Assignment-3

Name: G.Naga Sai Praneeth

Regd.No:19MIM10044

Classification of Term Deposit Buyers for Retail Banking

Dataset: bank.csv

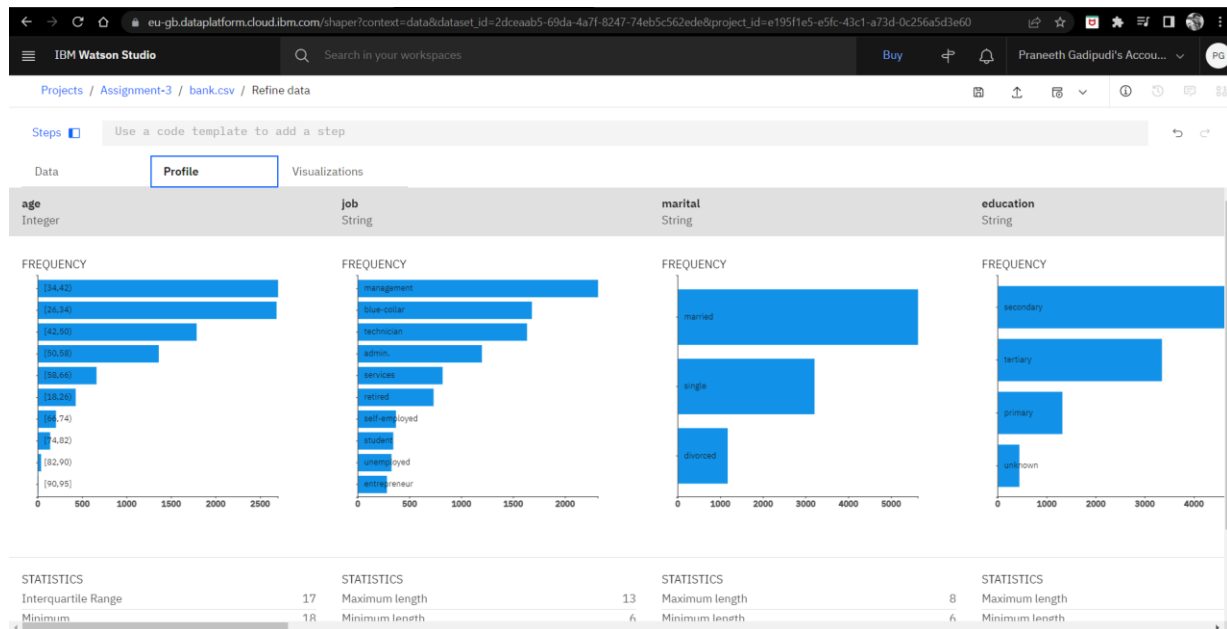**Create the project and upload the dataset, after uploading the dataset create a data refinery.**

Data Refine:

Profile:

Visualization:

Scatter Plot age vs job
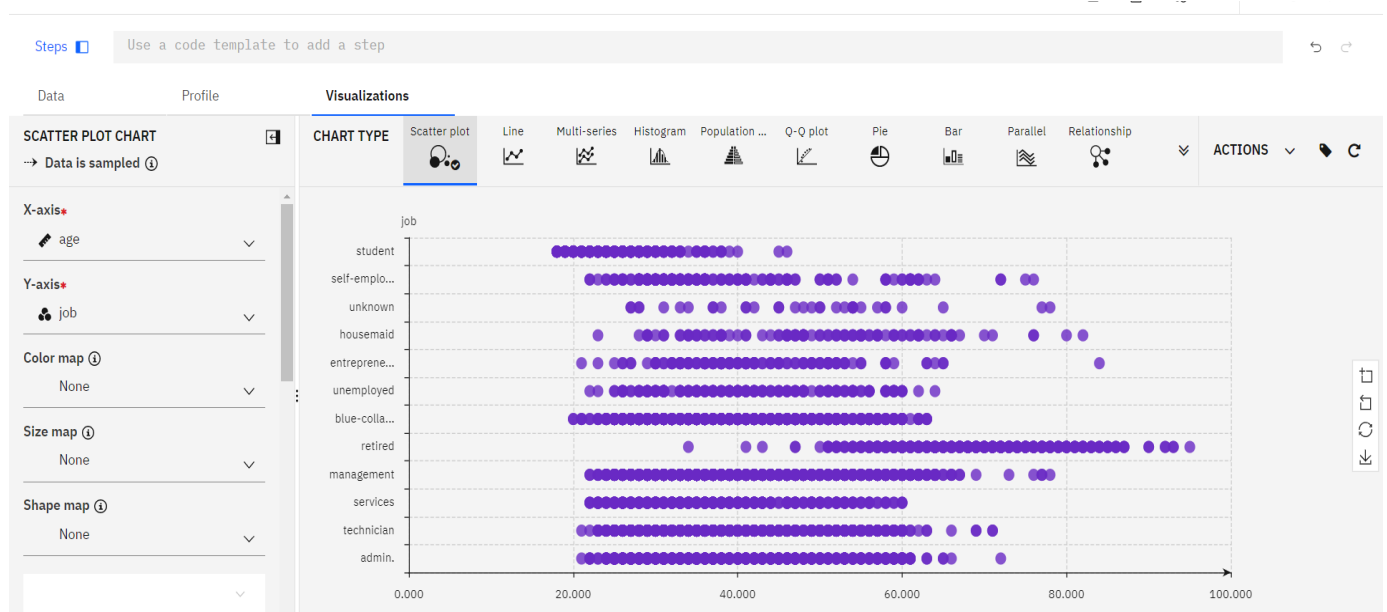
Box Plot:
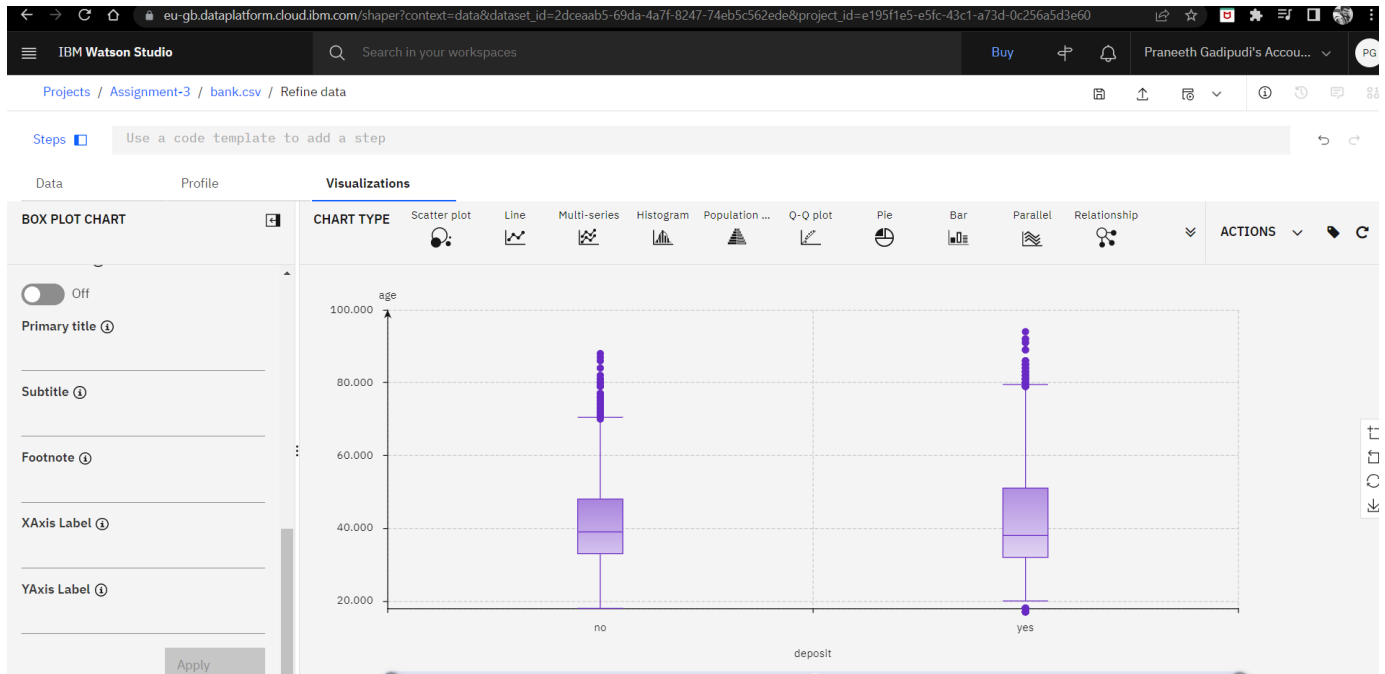
Create a SPSS Modeler and dataset:

Add Data Audit:

Data Audit Output:

View Output: 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

Type Node:

Output:

Change the outliers and extremes to 0 and run the model again

Partition Node:

Creating XG Boost Tree Model:

Output:

View Model: deposit

Confusion matrix ⓘ

Observed	Predicted		
	0	**1**	**Percent correct**
0	3969	627	86.4%
1	738	3606	83.0%
Percent correct	84.3%	85.2%	84.7%

Less correct   More correct

View Model: deposit

Model information ⓘ

Experiment parameters

Prediction column	deposit
Algorithm	XGBoost Binary Classification Model
Number of features	29
Number of evaluation instances	8940
NumberofTrees	10
MaximumDepth	6
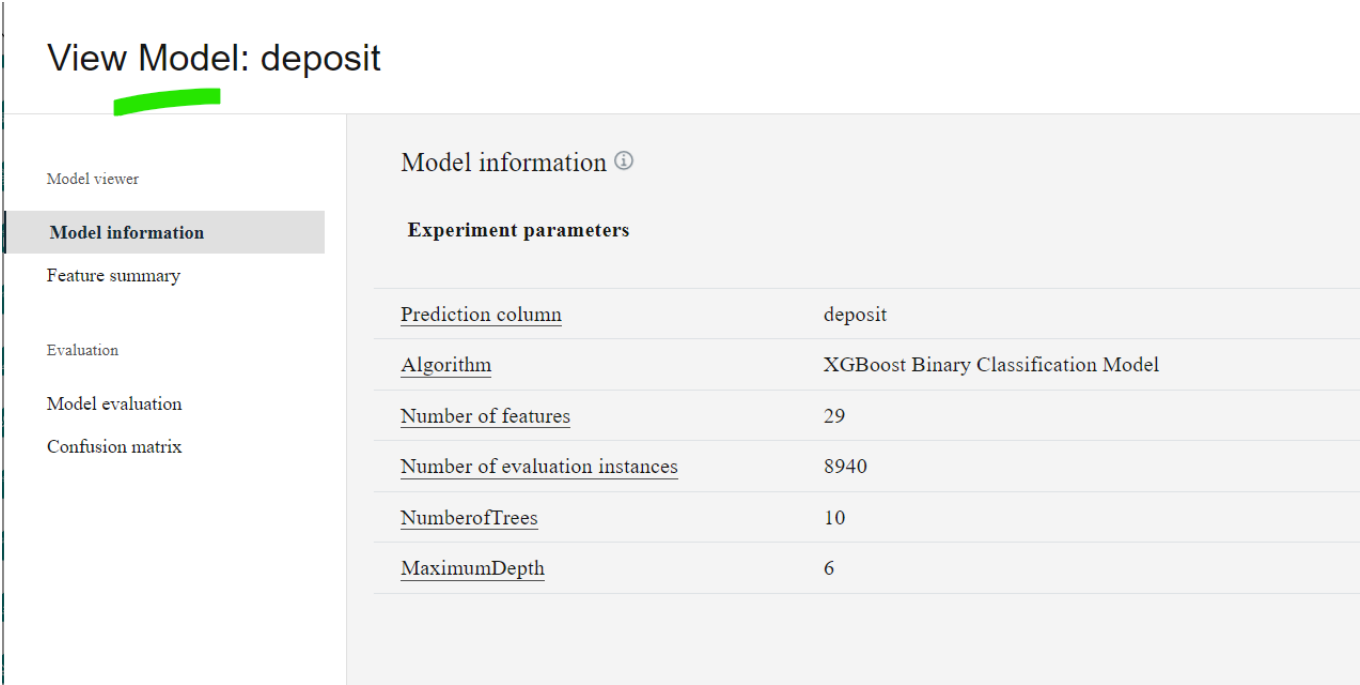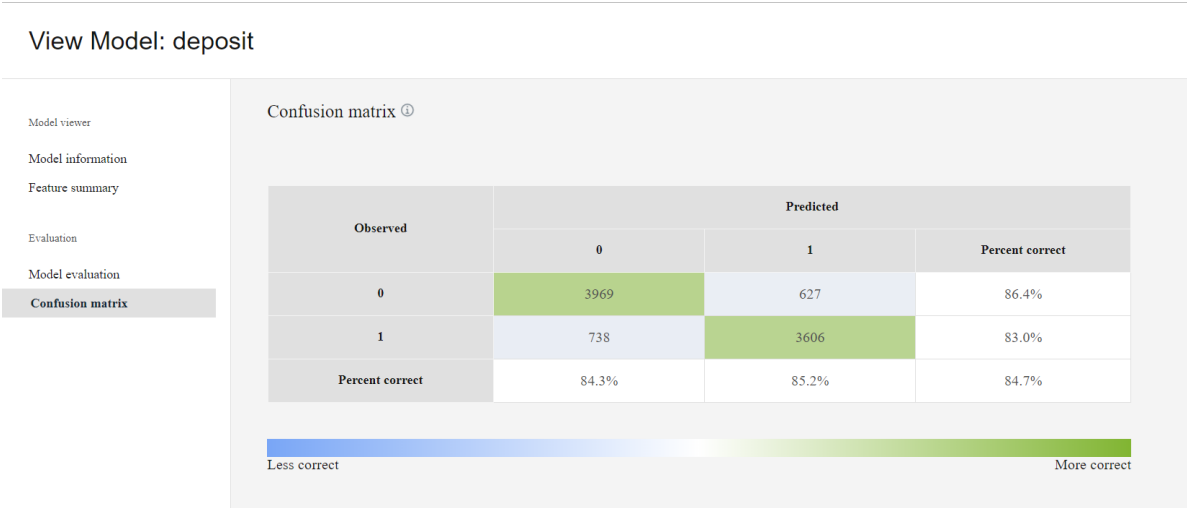
Creating Table and Analysis Nodes:

Analysis Output:

Output Table:

Using Custom Field Roles and then select 4 attributes:

Build the Model again:
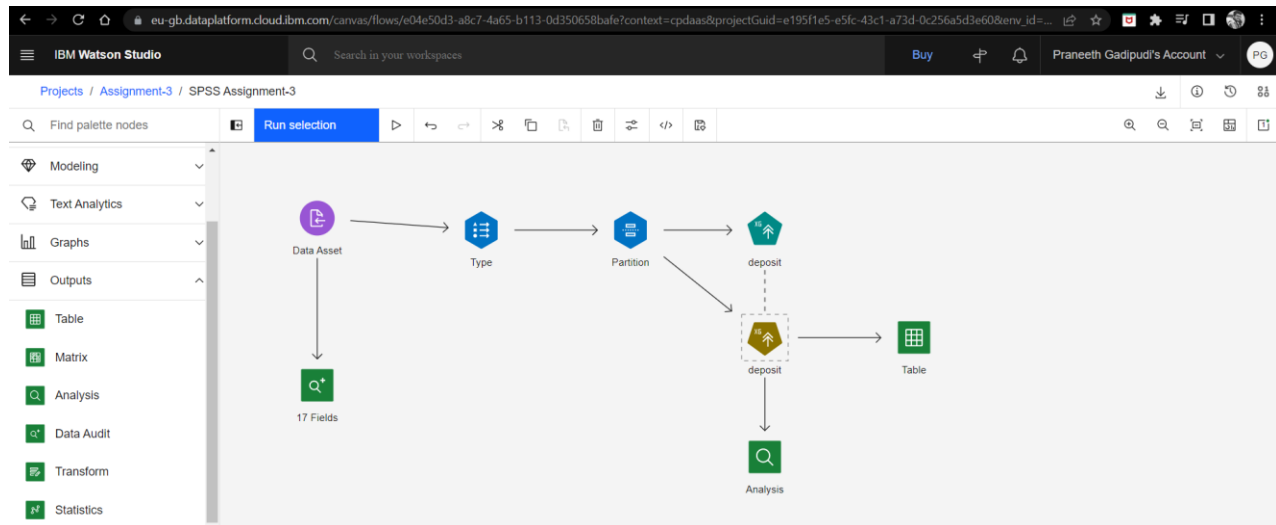
Analysis Output:

View Output: Analysis of [deposit] #1

Compare

Collapse All

Results for output field deposit

Comparing $XGT-deposit with deposit

'Partition'	1_Training		2_Testing	
Correct	7,575	84.73%	1,787	80.42%
Wrong	1,365	15.27%	435	19.58%
Total	8,940		2,222	

Table Output:

IBM Watson Studio

Praneeth Gadipudi's Account

View Output: Table (20 fields, 11,162 records) #1

Compare

	age	job	marital	education	default	balance	housing	loan	contact	day	month	duration	campaign	pdays	previous	poutcome	
1	59	admin.	married	secondary	no	2343	yes	no	unknown	5	may	1042	1	-1	0	unknown	y
2	56	admin.	married	secondary	no	45	no	no	unknown	5	may	1467	1	-1	0	unknown	y
3	41	technician	married	secondary	no	1270	yes	no	unknown	5	may	1389	1	-1	0	unknown	y
4	55	services	married	secondary	no	2476	yes	no	unknown	5	may	579	1	-1	0	unknown	y
5	54	admin.	married	tertiary	no	184	no	no	unknown	5	may	673	2	-1	0	unknown	y
6	42	management	single	tertiary	no	0	yes	yes	unknown	5	may	562	2	-1	0	unknown	y
7	56	management	married	tertiary	no	830	yes	yes	unknown	6	may	1201	1	-1	0	unknown	y
8	60	retired	divorced	secondary	no	545	yes	no	unknown	6	may	1030	1	-1	0	unknown	y
9	37	technician	married	secondary	no	1	yes	no	unknown	6	may	608	1	-1	0	unknown	y
10	28	services	single	secondary	no	5090	yes	no	unknown	6	may	1297	3	-1	0	unknown	y
11	38	admin.	single	secondary	no	100	yes	no	unknown	7	may	786	1	-1	0	unknown	y
12	30	blue-collar	married	secondary	no	309	yes	no	unknown	7	may	1574	2	-1	0	unknown	y
13	29	management	married	tertiary	no	199	yes	yes	unknown	7	may	1689	4	-1	0	unknown	y
14	46	blue-collar	single	tertiary	no	460	yes	no	unknown	7	may	1102	2	-1	0	unknown	y
15	31	technician	single	tertiary	no	703	yes	no	unknown	8	may	943	2	-1	0	unknown	y