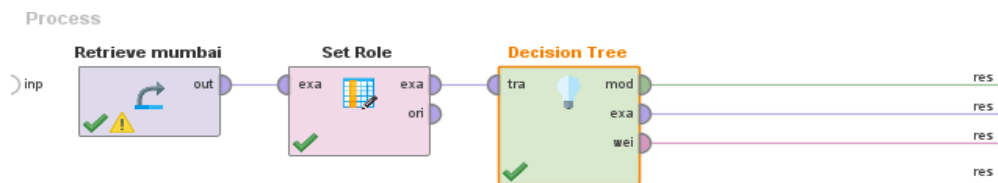


Batch: TY IT B2**Experiment Number: 3****Roll Number: 16010421073****Name: Keyur Patel**

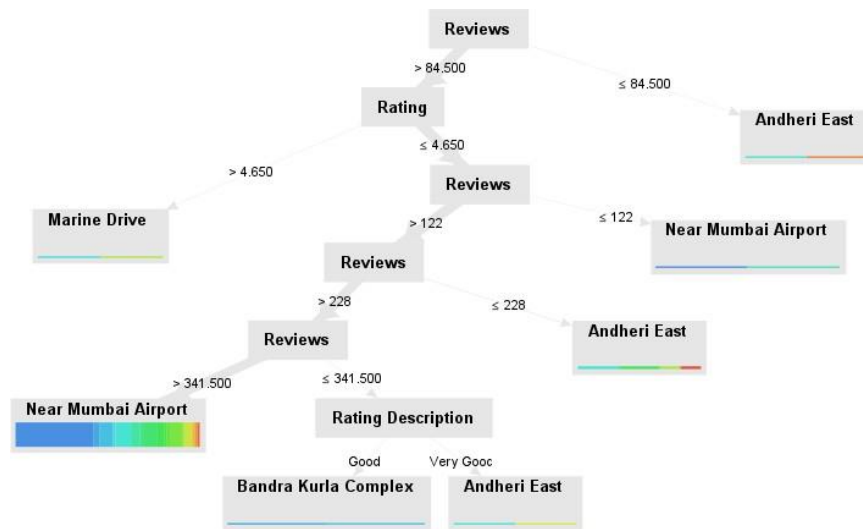
Aim of the Experiment: To analyze the data and execute any two classification algorithms using RapidMiner

Output/Result:

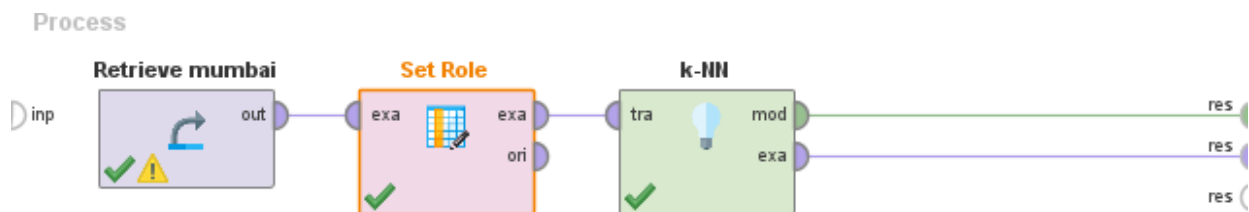
Decision Tree Algorithm:



Row No.	Location	Hotel Name	Rating	Rating Desc...	Reviews	Star Rating	Nearest Lan...	Distance to ...	Price
1	Near Mumbai...	The Orchid H...	4	Very Good	5593	5	T1 - Chhatrap...	930 m	6,499
2	Bandra Kurla ...	Trident Bandr...	4.600	Excellent	4987	5	T1 - Chhatrap...	7.8 km	8,750
3	South Mumbai	ITC Grand Ce...	4.500	Excellent	2445	5	Cooper hospi...	620 m	14,000
4	Near Mumbai...	IRA By Orchid...	3.900	Very Good	4707	4	T2 - Chhatrap...	2.3 km	5,099
5	Marine Drive	Trident Narim...	4.600	Excellent	5563	5	Queen's Nec...	470 m	11,250
6	Near Mumbai...	The Lalit Mu...	4.100	Very Good	6468	5	T2 - Chhatrap...	1.3 km	11,160
7	Andheri East	Ginger Mumb...	3.700	Very Good	5340	4	T1 - Chhatrap...	3.3 km	3,679
8	Near Mumbai...	Taj Santacruz...	4.600	Excellent	4563	5	T1 - Chhatrap...	560 m	9,000
9	Chembur	Hotel Surya P...	3.900	Very Good	121	3	?	?	3,939
10	Near Mumbai...	Hilton Mumb...	4.200	Very Good	1686	5	T2 - Chhatrap...	1.6 km	9,100
11	Near Mumbai...	Holiday Inn M...	4.300	Excellent	2744	5	T2 - Chhatrap...	3.0 km	6,999
12	South Mumbai	goSTOPS Mu...	3.900	Very Good	1376	?	?	?	816
13	Andheri East	The Regale b...	4.100	Very Good	4946	3	T2 - Chhatrap...	3.6 km	4,427
14	Bandra West	Taj Lands En...	4.500	Excellent	4222	5	Band Stand	230 m	11,000



k-NN Algorithm:



Row No.	Location	Hotel Name	Rating	Rating Desc...	Reviews	Star Rating	Nearest Lan...	Distance to ...	Price
1	Near Mumbai...	The Orchid H...	4	Very Good	5593	5	T1 - Chhatrap...	930 m	6,499
2	Bandra Kurla ...	Trident Bandr...	4.600	Excellent	4987	5	T1 - Chhatrap...	7.8 km	8,750
3	South Mumbai	ITC Grand Ce...	4.500	Excellent	2445	5	Cooper hospi...	620 m	14,000
4	Near Mumbai...	IRA By Orchid...	3.900	Very Good	4707	4	T2 - Chhatrap...	2.3 km	5,099
5	Marine Drive	Trident Narim...	4.600	Excellent	5563	5	Queen's Nec...	470 m	11,250
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9	Chembur	Hotel Surya P...	3.900	Very Good	121	3	?	?	3,939
10	Near Mumbai...	Hilton Mumb...	4.200	Very Good	1686	5	T2 - Chhatrap...	1.6 km	9,100
11	Near Mumbai...	Holiday Inn M...	4.300	Excellent	2744	5	T2 - Chhatrap...	3.0 km	6,999
12	South Mumbai	goSTOPS Mu...	3.900	Very Good	1376	?	?	?	816
13	Andheri East	The Regale b...	4.100	Very Good	4946	3	T2 - Chhatrap...	3.6 km	4,427
14	Bandra West	Taj Lands En...	4.500	Excellent	4222	5	Band Stand	230 m	11,000

KNNClassification

Weighted 5-Nearest Neighbour model for classification.

The model contains 99 examples with 9 dimensions of the following classes:

Near Mumbai Airport
 Bandra Kurla Complex
 South Mumbai
 Marine Drive
 Andheri East
 Chembur
 South Mumbai
 Bandra West
 Juhu
 Goregaon
 In Mumbai Airport
 Jogeshwari East
 Powai
 Khar West
 Colaba
 Churchgate
 Vikhroli West
 Ghatkopar West
 Borivali West
 Andheri West
 Asalpha
 Madh
 Sakinaka

Post Lab Question-Answers:

1. List any five open sources / freeware tools available for data mining.

- WEKA:
WEKA (Waikato Environment for Knowledge Analysis) is a popular open-source tool for data mining and machine learning. It offers a wide range of algorithms, visualization tools, and data preprocessing capabilities. WEKA is written in Java and provides a user-friendly graphical interface.
- RapidMiner:
RapidMiner is an open-source data science platform that includes tools for data mining, machine learning, and advanced analytics. It offers a visual workflow design interface and supports various data preprocessing and modeling techniques. RapidMiner provides both free and commercial editions.
- Orange:
Orange is an open-source data visualization and analysis tool for novice and expert users. It includes a visual programming interface and offers a wide range of data analysis and machine learning components. Orange is particularly known for its user-friendly interface and educational resources.
- KNIME:
KNIME (Konstanz Information Miner) is an open-source data analytics, reporting, and integration platform. It features a visual workflow designer and supports various data

manipulation, analysis, and modeling tasks. KNIME is extendable with plugins and has a strong user community.

- **R:**
R is a powerful and widely used open-source programming language and environment specifically designed for data analysis and statistical computing. While it's not a standalone tool like the others on this list, R is a versatile platform with a vast ecosystem of packages for data mining and machine learning.

Outcomes:

CO2: Apply concepts of different types of Learning and Neural Network

Conclusion (based on the Results and outcomes achieved):

In this experiment we analyze the data and executed two classification algorithms Decision Tree and k-NN using RapidMiner and displayed the outcome.

References:

Books/ Journals/ Websites:

1. Han, Kamber, "Data Mining Concepts and Techniques", Morgan Kaufmann 3rd Edition