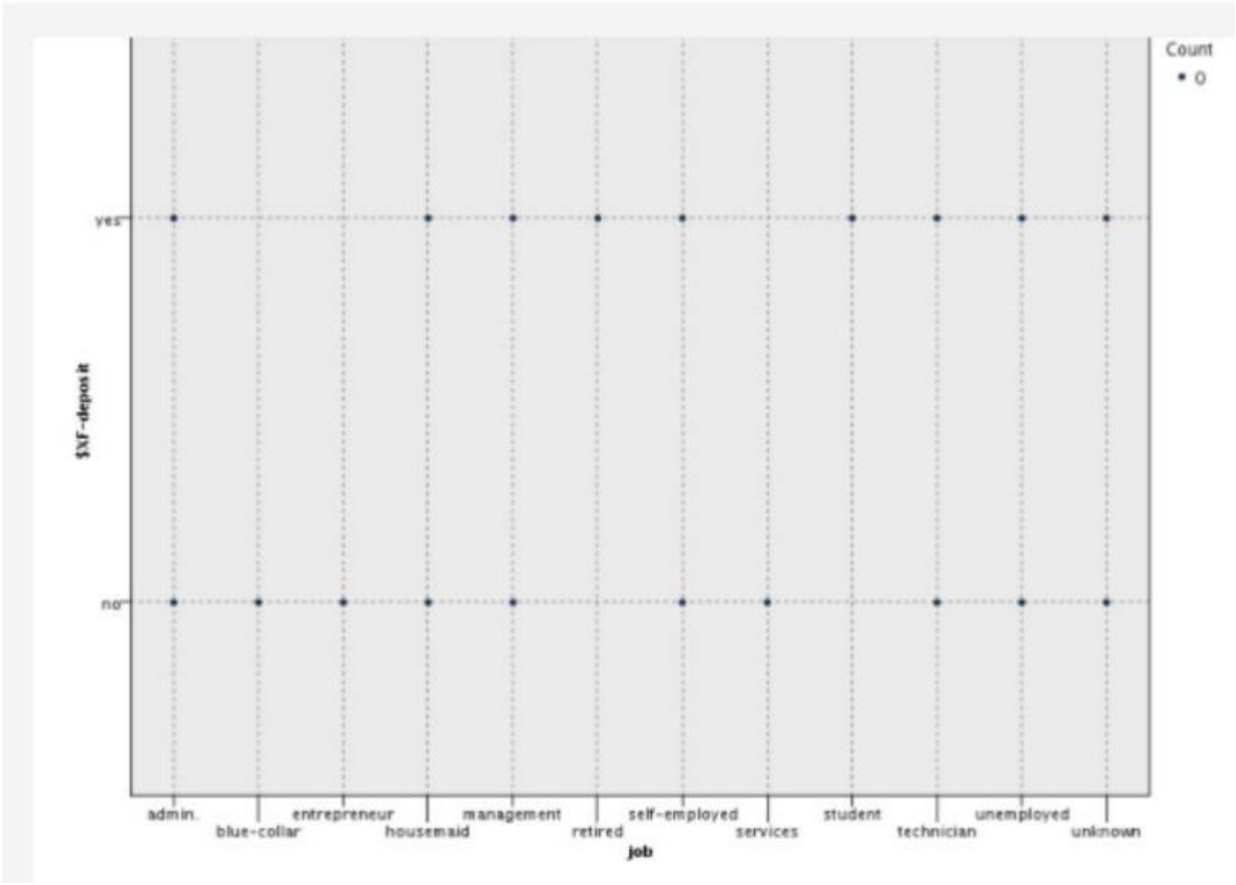
Find in column Field

Field	Measure	Role	Value mode	Values	Check
# day	Continuous	None	Instantiated	1, 31	None
abc month	Nominal	None	Instantiated	apr, aug, dec, feb, ...	None
# duration	Continuous	None	Instantiated	2, 3881	None
# campaign	Continuous	None	Instantiated	1, 63	None
# pdays	Continuous	None	Instantiated	-1, 854	None
# previous	Continuous	None	Instantiated	0, 58	None
abc poutcome	Nominal	None	Instantiated	failure, other, succ...	None
abc deposit	Flag	Target	Instantiated	no, yes	None

Format

Cancel Save

View Output: job v. $XF-deposit



View Model: deposit

Auto Classifier

Models

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	2	57.295	57.295	0.595	0.595	0.581	0.548	
☑	LSVM 1	Linear SVM	< 1	2	57.414	57.414	0.609	0.609	0.408	0.573	
☑	Tree-AS 1	CHAID	< 1	2	57.622	57.622	0.605	0.605	0.378	0.583	
☑	CHAID 1	CHAID	< 1	2	57.622	57.622	0.605	0.605	0.378	0.583	
☑	C5 1	C5.0	< 1	2	57.444	57.444	0.587	0.587	0.388	0.578	