VIGNAN'S NIRULA
INSTITUTE OF TECHNOLOGY & SCIENCE FOR WOMEN
(Approved by AICTE, New Delhi & Affiliated to JNTU Kakinada)
Vignan Avenue, Peda Palakaluru, Guntur - 522009

Department of Information Technology

Innovative Teaching Practice

Faculty Name : Mrs.Naga Navya
Course Name : DataWarehousing and Business Intelligence
Class : IV B.Tech I Semester
Academic Year : 2021-2022
Title of the Topic : Data Preprocessing
Activity Name : Think-Pair-Share

Objective of the Activity:

The objective of this Think-Pair-Share activity is to encourage student engagement by allowing them to first think individually, then discuss their thoughts with a partner, and finally share their insights with the larger group. This promotes collaboration, helps develop communication skills, and increases participation, allowing for diverse perspectives on a topic.

Activity Procedure:

1. **Preparation**:

    - Data preprocessing is an important step in the data mining process. It refers to the cleaning, transforming, and integrating of data in order to make it ready for analysis. The goal of data preprocessing is to improve the quality of the data and to make it more suitable for the specific data mining task.

2. **Phase 1 – Think (5-7 minutes)**:

    - Each student works individually to analyze a given scenario and complete the following tasks:
    - Data Cleaning, Data Integration, Data Transformation, Data Reduction etc
    - Determine which data can be used.
    - Create a draft diagram of data.
    - Students document their individual answers and reasoning on the worksheet.

3. **Phase 2 – Pair (10-15 minutes)**:

    - Students partner up to:
    - Compare their individual diagrams and reasoning.
    - Discuss and refine their understanding of Data Cleaning, Data Integration, Data Transformation, Data Reduction .

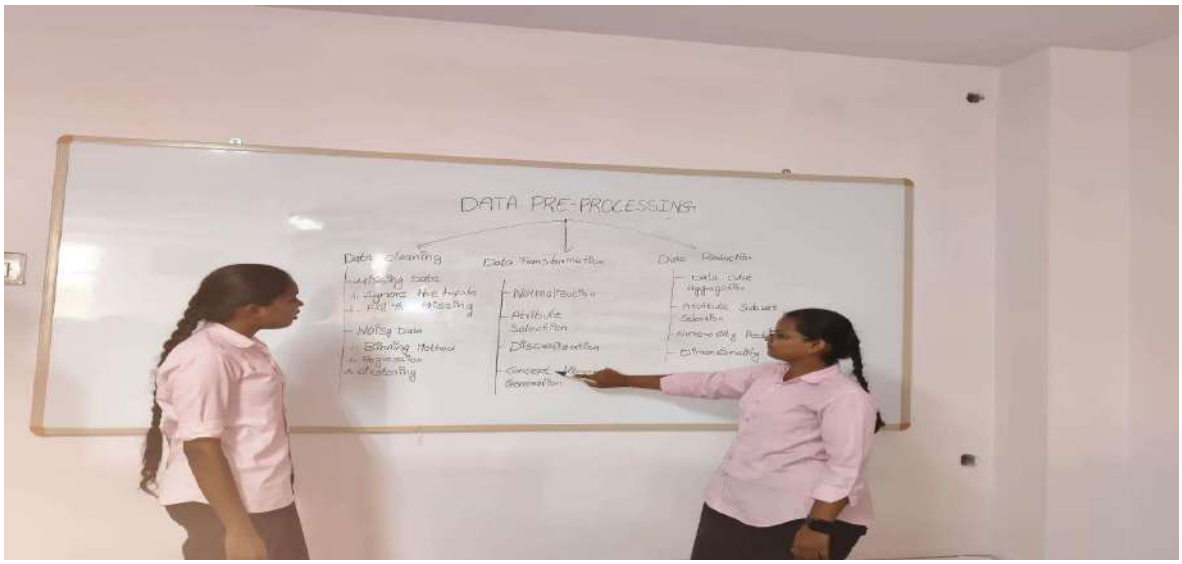
4. **Phase 3 – Share (10-12 minutes)**:

- How they applied Data Cleaning, Data Integration, Data Transformation, Data Reduction .
- Challenges they faced and how they resolved them.

Wrap-Up (5 minutes):

- Students reflect on their worksheets and discussions, answering the following questions:
    1. Which concepts of theData Cleaning, Data Integration, Data Transformation, Data Reduction . were the most challenging to understand?
    2. How do specialization and generalization enhance the design of an diagram?
- The instructor summarizes the activity by highlighting the practical applications of the Data Cleaning, Data Integration, Data Transformation, Data Reduction .

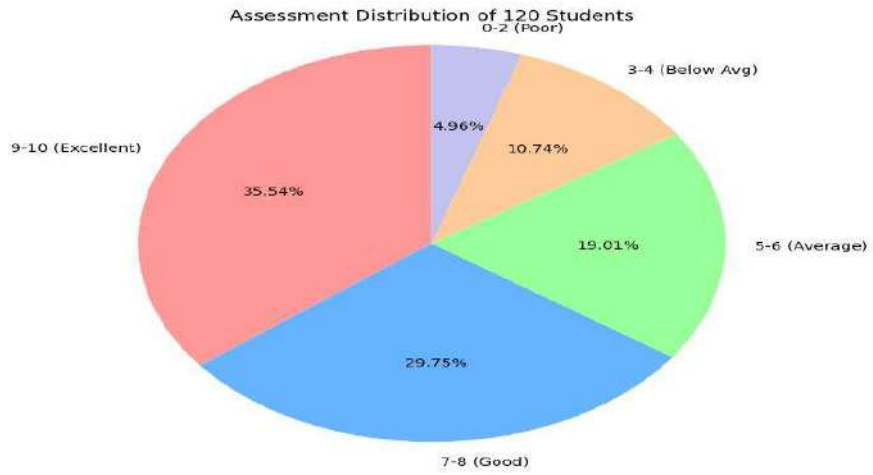
- **Screenshot of the Practice**



Assessment Analysis

Marks Range	Number of Students	Percentage
9-10 (Excellent)	43	35.58%
7-8 (Good)	36	30.00%

5-6 (Average)	23	19.17%
3-4 (Below Avg)	13	10.83%
0-2 (Poor)	6	5.00%
Total	120	100%



Conclusion of Think-Pair-Share Activity

The Think-Pair-Share activity effectively helped students understand and apply ER model concepts like entities, attributes, specialization, and generalization. By analyzing scenarios, collaborating on diagrams, and sharing insights, students developed practical database design skills. The activity emphasized real-world applications, fostering deeper engagement and collaborative learning.

Signature of the Faculty **Head of the Department**