

Zylentrix Data Analysis Report

1. Introduction

This report presents an analysis of user engagement and feedback on Zylentrix's online learning platform. The data includes student demographics, course activity, and course feedback. The objective is to uncover patterns, insights, and actionable recommendations to improve user experience and learning outcomes.

2. Key Findings from Exploratory Data Analysis

- Overall Average Course Completion Rate: 54.78%
- Course with Highest Average Engagement Time: DM101 (102.43 mins)
- Course with Lowest Average Engagement Time: PY202 (93.90 mins)
- Engagement by Age Group:
 - 15-25: 100.76 mins
 - 26-35: 95.36 mins
 - 36-50: No data available
- Average Feedback Ratings by Course:
 - DM101: 2.90
 - PY202: 3.28
 - UX303: 2.92
 - WD404: 2.79
- Correlation between Completion % and Feedback Rating: -0.05

3. Top 3 Student Segments (High Engagement & Satisfaction)

S075 → Avg Time: 154.00 mins, Completion: 65.75%, Rating: 1.00

S042 → Avg Time: 147.67 mins, Completion: 52.93%, Rating: 1.00

S051 → Avg Time: 147.60 mins, Completion: 44.12%, Rating: 2.00

4. Recommendations

1. Introduce course pacing improvements, especially for high-engagement, low-rated courses like PY202.
2. Develop targeted support or nudges for students in the 26–35 age group, which shows lower engagement.
3. Explore qualitative feedback from top engaged users with low ratings to refine course content.

5. Visualizations

Generated visualizations should be included in the final presentation or appendix. You can create them using matplotlib/seaborn as per the included code.