# ☑ Project Overview

This project focuses on analyzing student activity and course engagement patterns on an online learning platform. It includes insights derived from datasets on students, course activity, and feedback. The objective is to help Zylentrix improve student engagement, course performance, and satisfaction.

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# 🖥 Key Insights

## 1. Delhi and Kolkata Show Highest Engagement

- Students from **Delhi (103.3 mins)** and **Kolkata (104.4 mins)** spend the most time on the platform.

- Despite having fewer enrollments than cities like Bangalore, their engagement levels are notably higher.

## 2. Age Group 18–25 Is the Most Active

- The majority of learners are in the **18–25 age group (53 students)**.

- This group maintains a healthy average engagement (99.7 mins), highlighting its potential for targeted campaigns.

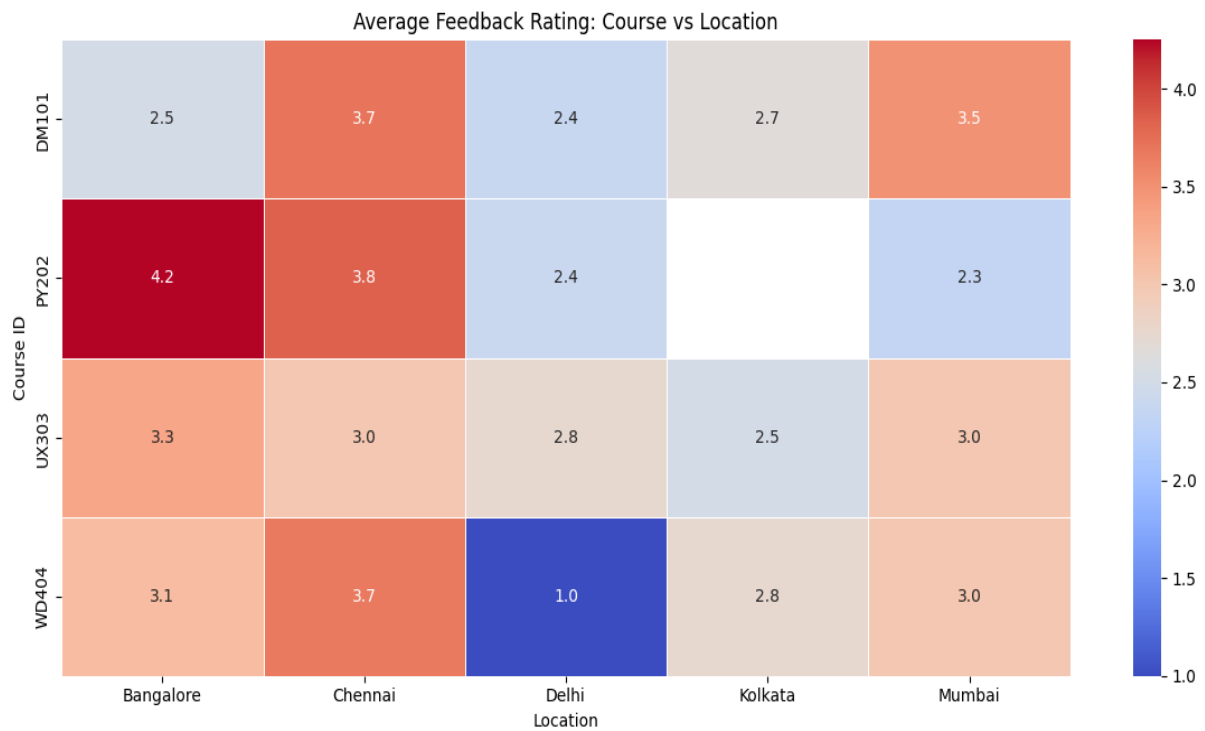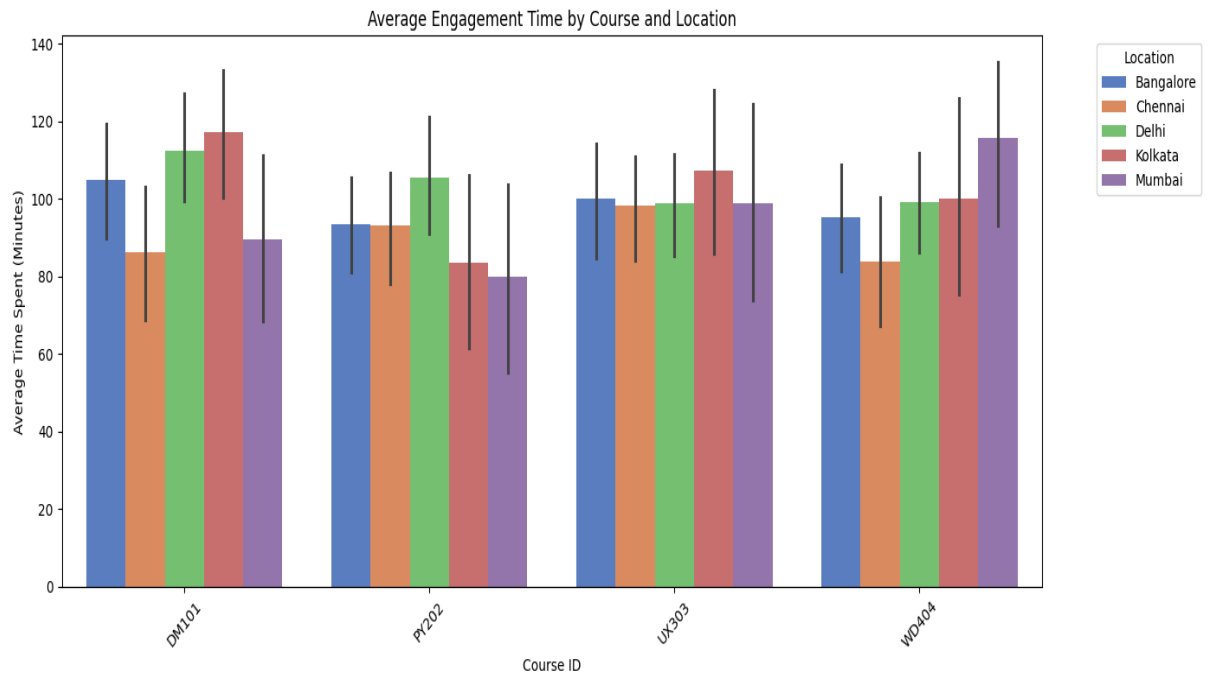## 3. Course PY202 Has High Enrolment but Low Completion

- **PY202** attracts the **highest number of students (88)** but has a **low average completion rate (56.1%)**.

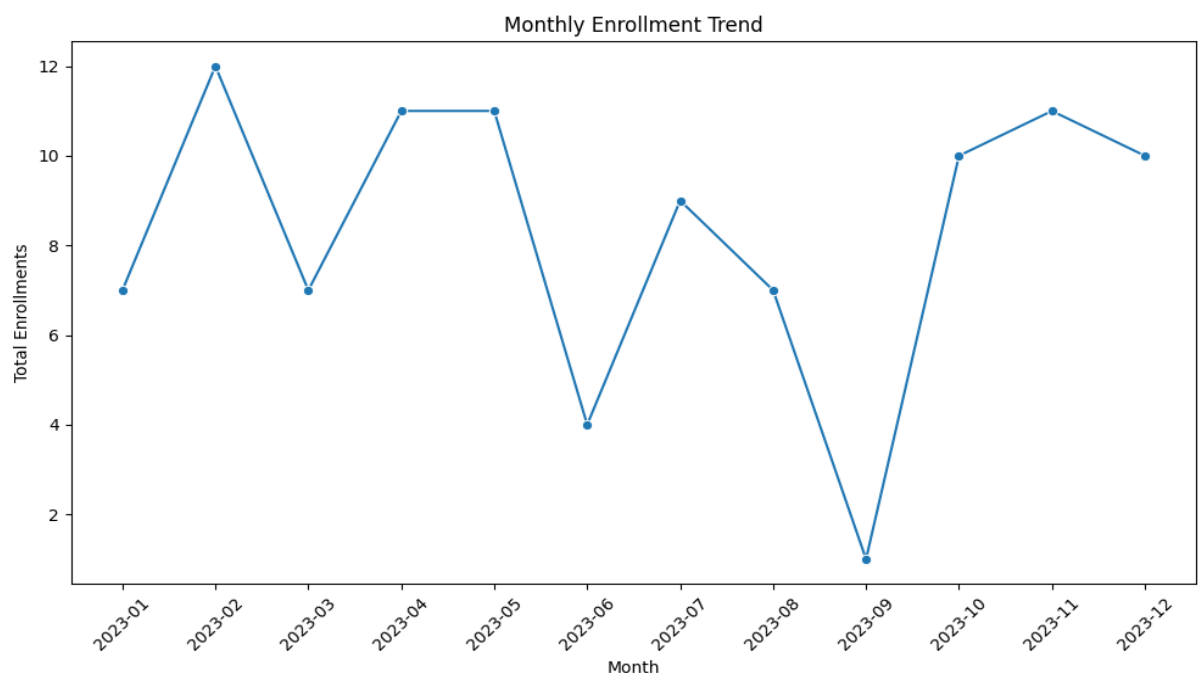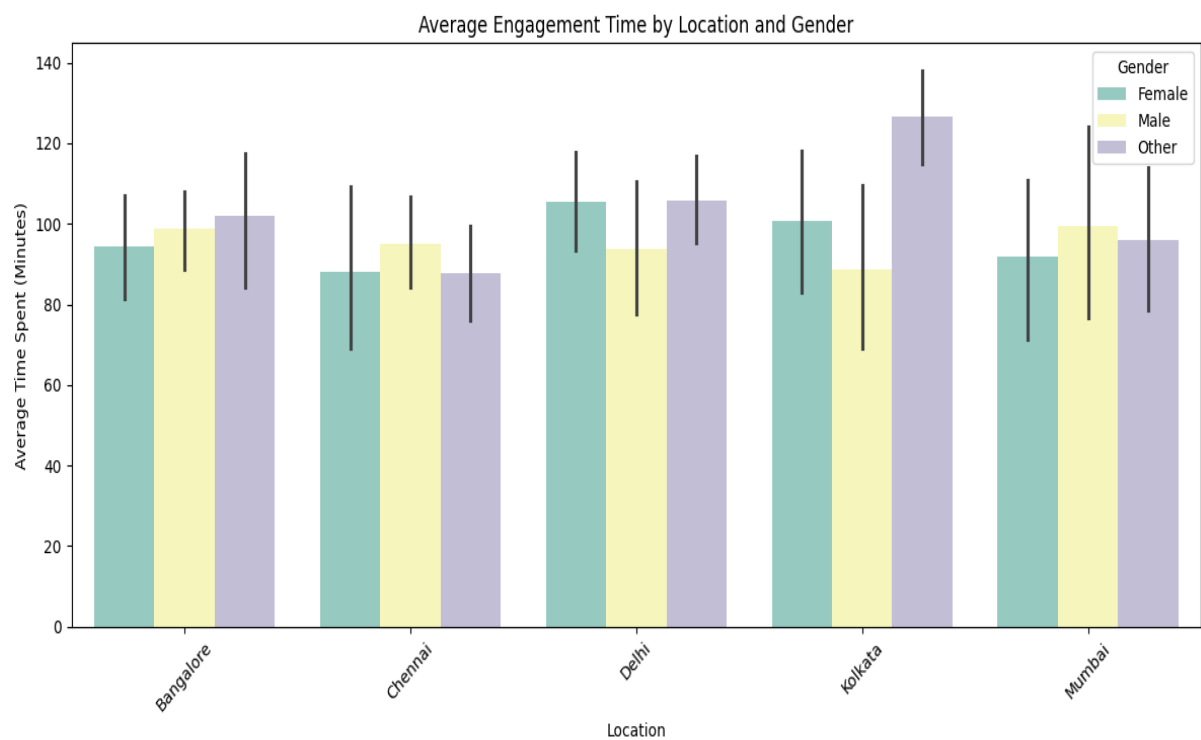- This suggests the need for intervention through redesign or added support.

## 4. Lower Enrollments in Mumbai and Kolkata

- Mumbai and Kolkata recorded the lowest number of enrollments among all cities, with 11 and 13 students respectively.

- This indicates potential areas for targeted marketing and outreach to boost enrollments numbers in these cities.

## 5. Weak Correlation Between Ratings and Completion

- A **very weak negative correlation (-0.05)** exists between course ratings and completion rates.

- High ratings don't always lead to high completion, indicating other engagement factors at play.

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Average Engagement Time by Course and Location



Average Feedback Rating: Course vs Location

Average Engagement Time by Location and Gender



Monthly Enrollment Trend

**🗓️ Recommendations to Improve Engagement & Course Performance**

**1. Redesign and Support Low-Performing Courses**

- Prioritize review of courses like **PY202** with high dropout rates.

- Add micro-quizzes, gamification, and peer forums to increase engagement and retention.

**2. Use Personalized Progress Nudges**

- Implement smart reminders such as:

*"You've completed 40% of your course! Great job – keep going!"*

- Send automated messages at 25%, 50%, 75%, and 100% milestones to encourage continuation.

**3. Targeted Engagement by Location & Age Group**

- Focus campaigns and support on high-performing cities like **Delhi/Kolkata**.

- Organize webinars and local meetups in **Mumbai /Kolkata** to build awareness, engage potential learners, and drive new enrollments.

- Engage the **18–25 age group** with success stories, weekly study goals, and gamified learning experiences.

**4. Content Filtration for Personalized Learning**

- Introduce filters to surface relevant content based on learner interests, performance, and progress.

- Recommend follow-up lessons or related topics based on completed modules to maintain curiosity and momentum.

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## ✴️ Conclusion

The analysis highlights key engagement patterns that present significant opportunities for Zylentrix to enhance its learning ecosystem.
By implementing personalized learning interventions, refining course design based on learner feedback, and strategically targeting high-potential demographics, Zylentrix can strengthen student retention, increase overall satisfaction, and elevate its educational impact.