

Innovative Teaching–Learning Practice (AY 2025–26)

Programme: FYMCA

Course: Design and Analysis of Algorithms (DAA)

Teaching–Learning Technique

Case-Based Algorithm Discovery

Pedagogy: Experiential Learning through Case-Based Learning (CBL) and Collaborative Learning

Objective

To enable students to identify and justify suitable algorithms used in a real-world application.

Activity

Students worked in groups and explored the Zomato application by interacting with features such as restaurant search, sorting, filtering, recommendations, ratings, location-based services, and food delivery tracking. Each group identified and justified the algorithm or algorithmic technique best suited for each feature by relating it to concepts studied in DAA. The activity concluded with group presentations and class discussion.

Learning Outcomes

- Connected DAA concepts with real-world applications.
- Improved analytical thinking and algorithm selection skills.
- Enhanced teamwork and technical communication.
- Developed the ability to justify algorithm selection based on application requirements.

Outcome

The activity enabled students to apply theoretical concepts to a familiar application, improving conceptual understanding, collaborative learning, and the ability to relate algorithmic techniques to practical software systems.