

The background features three vertical bars on the left: a wide pink one, a medium blue one, and a narrow light beige one. In the top right and bottom left corners, there are decorative patterns of small pink dots arranged in a grid-like fashion.

RECOMMENDER SYSTEM

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INTRODUCTION

A recommendation system (or recommender system) is a type of information filtering tool that predicts and suggests items or content that a user might be interested in. These systems are commonly used by online platforms to enhance user experience by providing personalized recommendations.

TYPES OF RECOMMENDER SYSTEMS:

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- **Content-Based Filtering**
- **Collaborative Filtering**
- **Hybrid Systems(combine collaborative and content-based)**

CONTENT-BASED FILTERING:

- This approach recommends items similar to those the user has liked in the past, based on item attributes.
- **Advantages:** Doesn't rely on other users, which helps with the cold start problem.
- **Challenges:** It's hard to make diverse recommendations, as users are typically shown content similar to what they've already consumed.

COLLABORATIVE FILTERING:

- This approach relies on data from multiple users to make recommendations. It identifies similar users and suggests items based on user preferences within the entire user base.
- **Advantages:** It can introduce a wider variety of recommendations and works even if the items don't have detailed feature information.
- **Challenges:** It requires a large amount of user data and can struggle with new users or items (known as the “cold start” problem).

CASE STUDY:

Recommendation System in **phonepe**

USING CONTENT-BASED FILTERING:

- Quick Access to Frequent Payments.
- Bill payments reminders.
- Personalized suggestions.
- Recharge suggestions based on past activity

USING COLLABORATIVE FILTERING:

- **User Similarity:** Find users with similar transaction patterns or preferences by comparing profiles.
- **Group users into clusters of similar interests.** And gives the recommendations based on.

CONCLUSION

- **By combining these two methods, PhonePe can:**
- **Content-based filtering** ensures users see services they're already interested in, like recurring bill payments or favorite shopping categories.
- **Collaborative filtering** adds variety by suggesting services that other users with similar preferences are exploring, helping users discover new but likely relevant options.

The background features three vertical stripes on the left: a wide pink stripe, a medium blue stripe, and a narrow beige stripe. The right side of the image is a light beige background with two rectangular areas of small, light pink dots in the top right and bottom right corners.

THANK YOU