RAMCO INSTITUTE OF TECHNOLOGY

RAJAPALAYAM

Department of Artificial Intelligence and Data Science

Academic Year: 2023- 2024 (Odd Semester)

Active Learning Best practices: Theory with Handson Practice

Degree, Semester & Branch: I Sem. B.Tech. Artificial Intelligence and Data Science

Course Code & Title: - GE3151 & Problem Solving and Python Programming

Name of the Faculty member: Dr. M. Kaliappan/Prof & Head-AI & DS

Theme of discussion: Slicing Techniques in List data type

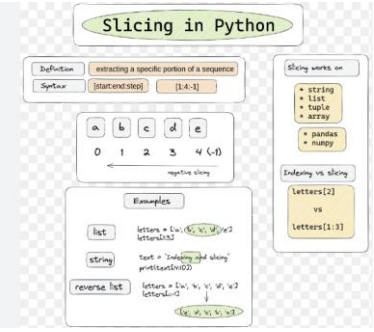
Topics Covered: Unit- 1 & II

Date and Time: 04.12.2023 & 03.10 P.M to 04.00 P.M

Course Outcome: CO5

- **Topic Learning Outcome: TLO1**

- **Activity Chosen:** Theory with Handson Practice
  Active Learning Best practices: Theory with Handson Practice - Cooperative Learning Technique
  Topic:



Learning Outcomes

1. **Demonstrate Conceptual Understanding:**
    - Articulate key theoretical concepts and principles.
2. **Apply Theoretical Knowledge:**
    - Translate theoretical concepts into practical applications.
    - Solve real-world problems using acquired theoretical knowledge.
3. **Critical Thinking and Problem-Solving:**
    - Analyze and evaluate situations to identify appropriate solutions.
    - Develop critical thinking skills through hands-on problem-solving.
4. **Skill Development:**
    - Acquire practical skills relevant to the theoretical framework.
    - Demonstrate proficiency in applying acquired skills.
5. **Integration of Theory and Practice:**
    - Connect theoretical concepts with practical applications.
    - Integrate knowledge from different areas for a holistic understanding.

Procedure:

1. **Identify Learning Objectives:**
    - Define clear and specific learning objectives for both the theoretical and practical components.
2. **Design Theoretical Content:**
    - Develop instructional materials that cover key theoretical concepts.
    - Use multimedia, presentations, or interactive content to enhance understanding.
3. **Hands-On Activity Design:**
    - Design hands-on activities that directly apply the theoretical knowledge.
    - Ensure the activities align with the learning objectives.
4. **Provide Necessary Resources:**
    - Make sure participants have access to all the resources needed for the hands-on activities, such as equipment, software, or materials.
5. **Instructional Delivery:**
    - Present theoretical content through lectures, discussions, or multimedia presentations.
    - Clearly explain the connection between theory and practical application.
6. **Demonstration:**
    - Conduct a demonstration of the hands-on activity to provide a model for participants.
    - Clarify any questions or concerns regarding the practical aspect.
7. **Guided Practice:**
    - Facilitate a guided practice session where participants can apply the theoretical concepts in a controlled environment.
    - Provide support and feedback during this phase.
8. **Independent Practice:**
    - Allow participants to work independently on hands-on activities, encouraging problem-

solving and critical thinking.

- Foster a collaborative environment for peer learning.

Glimpses:

ReflectiveReport

Challenges and strategies:

Bridging theory with hands-on practice requires resource alignment and overcoming logistical constraints. Strategies: Integrate real-world examples into theoretical concepts, foster collaboration between academia and industry, leverage simulation tools, and implement project-based learning approaches.

Observations:

Students grasp theoretical concepts more effectively when complemented with hands-on practice. Practical application enhances retention and promotes a deeper understanding. Challenges may arise in aligning theoretical content with applicable exercises, requiring dynamic instructional strategies. Successful integration fosters a well-rounded educational experience, preparing students for real-world applications.

Students Response:

Engagement and Interest:

Students show increased engagement and interest when theoretical concepts are accompanied by hands-on practice. Practical applications make the subject matter more tangible and relatable, fostering a deeper connection to the material.

Improved Understanding:

Hands-on practice helps students translate abstract theories into real-world scenarios, leading to a more profound understanding of the subject. The application of theoretical knowledge in practical settings enhances comprehension and retention.

Skill Development:

Integrating hands-on practice allows students to develop practical skills that are essential in professional settings. This approach not only reinforces theoretical foundations but also equips students with the capabilities needed for real-world challenges.

RAMCO INSTITUTE OF TECHNOLOGY

RAJAPALAYAM

Department of Artificial Intelligence and Data Science

Academic Year: 2022- 2023 (Even Semester)

FEEDBACK

Active Learning Best practices: Theory with Handson Practice

Degree, Semester & Branch: I Sem. B.Tech. Artificial Intelligence and Data Science

Course Code & Title: - GE3151 & Problem Solving and Python Programming

Name of the Faculty member: Dr. M. Kaliappan/Prof & Head-AI & DS

Theme of discussion: Slicing Techniques in List data type

Topics Covered: Unit- 1 & II

Date and Time: 04.12.2023 & 03.10 P.M to 04.00 P.M

Course Outcome: CO5

- **Topic Learning Outcome: TLO1**

Feedback collected in class and also through online

Gform Link : https://forms.gle/u8fKGvU2rVZBhvKw8

Feedback Questions:

1.On a scale of 1 to 10, how would you rate the effectiveness of this active learning activity?

Satisfied **Much Satisfied**

2 Did you find the group discussions valuable?

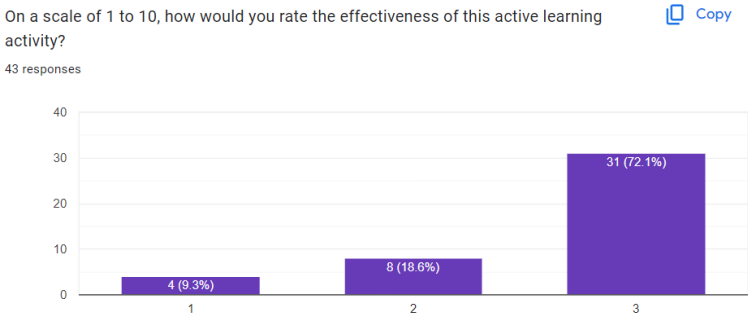
Yes **No**

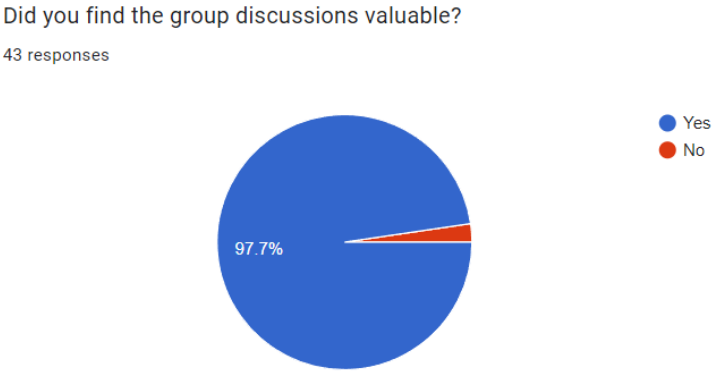
3. Can you share an example of a question or problem that challenged your critical thinking skills

during this activity?	**Yes**	**No**
4. Did you feel motivated to participate actively?	**Yes**	**No**

5. Do you have any suggestions for improving this active learning format or similar activities in the future?

Feedback Analysis:

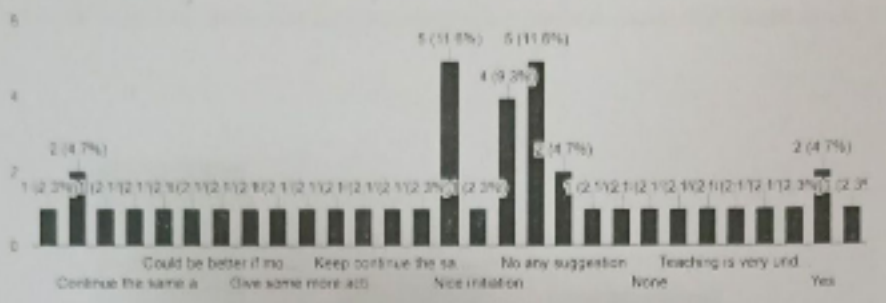




Do you have any suggestions for improving this active learning format or similar activities in the future?

Copy

43 responses



Can you share an example of a question or problem that challenged your critical thinking skills during this activity?

43 responses

23/12/23

FACULTY IN-CHARGE

23/12/23

HOD/AD