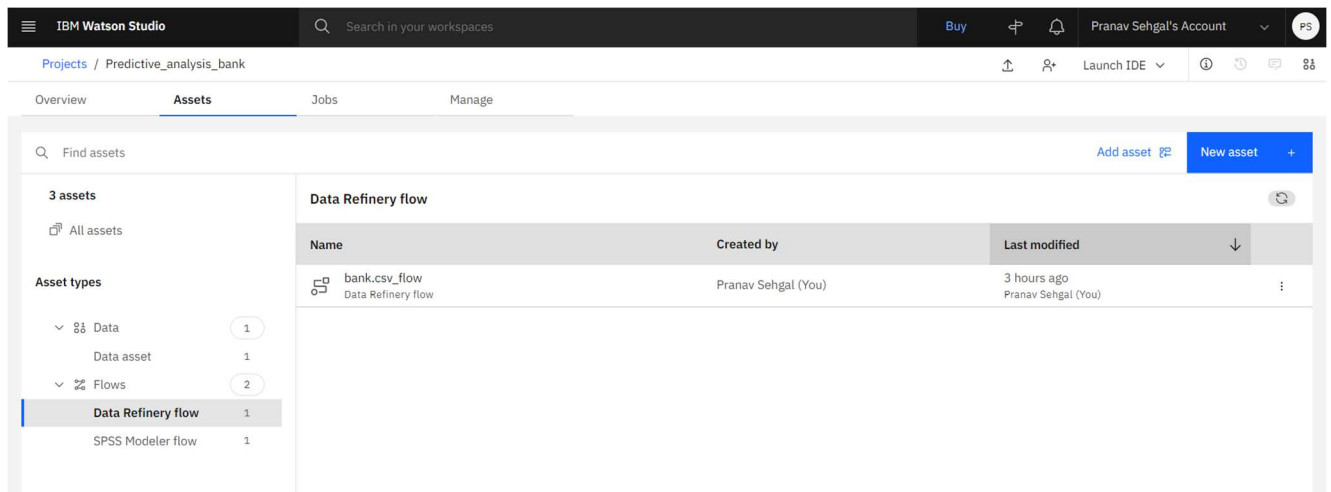


NAME: Pranav Sehgal

Registration Number: 20BCE0898

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ASSIGNMENT-3

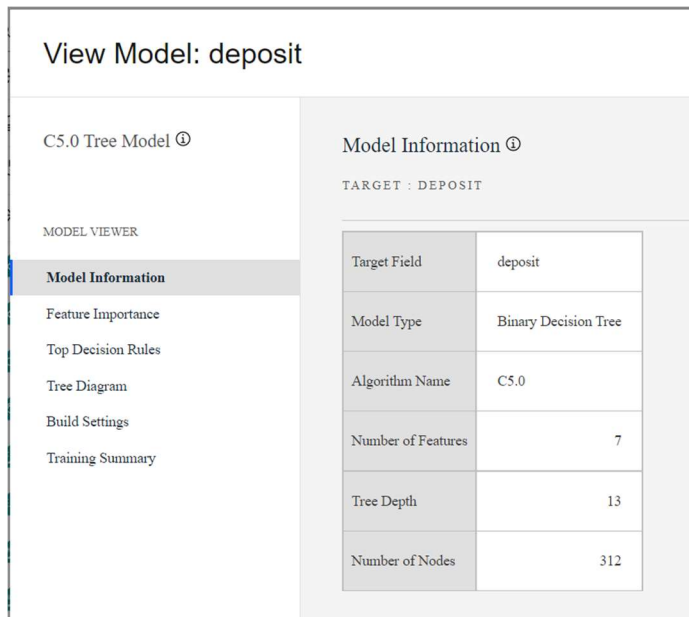


The screenshot shows the IBM Watson Studio interface. The top navigation bar includes the IBM Watson Studio logo, a search bar, and user account information. The main content area is titled 'Predictive_analysis_bank' and shows a list of assets. On the left, there is a sidebar with 'Asset types' including Data (1), Flows (2), and Data Refinery flow (1). The main table lists the assets, with the first entry being 'bank.csv_flow' (Data Refinery flow) created by 'Pranav Sehgal (You)' 3 hours ago.

Name	Created by	Last modified
bank.csv_flow Data Refinery flow	Pranav Sehgal (You)	3 hours ago Pranav Sehgal (You)

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

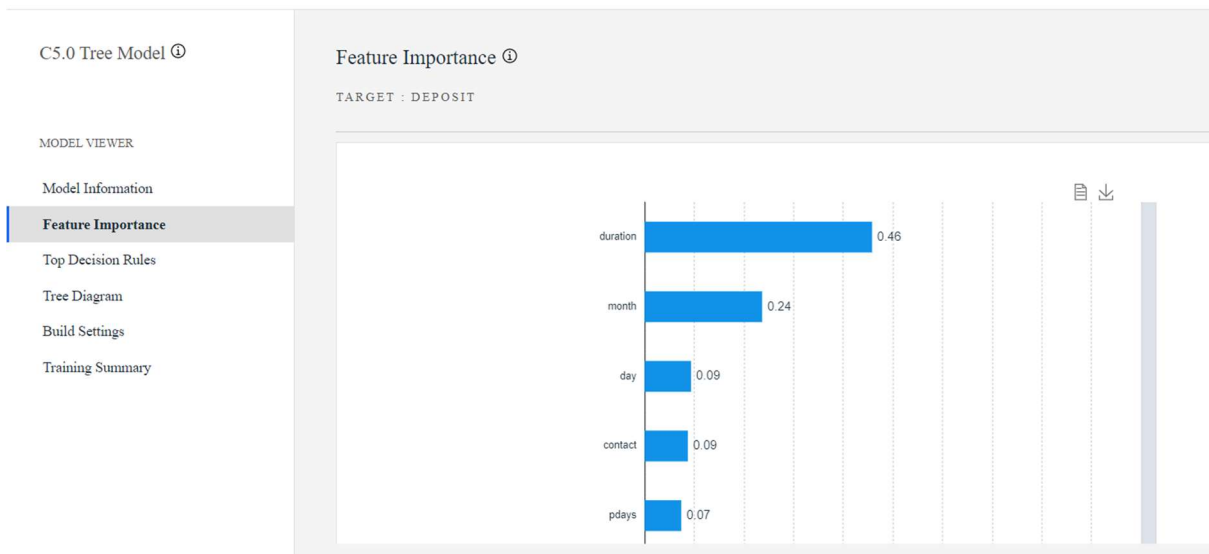
Thus, analysis and table output are formed using C5.0 model.



The screenshot shows the 'View Model: deposit' page in IBM Watson Studio. The left sidebar contains a 'MODEL VIEWER' section with options like Model Information, Feature Importance, Top Decision Rules, Tree Diagram, Build Settings, and Training Summary. The main content area displays 'Model Information' for a C5.0 Tree Model. The target field is 'deposit', and the model type is 'Binary Decision Tree'. The algorithm name is 'C5.0'. The number of features is 7, the tree depth is 13, and the number of nodes is 312.

Target Field	deposit
Model Type	Binary Decision Tree
Algorithm Name	C5.0
Number of Features	7
Tree Depth	13
Number of Nodes	312

View Model: deposit



View Model: deposit

C5.0 Tree Model ⓘ

MODEL VIEWER

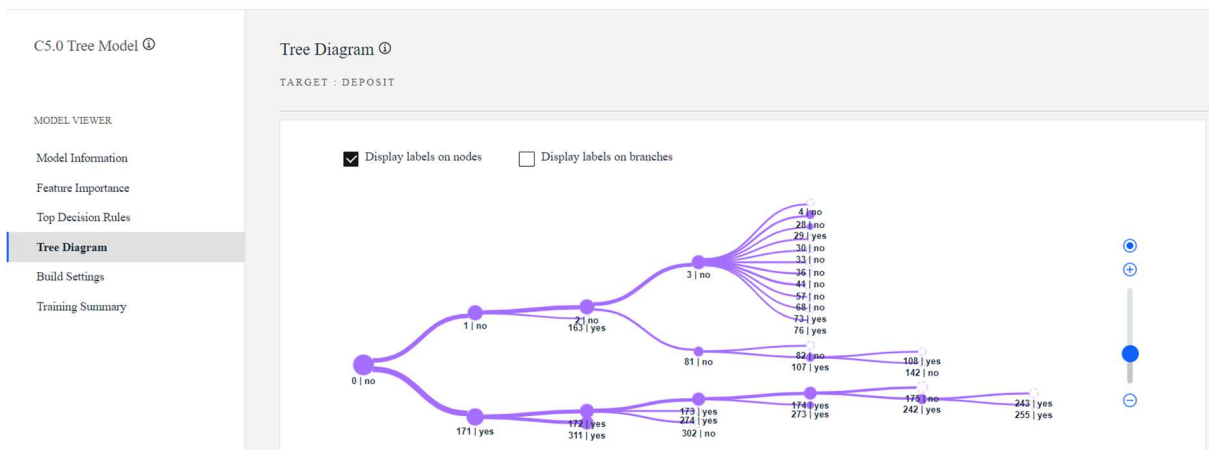
- Model Information
- Feature Importance
- Top Decision Rules**
- Tree Diagram
- Build Settings
- Training Summary

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 <ul style="list-style-type: none">• 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



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

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](#)

X

	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

IBM Watson Studio

Search in your workspaces

Buy

Pranav Sehgal's Account

PS

Projects / Predictive_analysis_bank / Predictive analysis bank Modeler

Find palette nodes

Run selection

17 Fields

Table

Analysis

Outputs

Models

Outputs are available during your SPSS Modeler session. After your session ends, the outputs are no longer available.

All results

17 Fields
1 minute ago

Analysis of [deposit...
1 minute ago

Table (20 fields, 11,...
1 minute ago