

USER ENGAGEMENT ANALYSIS ON AN ONLINE LEARNING PLATFORM

Problem Statement

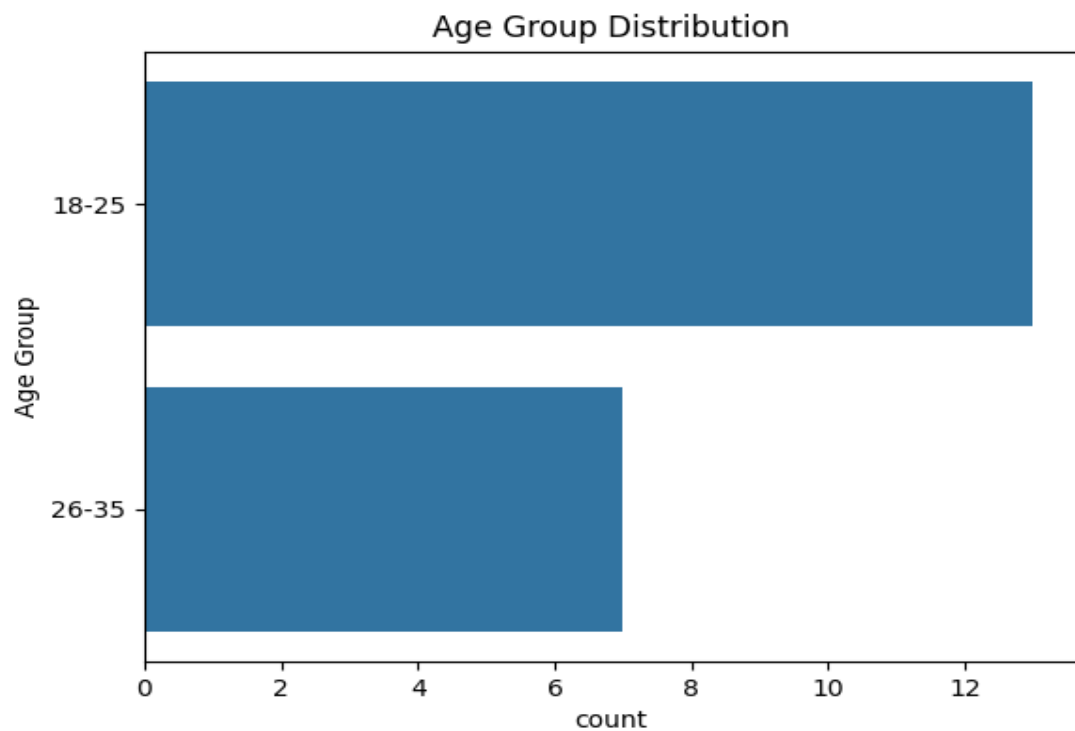
An online learning platform wants to improve student engagement and course completion rates. Your task is to analyse user behaviour and provide actionable recommendations to boost engagement.

Objective

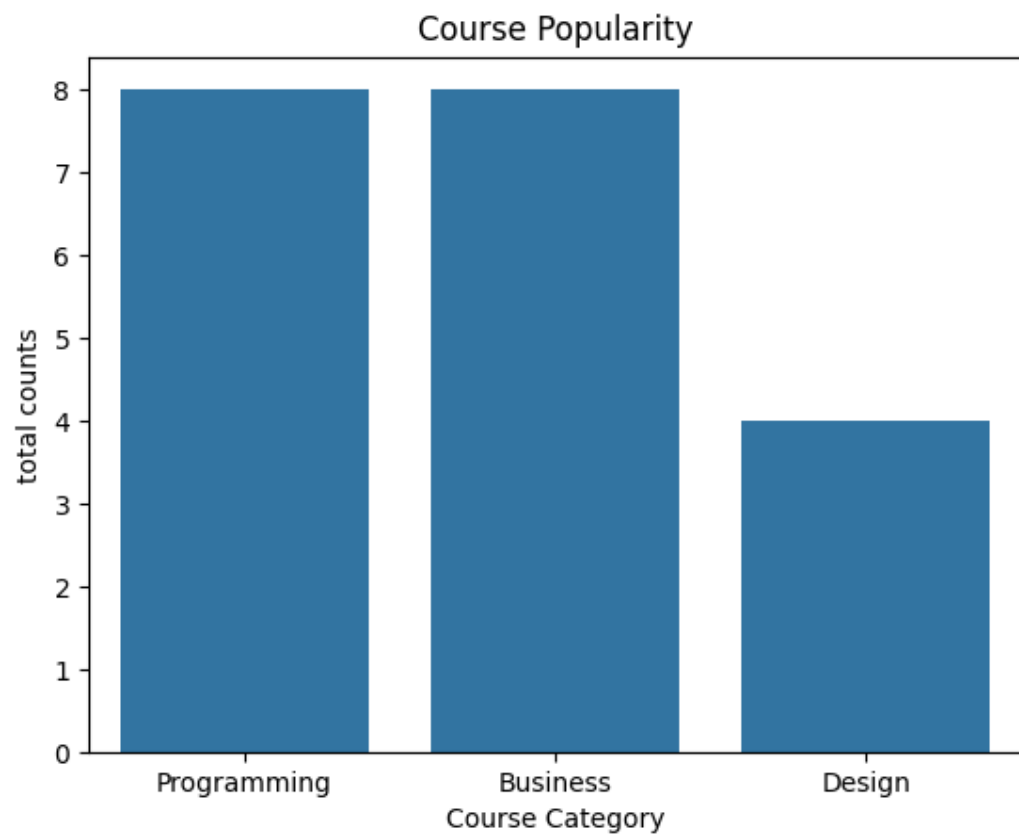
1. Understand user engagement patterns on the platform.
2. Identify factors contributing to drop-offs in course completion.
3. Provide insights and recommendations to improve student retention and engagement.

Exploratory Data Analysis (EDA)

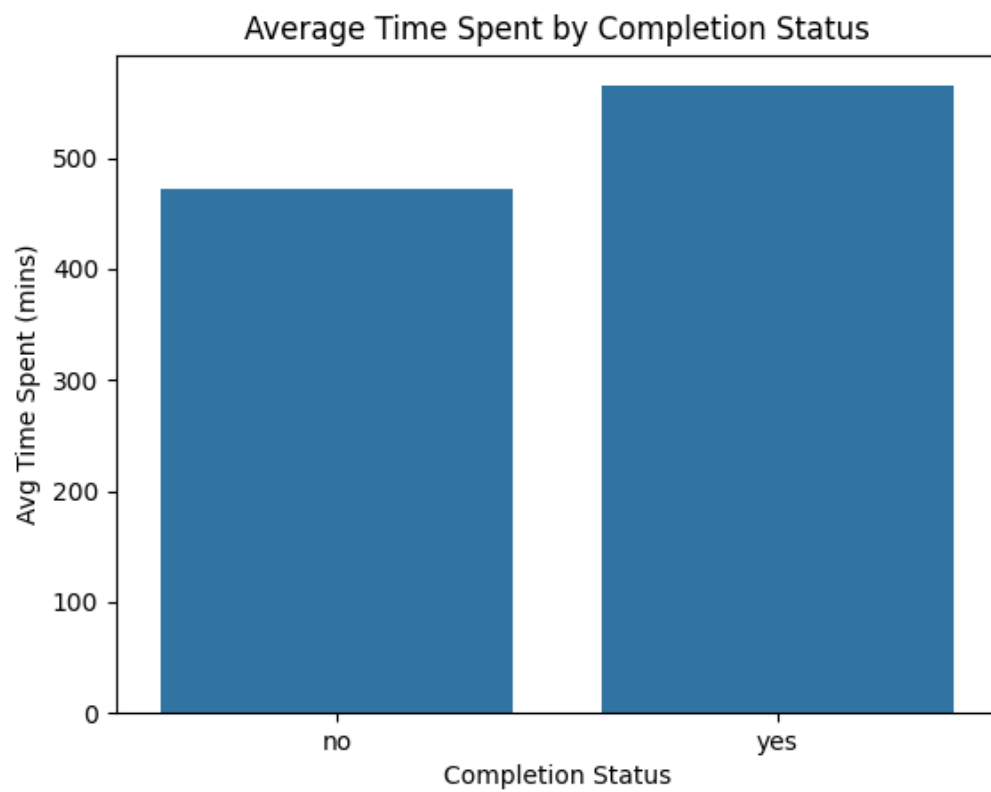
1. Age group distribution



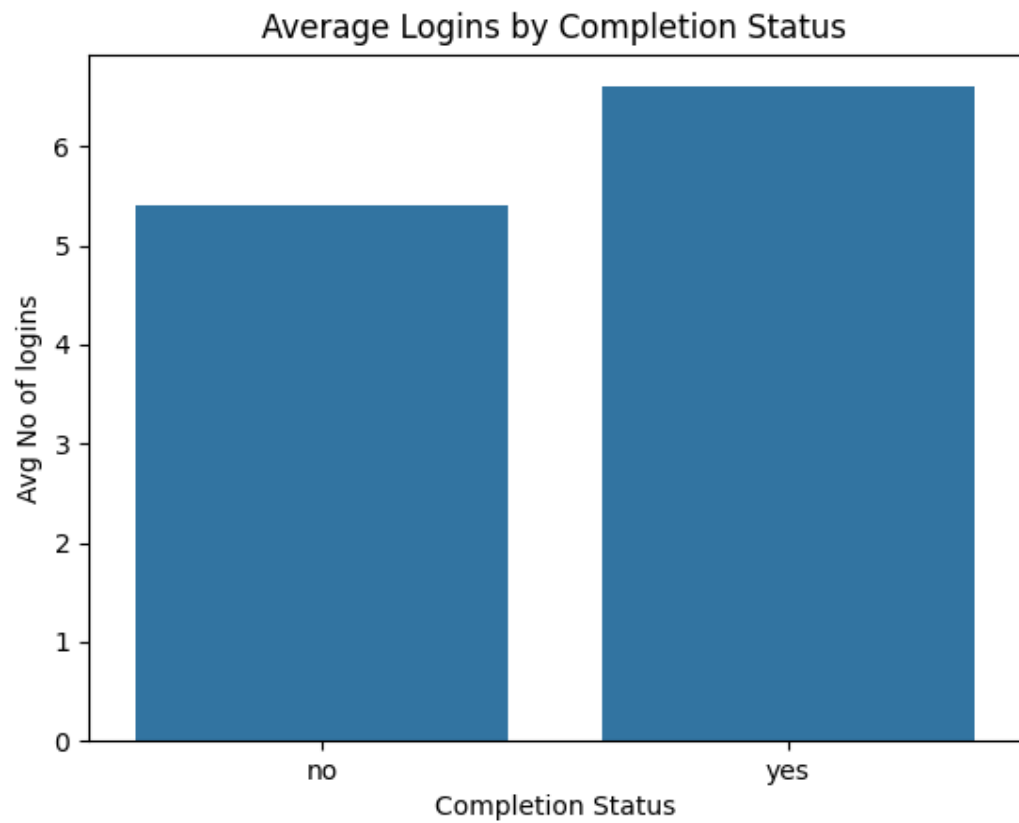
2. Most and least popular course categories



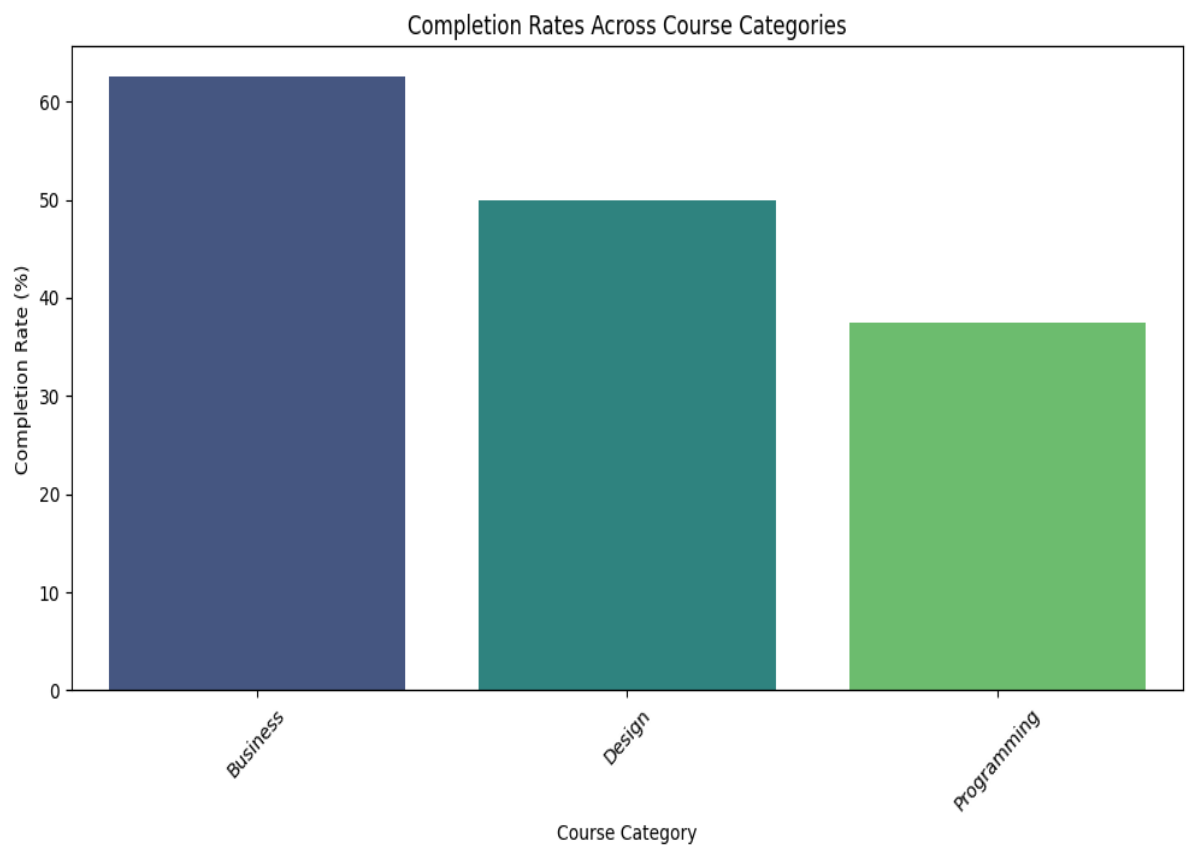
3. Average time spent vs completion



4. Login frequency trends

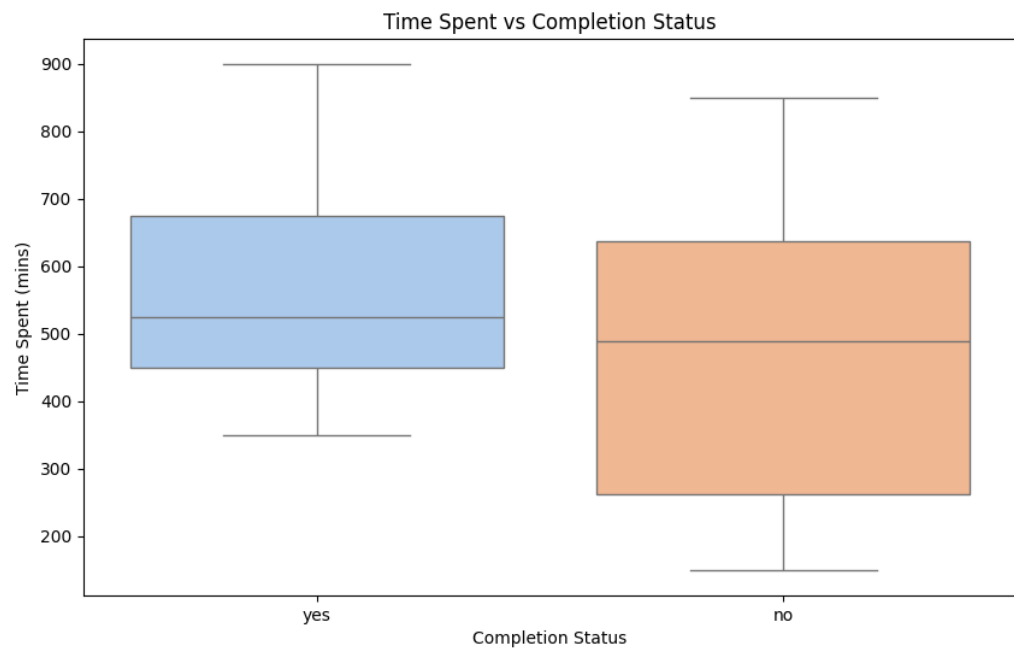


5. Completion Rates Across Course Categories

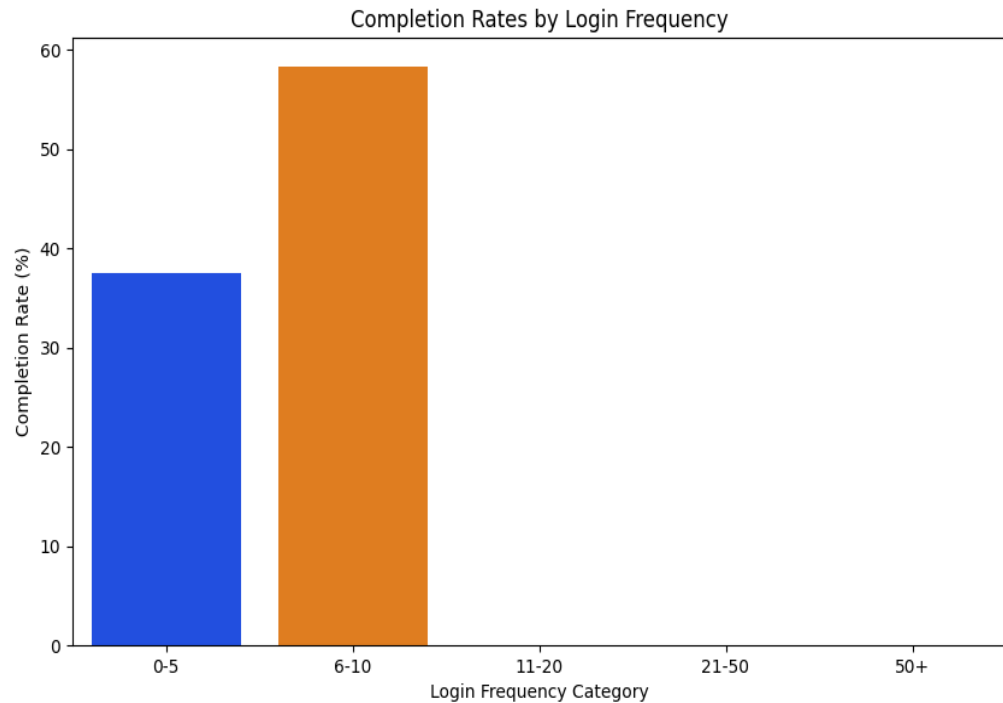


Behaviour Analysis

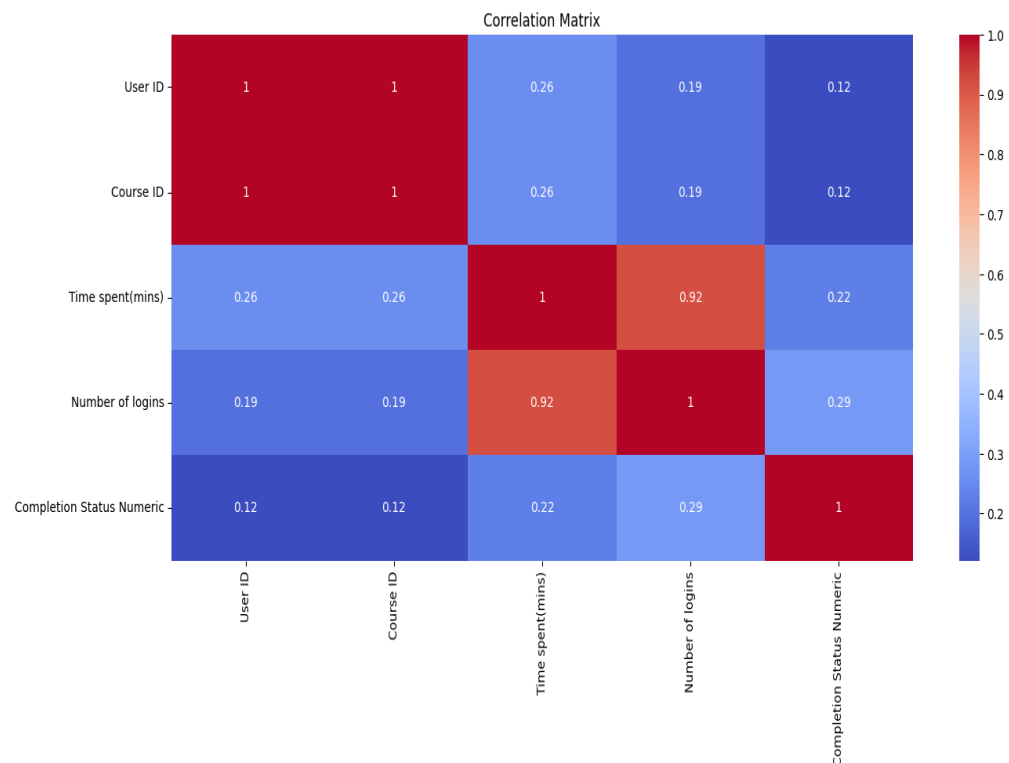
1. Time spent and completion status



2. Analysing logins and engagement



3. Correlation Matrix



Completion Status Numeric has strong positive correlations with:

- Time spent (mins): Suggesting that more time spent on the platform increases course completion.
- Number of logins: Indicating frequent logins are associated with higher completion rates.

Time spent (mins) and Number of logins are positively correlated, reflecting that active users engage more consistently.

Recommendations

1. Encourage Active Engagement: Introduce rewards (e.g., badges or coupons) for reaching milestones like 500 or 700 minutes of platform usage.
2. Increase Time Spent on the Platform by Interactive Content: Use quizzes, polls, or mini-games to make learning sessions engaging and extend time spent.
3. Support Low-Engagement Users by: Targeted Reminders: Use email or in-app notifications for users spending less than 500 mins or logging in fewer than 10 times.
4. Monitor and Optimize by Weekly Activity Reports: Provide users with weekly summaries of their progress compared to completion thresholds (e.g., "You're 70% to the 500-min mark!").
5. Personalized Learning Experience: Recommend courses based on previous activity, time spent, and categories of interest.

6. Engagement-Based Adaptations: For users showing signs of disengagement (low logins or time spent), suggest beginner-friendly or shorter courses.