



Department of Artificial Intelligence and Data Science

Academic Year 2024 – 2025 (Odd Semester)

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

Course Code & Title: AD3301 & Data Exploration and Visualization

Name of the Faculty member (s): Dr. S. Selva Birunda, AP/AD

Innovative Practice Description

- **Unit / Topic:** Unit – II / Histograms with Legends, colors & Subplots
- **Course Outcome:** CO2
- **Topic Learning Outcome:** TLO15, TL016
- **Activity Chosen:** Peer Review of Visualizations
- **Justification:**

Peer Review of Visualizations activity involves students with similar level of expertise to exchange insights with peers. Students will develop critical thinking and exploration of concepts related to data visualization through active participation in this activity. Students are not able to recognize the gaps in their own knowledge. But when they learn with their peers, they can come up with more creative and collaborative solutions.

- **Time Allotted for the Activity:** 45 minutes
- **Details of the Implementation:**

Step 1: Introduction (5 Minutes)

- Instructor discusses the importance of the effective data visualization and then Outline the criteria for evaluation such as, clarity & design

Step 2: Group Formation (5 minutes)

- Students are divided into small groups (3-4 members each)
- Assign one dataset per group to visualize

Step 3: Create Visualization (15 minutes)

- Each group creates a histogram chart visualization with a legend, color bar, and subplots

Step 4: Peer Review (15 minutes)

- Each group present & explain their visualizations to the whole class



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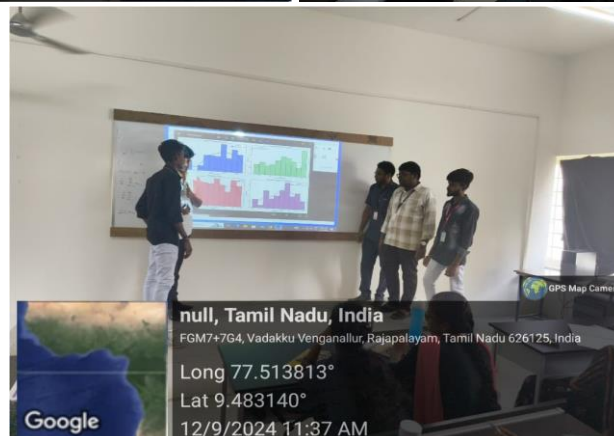
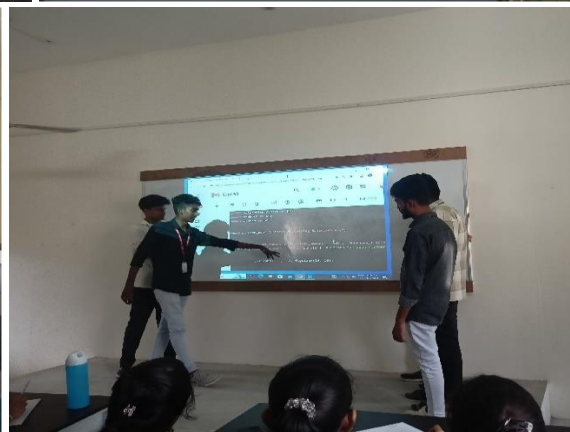
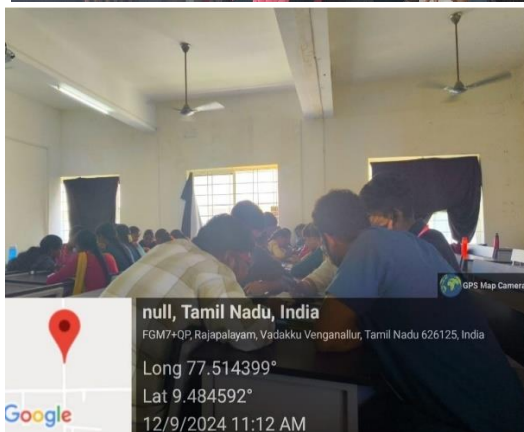
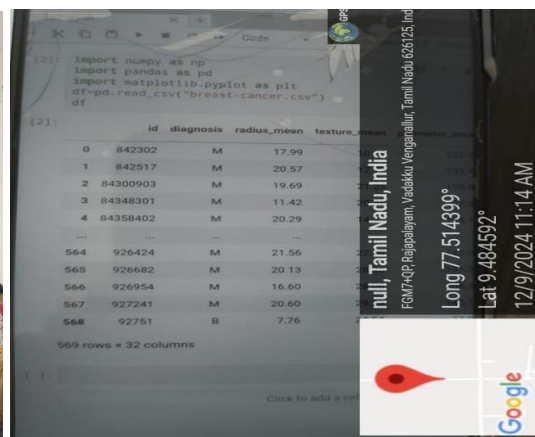
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- After each presentation, time is allotted for questions and addition feedback from peers

Step 5: Revision (5 minutes)

Encourage students to revise their own visualizations based on the feedback received during the activity

- **Images / Screenshot of the practice:**





- **Reflective Critique:**

- ❖ *Feedback of practice from students and other stakeholders:*

- ✓ Students felt this activity provides a chance to collaborate in groups.
- ✓ Students felt reviewing peers' visualizations helped them better understand design principles and data interpretation
- ✓ Students perceived that discussing ideas with peers enriches their learning experience
- ✓ Students feel they are more engaged when actively participating in the peer review process rather than passively receiving instruction

- ❖ *Benefit of the practice:* (E.g.: Outcome attainment would have increased due to innovative practice over conventional practice)

- This activity fosters critical thinking and feedback skills related to data visualizations
- Students can be able to get more clarity in the particular topic through discussion and sharing their visualizations with the peers

- ❖ *Challenges faced in implementation:*

- Students may not have enough time to complete their complete their visualizations
- No thorough reviews or discussions, leading to rushed feedback, depending on the time limits

References:

- ❖ <https://www.wgu.edu/blog/peer-learning2208.html>
- ❖ <https://quickcampus.online/blog/peer-learning-meaning-importance-benefits>



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FEEDBACK

Active Learning Best practices: Peer Review of Visualizations

Degree, Semester & Branch : B. Tech, III Semester & AI / DS
Course Code & Title : AD3301 & Data Exploration and Visualization
Name of the Faculty member (s) : Ms. S. Selva Birunda, AP / AD

Theme of discussion: Peer Review of Visualizations

Date and Time: 12.09.2024 & 10.50 am to 11.35 am

Feedback collected in class and also through online

Feedback Questionnaire:

1. How useful was the peer learning activity of visualization that we did in class today? **Very much Useful** **Not Useful**
2. Do you have a clear understanding of the concept of Histogram with legends, Colors & subplots? **Yes** **No**
3. How effectively did your group communicate and collaborate during the learning activities? **Excellent** **Very Good** **Good** **Satisfactory**



Feedback Analysis:

Attempts: 48 out of 48

-0

How useful was the peer learning activity of visualization that we did in class today?

Discrimination Index (?)

Very much Useful	48 respondents	100 %	<div style="width: 100%;"></div>	✓
Not Useful		0 %	<div style="width: 0%;"></div>	
		0 %	<div style="width: 0%;"></div>	
		0 %	<div style="width: 0%;"></div>	

100% answered correctly

Attempts: 48 out of 48

-0

Do you have a clear understanding of the concept of Histogram with legends, Colours & subplots?

Discrimination Index (?)

Yes	48 respondents	100 %	<div style="width: 100%;"></div>	✓
No		0 %	<div style="width: 0%;"></div>	
		0 %	<div style="width: 0%;"></div>	
		0 %	<div style="width: 0%;"></div>	

100% answered correctly

Attempts: 48 out of 48

+1

How effectively did your group communicate and collaborate during the learning activities?

Discrimination Index (?)

Excellent	39 respondents	81 %	<div style="width: 81%;"></div>	✓
Very Good	7 respondents	15 %	<div style="width: 15%;"></div>	
Good	2 respondents	4 %	<div style="width: 4%;"></div>	
Satisfactory		0 %	<div style="width: 0%;"></div>	

81% answered correctly

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