

Data Visualization Associate Internship
Group 2D
Week-2 Submission
Team coordinator: Madhesh

Introduction

The creation of this dashboard for Excelerate's leadership team is driven by the need to gain comprehensive insights into user activity and engagement on our platform. By addressing key questions through the dashboard, we aim to gain a holistic view that aids strategic decision-making.

Objective

Using Data preprocessing techniques and dashboard creation, we aim to give valuable insights and cover some key points below:

1. Platform Activity
2. Global Reach
3. US city Insights
4. Opportunity Popularity
5. Completion trends
6. Demographics analysis
7. Skill Development
8. Scholarship Impact

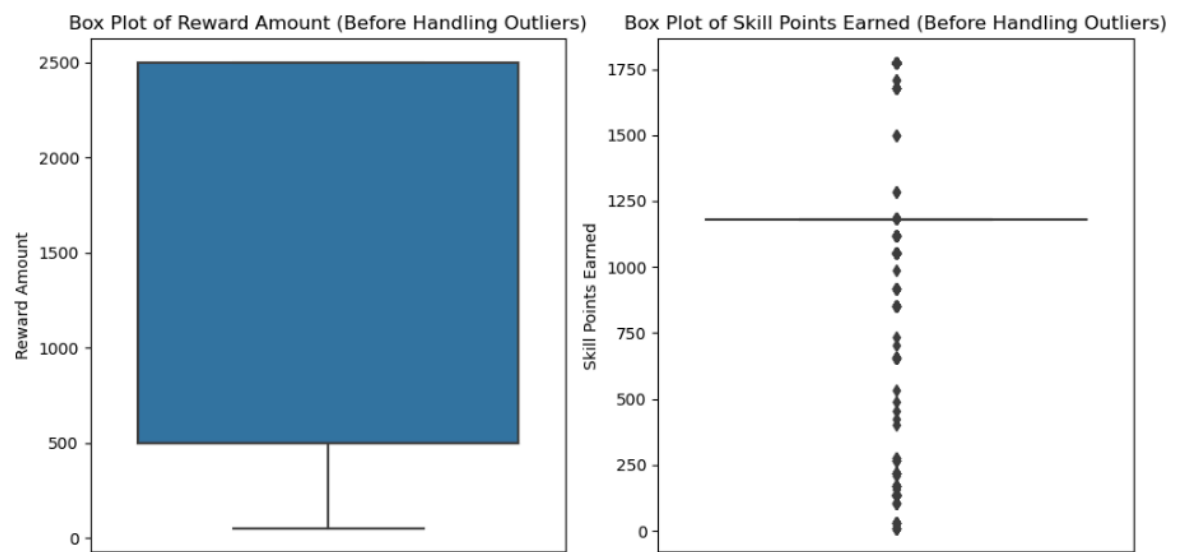
Data preprocessing overview

During analysis, we aimed to have accurate data so certain activities were carried for preprocessing. Activities as

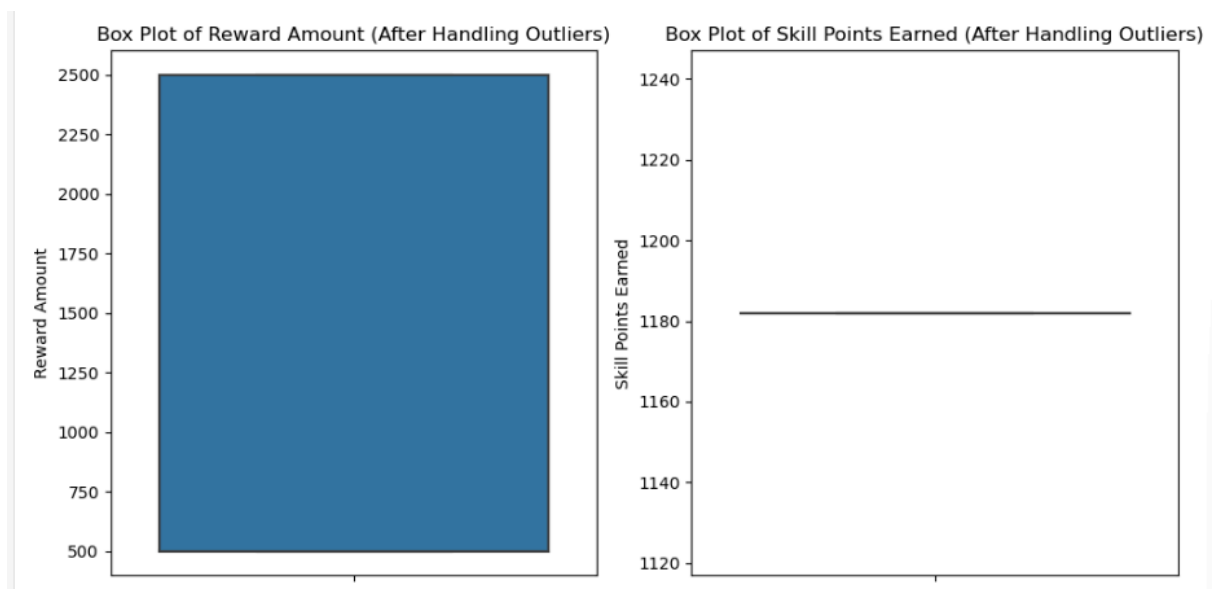
- Handling outliers

Outlier handling for Regards column , Skills points earned

Before :



After handling

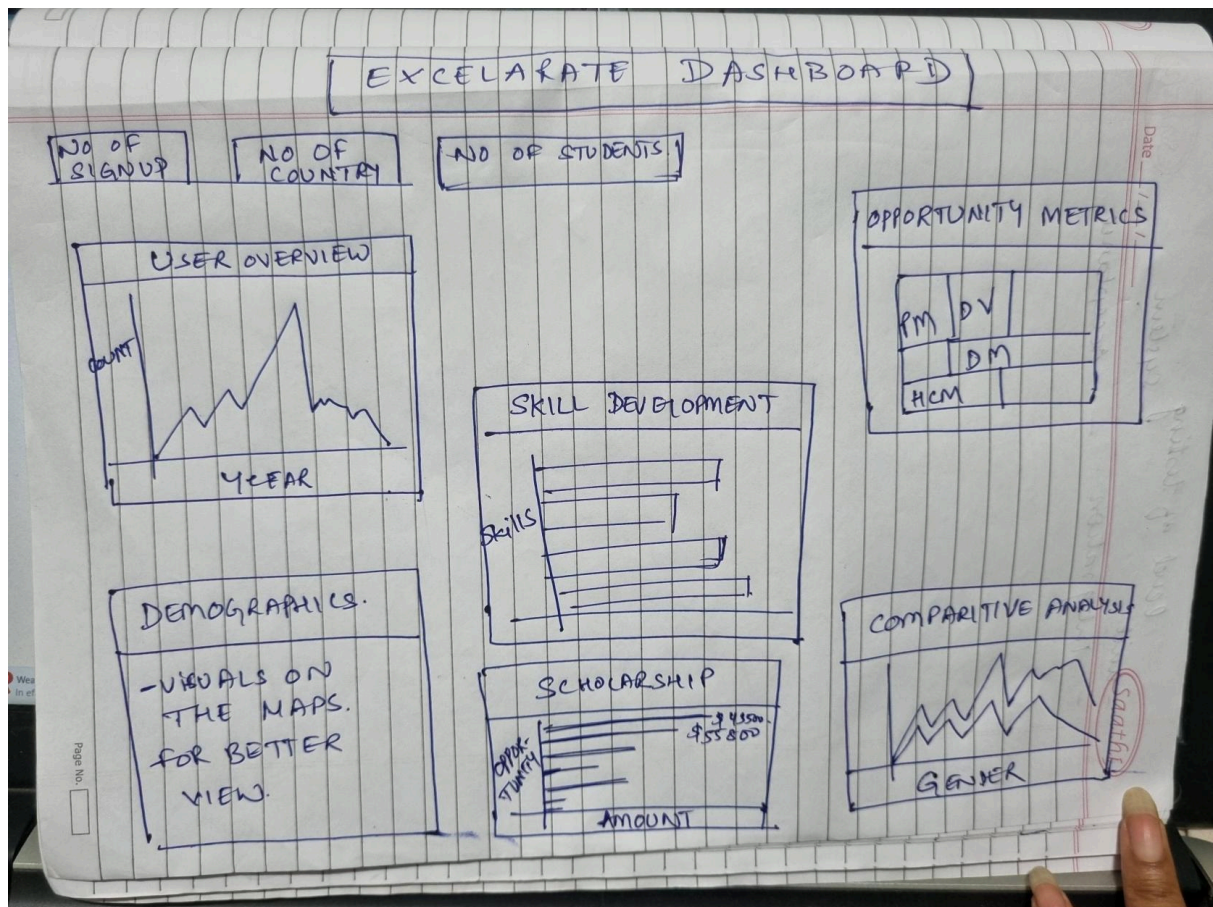


- Normalise features & Addressing data quality issue:

The data quality by handling missing values, ensuring consistency in categorical variables, converting dates to the correct format, and removing duplicates and rows with missing data. These steps are crucial for preparing the data for further analysis or modeling.

- Feature engineering & Data transformation
- Documentation

Dashboard



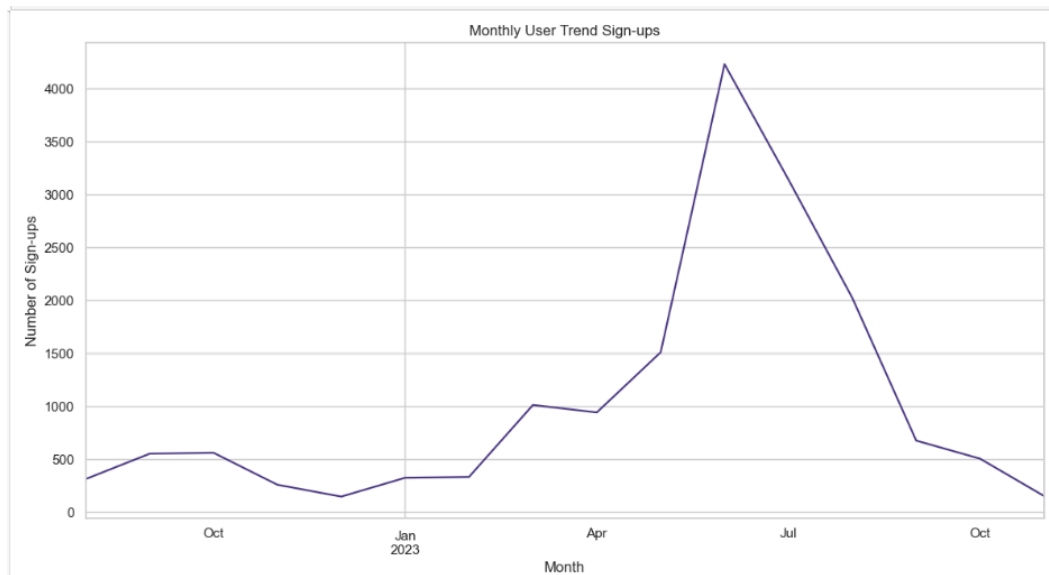
Wireframe link:

https://drive.google.com/file/d/1FBtS8xfMK0kePHX7x8qCji35T_HdLS-E/view?usp=sharing

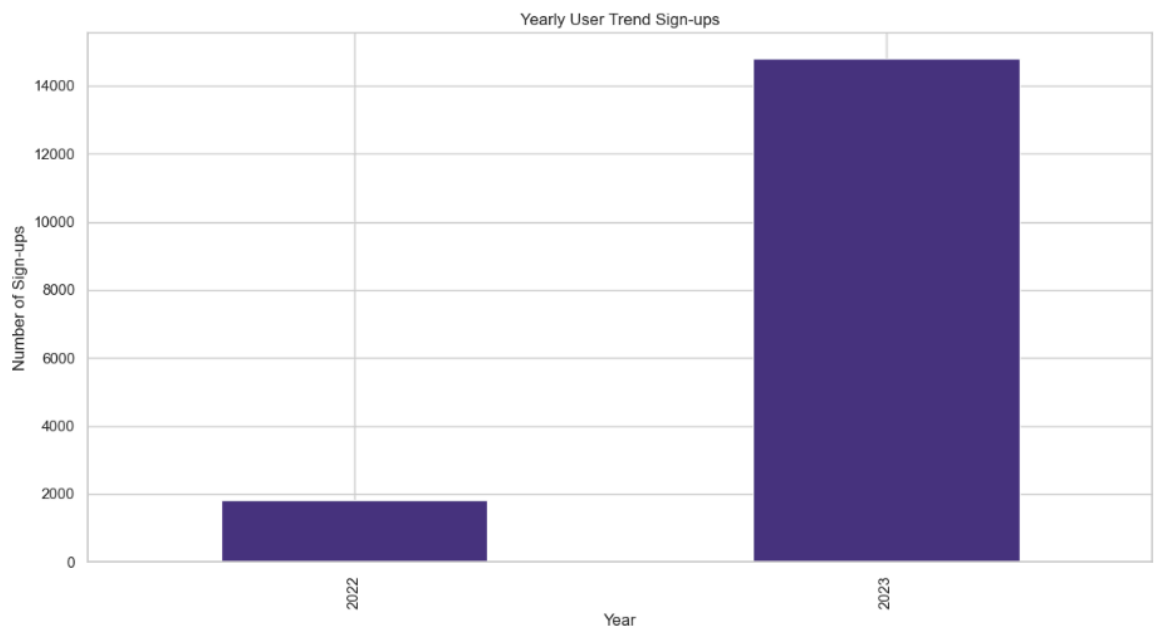
Visuals brief

1. User activity overview

MonthlyTrend

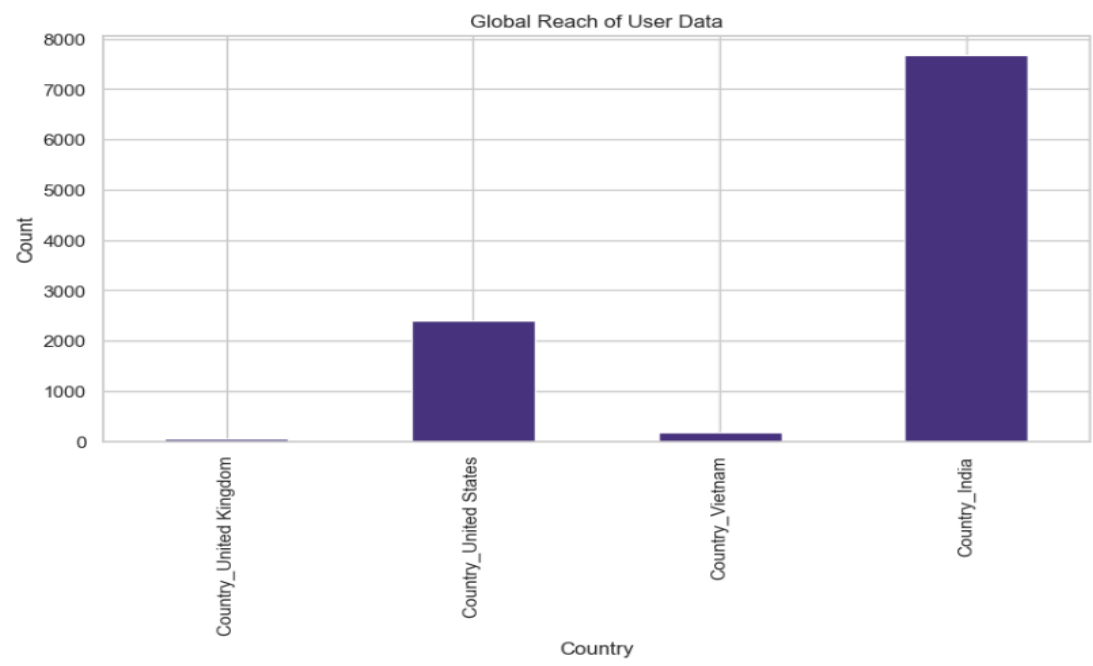


Yearly trend



Explanation: As per the monthly trend, the highest number of sign-ups occurs during the peak month of July and then decreases by October. However, on a yearly basis, 2023 shows a significant surge in new account signups.

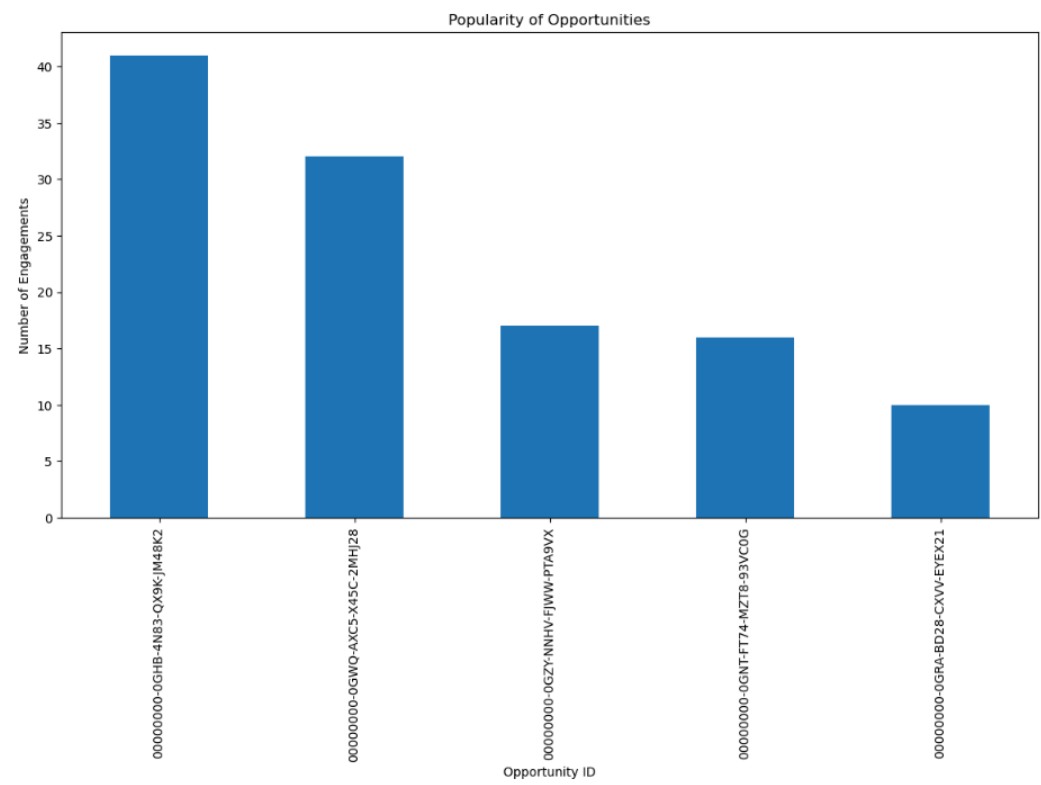
2. Demographic insights



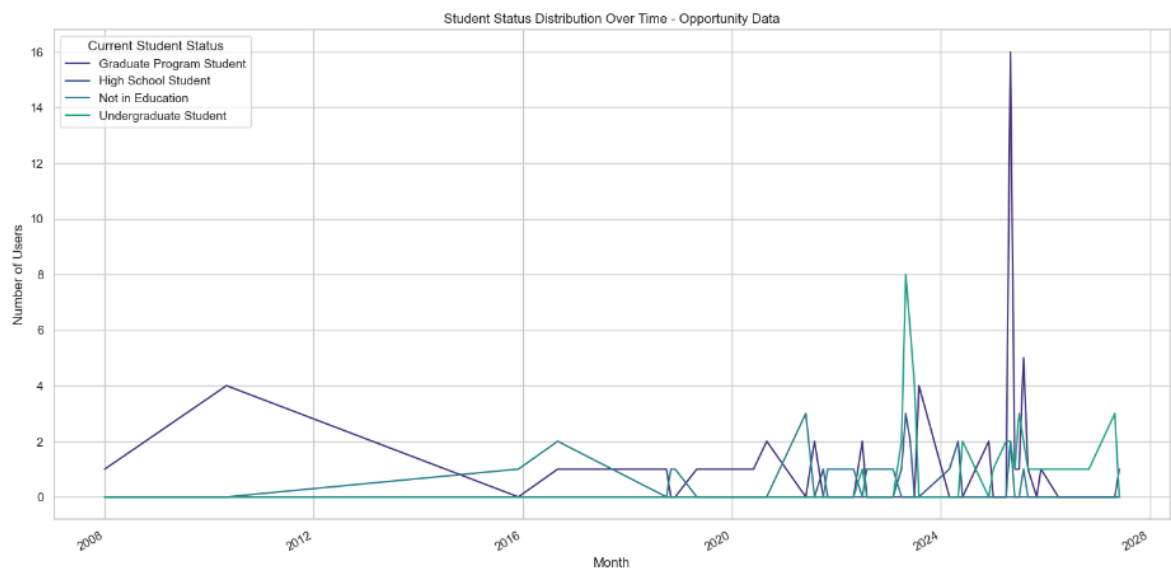
Explanation: India leads in maximum registration over platform followed with US or any other states.

3. Opportunity metrics

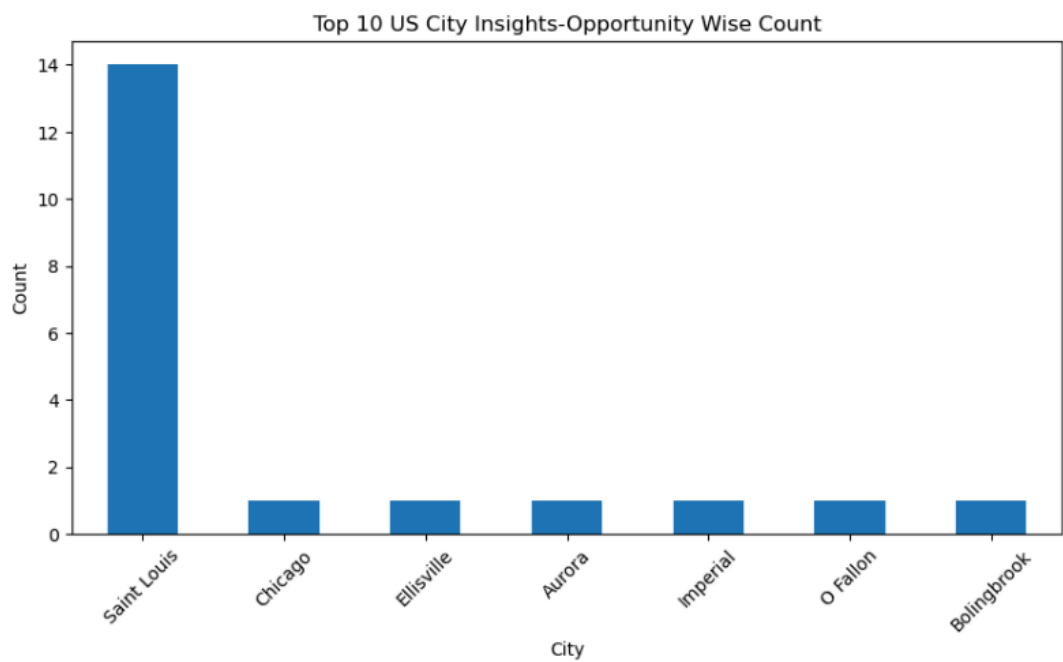
Popularity of the opportunity



Student status distribution over opportunity



Opportunity wise US city trends

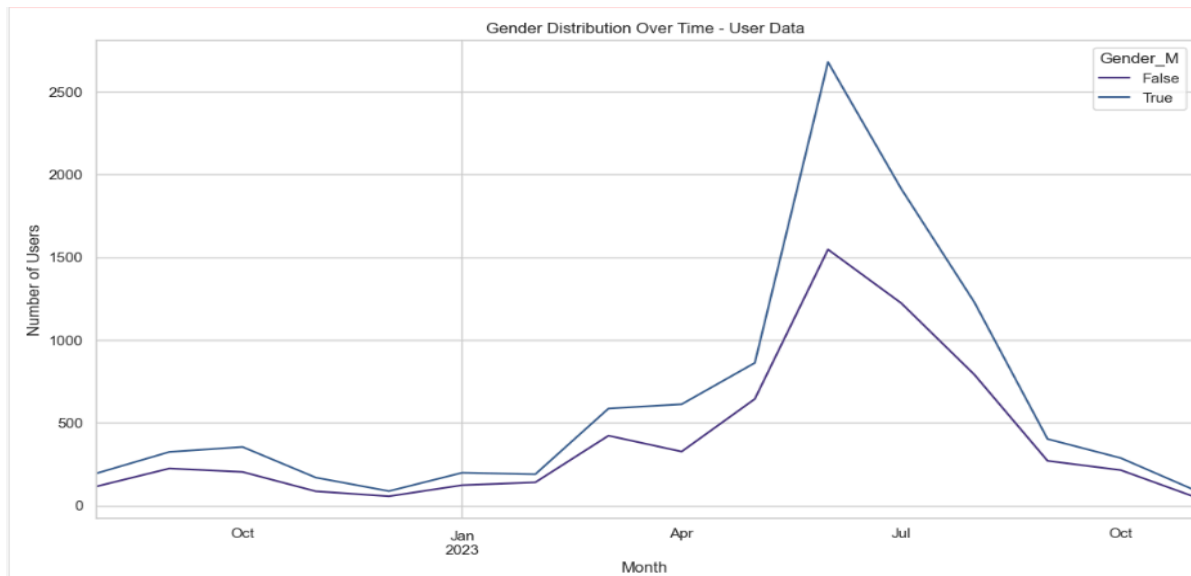


Explanation: Saint Louis bets among the top Cities for maximum opportunity grasper than any other city in the US.

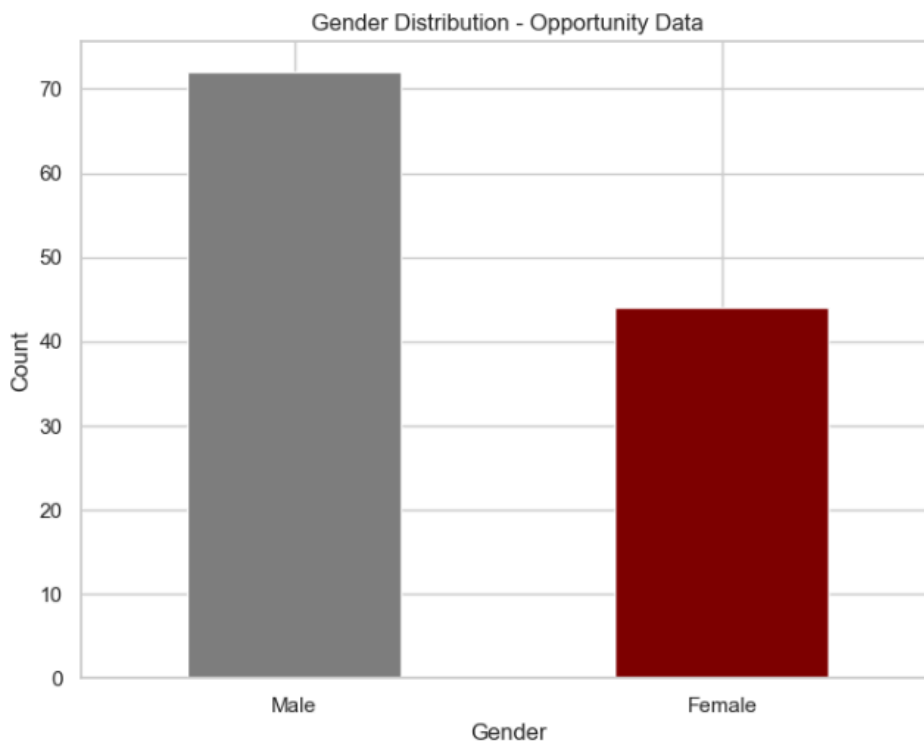
4. Comparative analysis

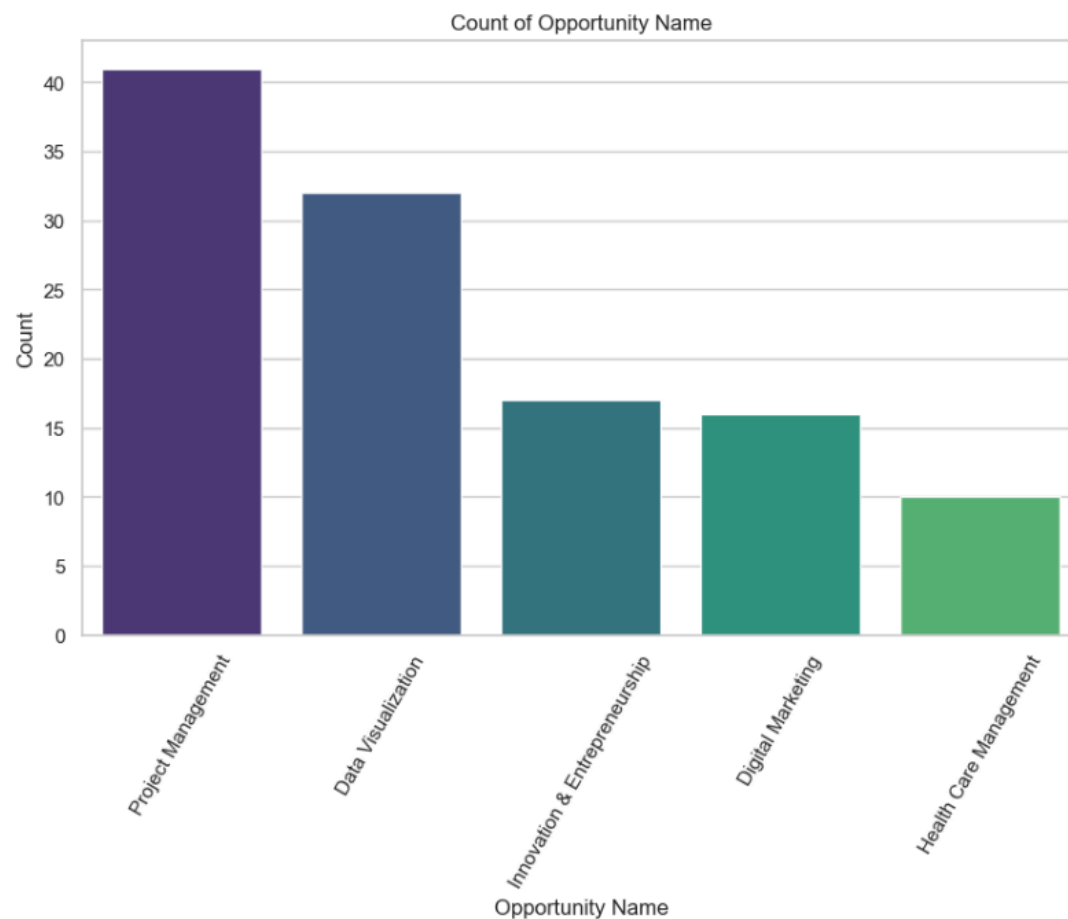
Gender

distribution

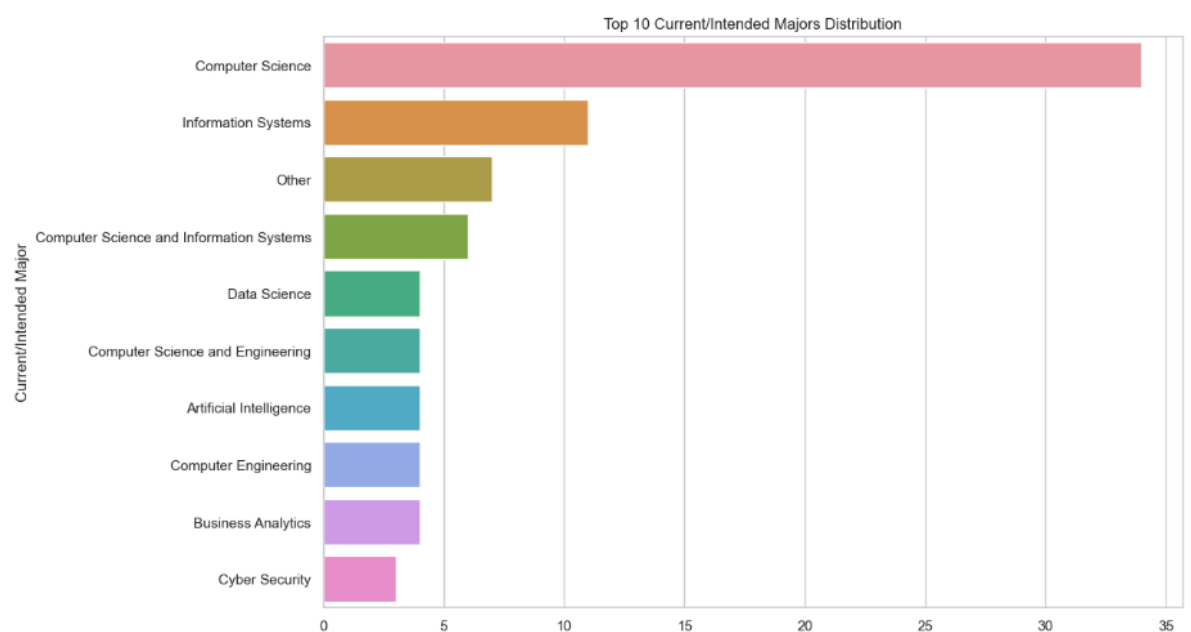


Explanation: During the period from June to August, males have been the dominant gender in terms of both opportunities and the volume of user data.

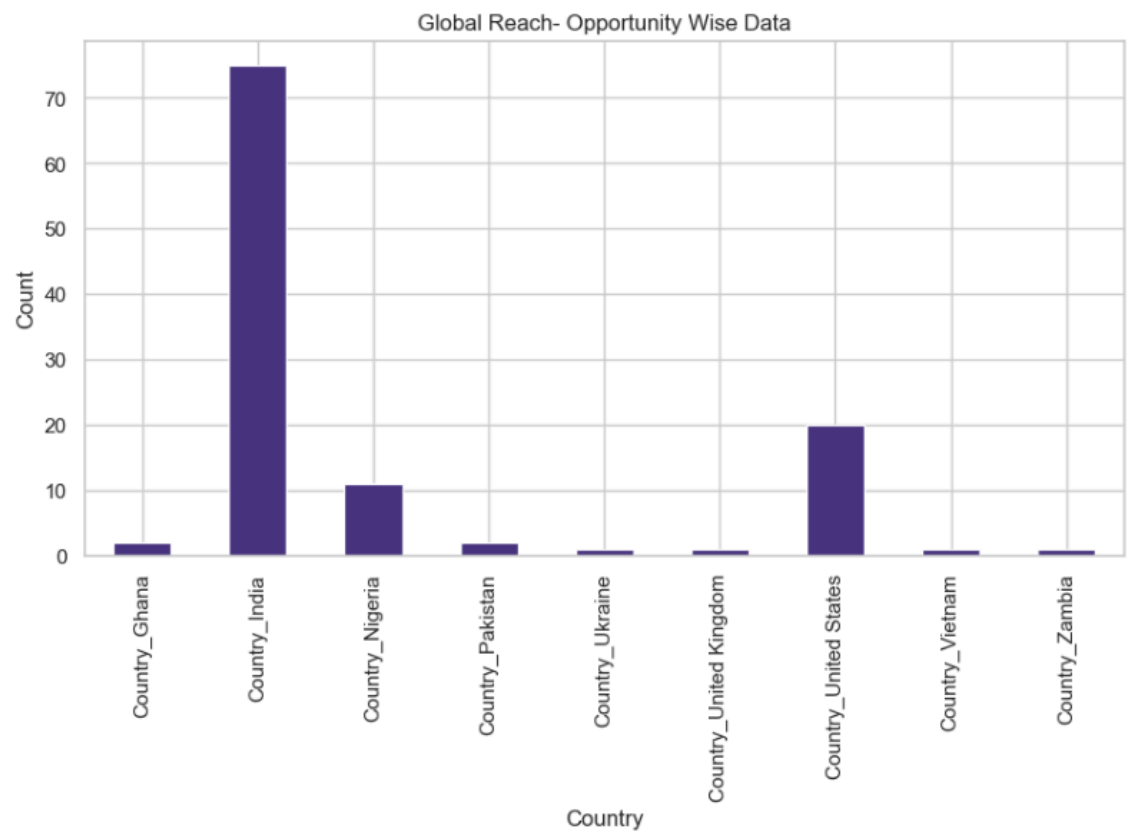




Explanation: The project management and data visualisation has been into a race followed with Innovation & entrepreneurship , digital marketing and health care management.

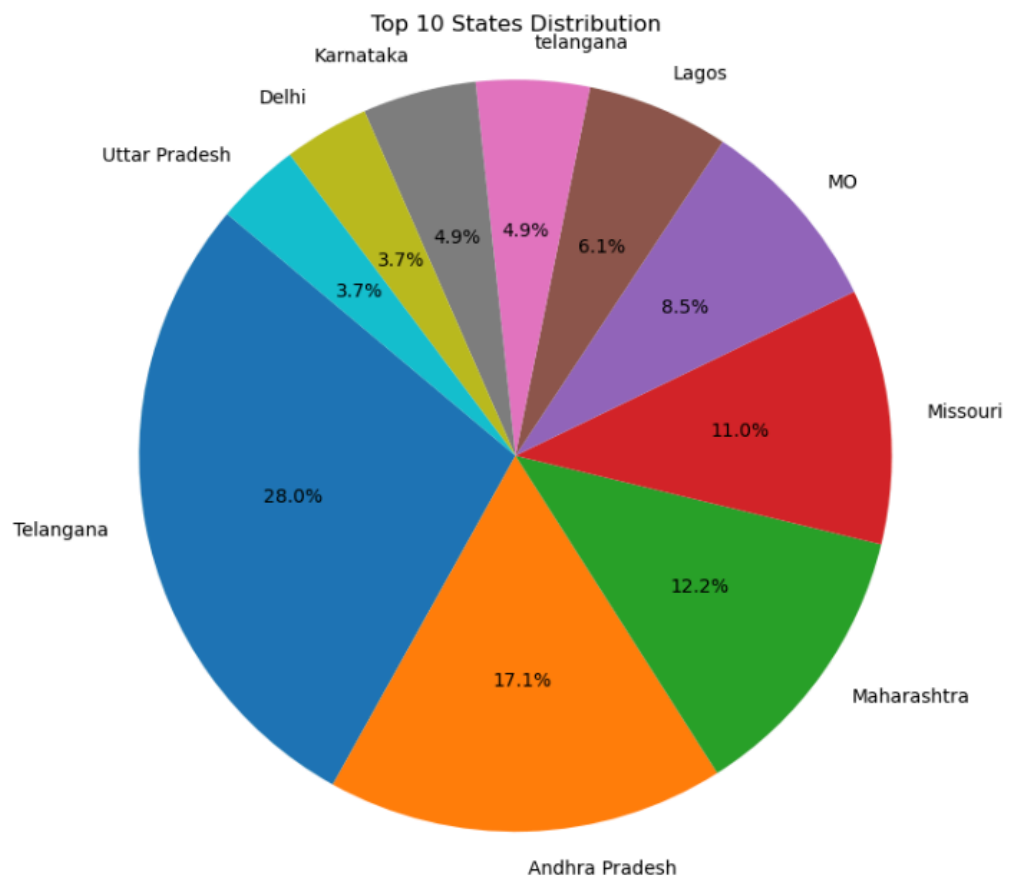


5. Global reach



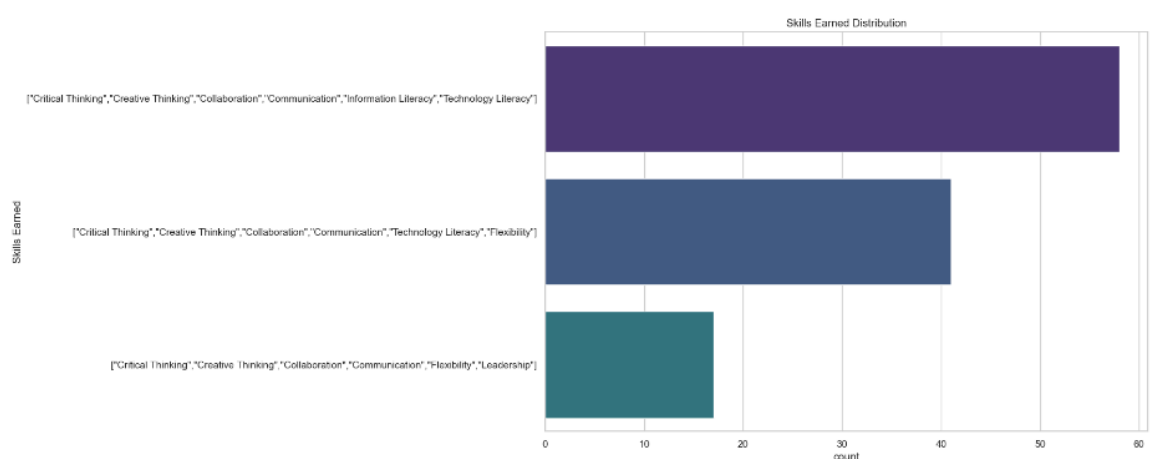
State

distribution



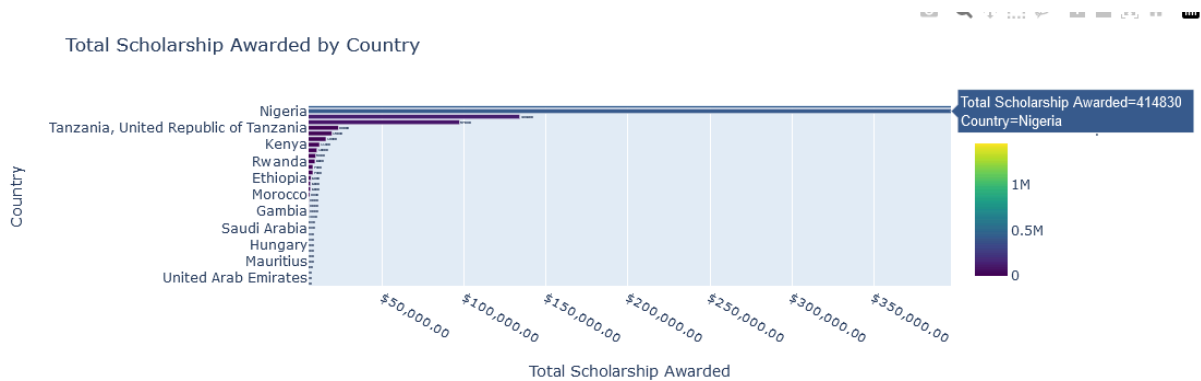
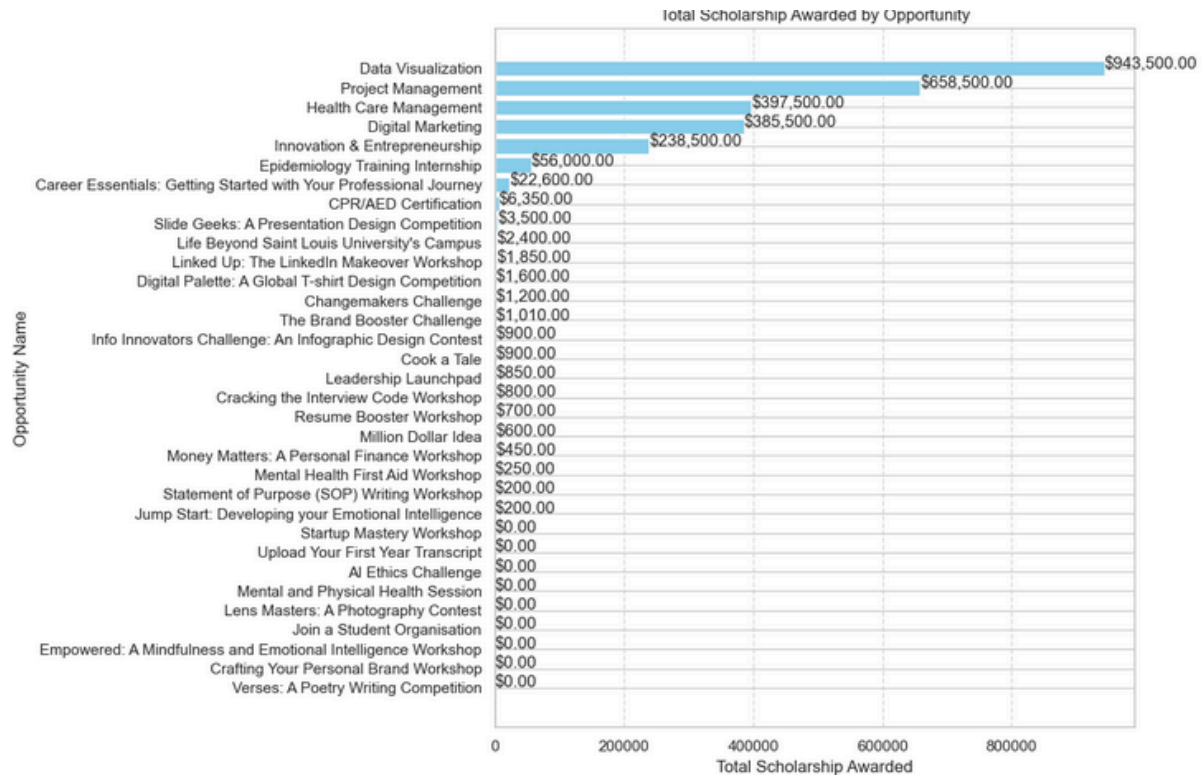
Explanation: Telangana & Andhra Pradesh beat maximum for students considering this opportunity where as UP lags the least.

6. Skill development trends



7. Scholarship Impact

Explanation: Data Visualization gets highest scholarship followed by project management



Explanation: India gets the most scholarships among other countries.

Conclusion:

- As per the user overview, it seems that recent graduates are more likely to approach for the internship opportunity.
- Demographics shows India ranks highest among maximum users over the platform then rest.
- Skill matrix shows critical thinking , collaboration , communication , technology literacy, creative thinking which are a core essential component of any field and especially for Data visualisation. Moreover, with the help of diverse learning opportunities, the students are getting benefited.
- Opportunity metrics allow us to measure the effectiveness of various courses. While project management shows the highest usage, other courses like digital marketing are equally important. Digital marketing, in particular, is an essential skill that should be promoted widely to maximise benefits for individuals and organizations alike.
- In scholarship trends, data visualization appears to be the most popular. To ensure more students can access scholarships, other courses should also be structured in a similar, accessible manner.