Department of Computer Science and Engineering

Academic Year 2023 – 2024 (Even)

Degree, Semester & Branch: VIII Semester – B.E. CSE

Course Code & Title: CS8080 Information Retrieval Techniques

Name of the Faculty member (s): Dr.S. Babu Renga Rajan

Innovative Practice Description

Unit / Topic: Unit V / Recommendation System **Course Outcome:** CO5

Activity Chosen: Flash Cards **Date of Implementation:** 02.05.2024

Justification

- In this age of short attention spans, flashcards as a teaching tool are ideal for memory retention. Simply put, a flashcard is a piece of paper with a cue or tip on one side and a corresponding response on the other or in another card.
- A recommendation system is a type of machine learning system that provides personalized recommendations to users based on their past behaviors, preferences, and patterns.
- To have a good remembrance and understanding, the flash card activity is chosen for the topic "Recommendation System"

Time Allotted for the Activity: 15 Minutes

Pre-Implementation:

- Two types of Flash cards were prepared. One containing question and other card containing answers as shown in Fig 1.
- Flash card with questions is shuffled with the cards containing answers

Details of the Implementation:

- Questions and answers were prepared in \separate card.
- Question cards were distributed to certain group of students and answer cards were distributed to few other group of student.
- Student who is having the answer read out the card. Other students listed to the question and found out the question for that answer.
- Student who is having the respective question card explained the question and answer for the question to the entire class.

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CO – PO / PSO mapping

CO	PO1	PO2	PO3	PO9	PO10	PSO1
CO5	2	1	1	1	1	1

(1 – Low 2 – Moderate 3 – High)

PO / PSO mapped

Innovative practice	PO1	PO2	PO3	PO9	PO10	PSO1
Justification for correlation	Students will be able to understand the concept of Recommendation System	Students will be able to choose the appropriate Recommendation System types.	Students will be able to provide solution for the problem by applying different Recommendation system types	As the student involved in the activity as a team of two, the team work skill improved	Students communication skill will be improved as they are discussing the answers with peers	The problem solving skill earned through this activity helps the students in solving various problems

Image of the Flash card

Questions	Answers
What is Recommendation System?	A recommendation system is a type of machine learning system that provides personalized recommendations to users based on their past behaviors, preferences, and patterns.
What is Collaborative Filtering?	Recommendation systems analyze user behavior and preferences to identify patterns and similarities among users, suggesting items liked by similar users.
Define Content-Based Filtering:	These systems examine the features and characteristics of items to match them with user preferences based on past interactions.
What are Hybrid Approaches	Many recommendation systems combine collaborative and content-based methods to provide more accurate and diverse recommendations.
What is Implicit and Explicit Feedback?	These systems consider both explicit feedback (ratings, reviews) and implicit feedback (clicks, views) to infer user preferences.
What is Personalization?	Recommendation systems aim to provide personalized suggestions that reflect each user's unique tastes and preferences.

Fig 1: Flash card Sample

Reflective Critique

- ***Feedback of practice from students and other stakeholders***
  - Students said that the flash card activity is very joyful to recollect the Types of Recommendation System.
  - They asked to conduct more of the similar activity during class which help them to listen the class without getting bored.
- ***Benefit of the practice***
  - Students understanding are improved for the concepts of different types of Recommendation System.
  - Students' memorization and remembrance is improved
- ***Challenges faced in implementation332***
  - Few students found it difficult to find the corresponding flash card which containing answer.

References:

- https://en.wikipedia.org/wiki/Recommender_system
- https://en.wikipedia.org/wiki/Flashcard
- https://marutitech.medium.com/what-are-the-types-of-recommendation-systems-3487cbafa7c9
- https://theappsolutions.com/blog/development/recommender-systems-guide/

Signature of Faculty Member **HOD**