

Course Information

- **Faculty Name:** Mr.K.Srikanth
- **Course Name:** Data Mining and Techniques
- **Class:** III B.Tech I Semester
- **Academic Year:** 2023-2024
- **Activity Name:** Flipped Classroom
- **Topic :** Association Rule Mining

Objective of the Activity:

The objective of the Flipped Classroom activity was to shift the initial learning of Association Rule Mining from the classroom to the student's own space, allowing in-class time to focus on problem-solving, discussions, and practical applications. This approach helped students explore and understand concepts such as support, confidence, lift, and the Apriori algorithm independently, enabling them to apply these concepts to real-world datasets during class activities.

Pre-Class Preparation

Instructor Preparation:

Created and shared a video lecture explaining

- The basics of Association Rule Mining.
- Definitions of support, confidence, and lift with examples.
- Step-by-step working of the Apriori algorithm.
- Curated additional online resources, including articles, blogs, and solved examples, for students to review.
- Prepared a real-world dataset for in-class hands-on activities.

Student Preparation:

Students were tasked to:

- Watch the shared video lecture.
- Read the assigned online resources.
- Solve at least one example problem from the provided materials.
- Prepare three questions or doubts about Association Rule Mining to discuss in class.

In-Class Flipped Classroom Implementation

Review Session:

- The instructor began the session by addressing common doubts raised by students from their pre-class preparation.
- Briefly summarized the key concepts to reinforce understanding.

Hands-On Group Activity:

- Students were divided into small groups and provided with a retail dataset.
- Each group was tasked with:
 - Identifying frequent itemsets using the Apriori algorithm.
 - Deriving association rules from the frequent itemsets.
 - Calculating support, confidence, and lift for each rule.
- Groups documented their results and reasoning.

Presentation and Discussion:



- Each group presented their findings, including the generated rules and their significance in decision-making.
- Peer feedback and instructor guidance were provided to refine understanding and methods.

Assessment Criteria:

- Understanding of Concepts-10 M
- Application of Algorithm-10 M
- Presentation and Explanation-10 M

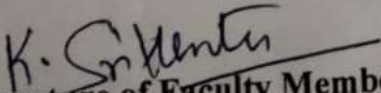
Instructor Feedback: The flipped classroom activity was highly effective in engaging students with the topic of Association Rule Mining. Most students demonstrated a solid understanding of the concepts and their applications, with group discussions adding value to peer learning. The class average score ranged between 24-27 out of 30, indicating strong performance and active participation.

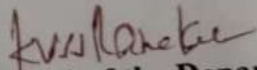
Images / Screenshot of the practice

Flipped Classroom Activity	Screenshot of the practice
Activity on Flipped Classroom by Batch 3	
Activity on Flipped Classroom by Batch 4	

Benefits of practice: As an instructor, I found that the Blended Learning activity:

- **Active Engagement:** The flipped classroom approach encouraged students to take responsibility for their learning before the class, enhancing engagement during in-class activities.
- **Enhanced Problem-Solving Skills:** Hands-on tasks allowed students to apply theoretical knowledge to real-world problems, deepening their understanding of Association Rule Mining.
- **Collaboration:** Group-based activities fostered teamwork, communication, and collaborative problem-solving skills.
- **Effective Use of Class Time:** More in-class time was available for practical applications and personalized feedback.


Signature of Faculty Member


Head of the Department

ASSESSMENT FORM

Batch No	Roll Number	Student Name	Understanding of Concepts (10 M)	Application of Algorithm (10 M)	Presentation and Explanation	Total (30 M)
1	21NN1A1277	Gangadhari Luthiya Prabhavathi	7	8	7	22
	21NN1A12B9	Taviti Prasanna Lakshmi	9	8	7	24
	21NN1A12A9	Rajavarapu Yasaswini	7	5	5	17
	21NN1A12B6	Sri Goutami Kalisetty	6	7	7	20
	21NN1A1269	Bellam Sri Haritha	7	5	8	19
2	21NN1A12B7	Sunkara Triveni	8	6	7	21
	21NN1A1275	Gali Lakshmi Madhuri	8	8	7	23
	21NN1A1268	Bathula Kusuma Priya	7	7	6	20
	21NN1A1297	Nallapaneni Bhargavi	8	6	7	21
	21NN1A1281	Gudeti Nayomi	6	6	6	18
3	21NN1A1273	Duggempudi Lakshmi Gayathri	7	7	6	20
	21NN1A12B8	Sura Amrutha Nandini	8	6	8	22
	21NN1A1282	Gunda Naga Lakshmi	8	8	8	24
	21NN1A12C0	Telagathoti Sushma	7	6	8	21
4	21NN1A12A2	Pasupuleti Anusha	8	5	6	19
	21NN1A1287	Kalavalapalli Keerthi	7	8	6	21
	21NN1A1283	Guntupalli Pavani	6	8	4	18
	21NN1A1280	Gayam Nitya Reddy	6	7	5	19
5	21NN1A12C7	Yaddanapudi Hemalatha	8	7	6	21
	21NN1A1263	Aaishah	7	7	6	20
	21NN1A12A1	Pamulapati Durga Bhavani	6	7	5	18
	21NN1A1270	Dabbakuti Tejasri	8	7	7	22
6	21NN1A1279	Gangireddy Akhila Reddy	8	9	7	24
	21NN1A1293	Kurra Vanaja	8	8	7	23
	21NN1A12C4	Veluguri Lakshmi Snehitha	7	6	7	20
	21NN1A12B3	Shaik Nazarana	8	6	6	19
7	21NN1A12A6	Pesala Divya Meghana	9	8	5	22
	21NN1A1284	Inturu Jahnavi	8	9	7	24
	21NN1A1289	Karnati Chandrika Prasanna	7	7	9	23
	22NN5A1201	Komma Siva Bhavya	6	7	8	21
8	21NN1A12C3	Timmiri Vyshnavi	8	8	6	22

	21NNIA1264	Akkala Lakshmi Prasanna	6	6	5	17
	21NNIA12A8	Pushadapu Sri Charitha	8	6	7	21
	21NNIA1288	Kandukuri Sai Bhargavi	9	8	7	24
9	21NNIA12C5	Vemula Anitha	7	6	7	20
	21NNIA1276	Ganduri Gayathri	8	6	9	23
	21NNIA12B0	Ravipati Madhura Sri	7	7	7	21
	21NNIA1295	Marlapati Chandana	8	7	7	22
10	21NNIA1274	Duggineni Amulya	8	8	7	23
	21NNIA12C6	Videla Ranga Naga Sai Sirisha	8	6	7	21
	21NNIA1278	Gangaraju VsnsIm Snigdha	8	8	6	22
	21NNIA1271	Deepika Varsha Dasari	9	8	7	24
11	21NNIA1294	Madatala Kalyani	7	7	8	22
	21NNIA1267	B Phani Sri Naga Preethi	8	7	8	23
	21NNIA12B1	Sangu Manasa	7	7	6	20
	21NNIA1296	Nallamekala Chandana Priya	8	7	8	23
12	21NNIA1290	Katakam Vyshnavi	9	8	7	24
	21NNIA1298	Oggu Bhavya Sri Venkata Supriya	8	7	6	21
	21NNIA1291	Katrapati Sri Lakshmi Swapnika	8	8	7	22
	21NNIA12B4	Shaik Saniya Sulthana	9	8	7	23
13	21NNIA12A7	Pulipati Srilakshmi	8	6	5	19
	21NNIA12A0	Pachala Likhitanjali	9	7	8	24
	21NNIA12B2	Shaik Naazia	8	7	8	23
	21NNIA1266	Avanigadda Vani Ujwala	7	7	8	22
14	21NNIA1272	Dhanalakshmi Annamaneni	8	7	6	21
	21NNIA12B5	Sirasaganandla Pavitra	8	7	7	22
	21NNIA12C2	Thotakura Theerdha Naga Thanuja	9	7	8	24
	21NNIA12A5	Pedineedi Leelavathi	9	8	8	25
15	21NNIA12A3	Pathan Mubeena	8	7	8	23
	21NNIA1285	K Lakshmi Sravanthi	7	6	8	21
	21NNIA1299	Origanti Prasanna	7	7	8	22
	21NNIA1292	Kurapati Naga Satya Thrishitha	9	7	8	24
16	21NNIA12A4	Patthi Bhuvaneswari	8	8	7	23
	21NNIA1286	Kakunuri Srilatha	9	7	8	24
	21NNIA1265	Andugula Kavya	7	8	8	23
	21NNIA12C1	Thota Anitha	8	9	7	24

K. Sillente
Signature of the Faculty