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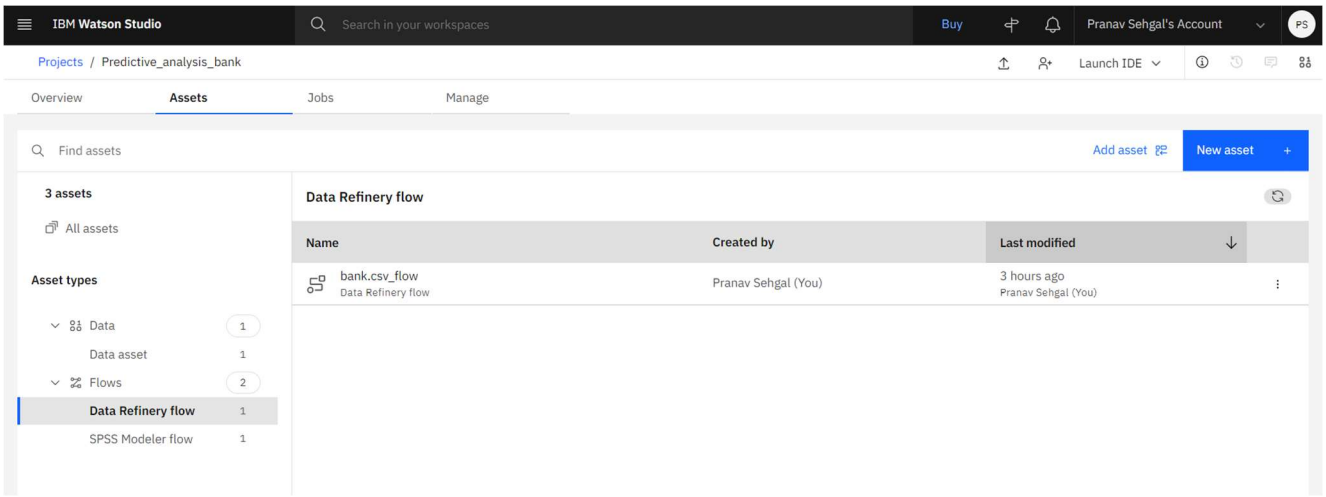
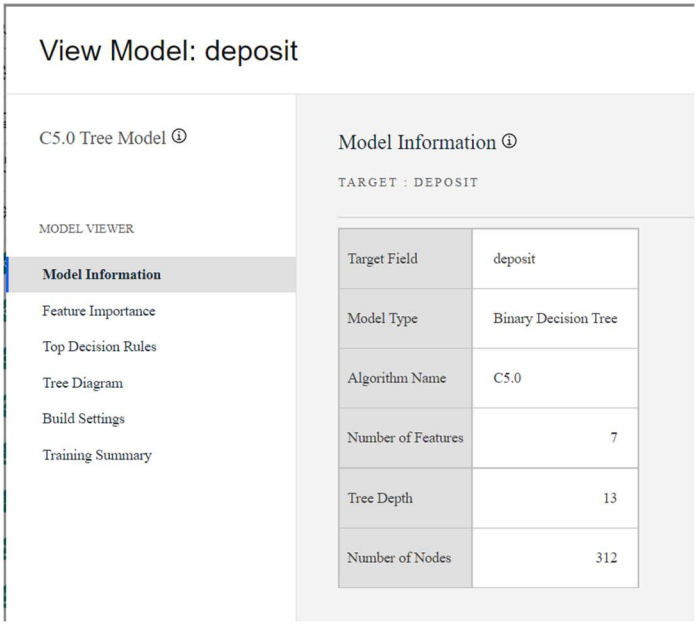
ASSIGNMENT-3



After running Auto Classifier model, I found out that C5.0 Model had the maximum accuracy.

Thus, analysis and table output are formed using C5.0 model.



View Model: deposit

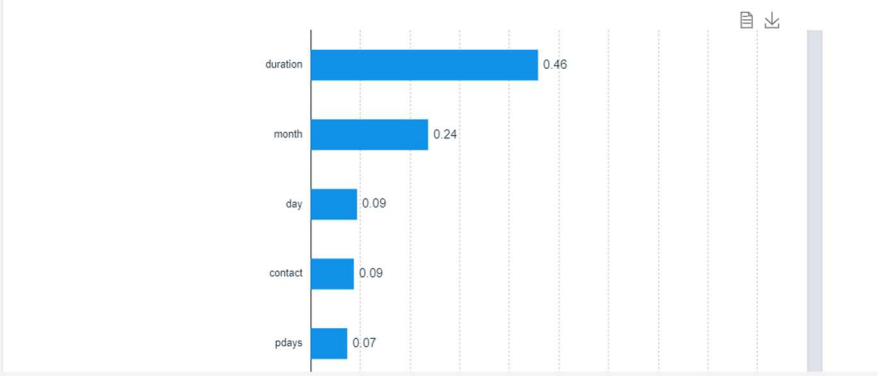
C5.0 Tree Model

MODEL VIEWER

- Model Information
- **Feature Importance**
- Top Decision Rules
- Tree Diagram
- Build Settings
- Training Summary

Feature Importance

TARGET : DEPOSIT



View Model: deposit

C5.0 Tree Model

MODEL VIEWER

- Model Information
- Feature Importance
- **Top Decision Rules**
- Tree Diagram
- Build Settings
- Training Summary

Top Decision Rules

TARGET : DEPOSIT

Rule ID	Rule	Mode category	Record count	Record percentage	Rule confidence
311	duration > 206.5 and duration > 472.5	yes	2,957	26.492	81.784
67	duration <= 206.5 and age <= 60.5 and pdays <= 17.0 and month = may and contact is in • telephone • unknown	no	695	6.226	99.426
28	duration <= 206.5 and age <= 60.5 and pdays <= 17.0 and month = aug	no	564	5.053	94.170

View Model: deposit

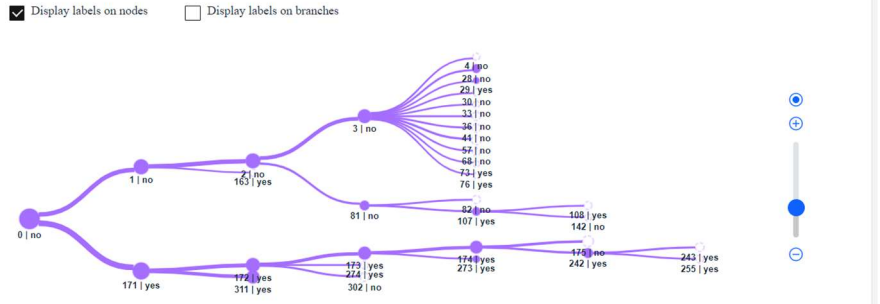
C5.0 Tree Model

MODEL VIEWER

- Model Information
- Feature Importance
- Top Decision Rules
- **Tree Diagram**
- Build Settings
- Training Summary

Tree Diagram

TARGET : DEPOSIT



View Model: deposit

C5.0 Tree Model

MODEL VIEWER

- Model Information
- Feature Importance
- Top Decision Rules
- Tree Diagram
- Build Settings
- **Training Summary**

Training Summary

TARGET : DEPOSIT

Algorithm	C5
Model type	Classification
Date built	Sun Apr 24 09:55:42 UTC 2022
Elapsed time for model build	0 hours, 0 mins, 0 secs

View Output: 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: Analysis of [deposit] #7

Compare

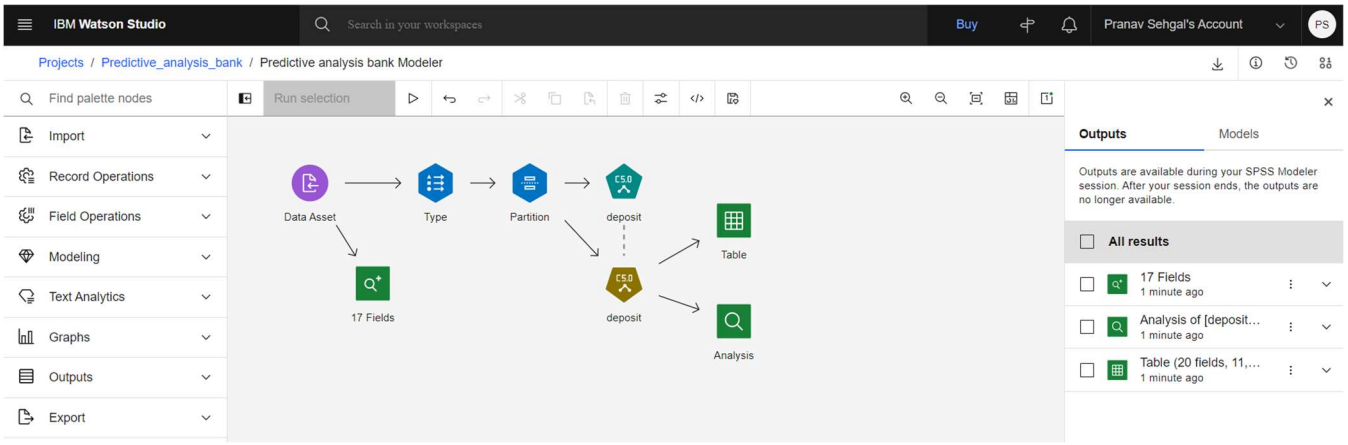
Collapse All

Results for output field deposit

Comparing $C-deposit with deposit

'Partition'	1_Training		2_Testing	
Correct	6,876	88.27%	2,975	88.23%
Wrong	914	11.73%	397	11.77%
Total	7,790		3,372	

View Output: Table (20 fields, 11,162 records) #7

Compare

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