

# Problem Statement

In here I have 10,000 college students, dataset which simulates the academic and professional profiles of the students, focusing on factors that influence placement outcome. Primary goal is to extract best insights from the data that, which factors are affecting college placements, and offer through placement strategy and planning to get higher chance in placement.

## Assumptions

- 1.No unusual occurrences on student placement dataset will have a substantial impact on the data used.
- 2.The information is still current and can be used to analyze the factors are responsible for placement in an efficient manner.
- 3.There are no unanticipated negatives to the student any advised technique.

4.The biggest factor affecting the effectiveness of student placement is Academic Performance or Internship Experience

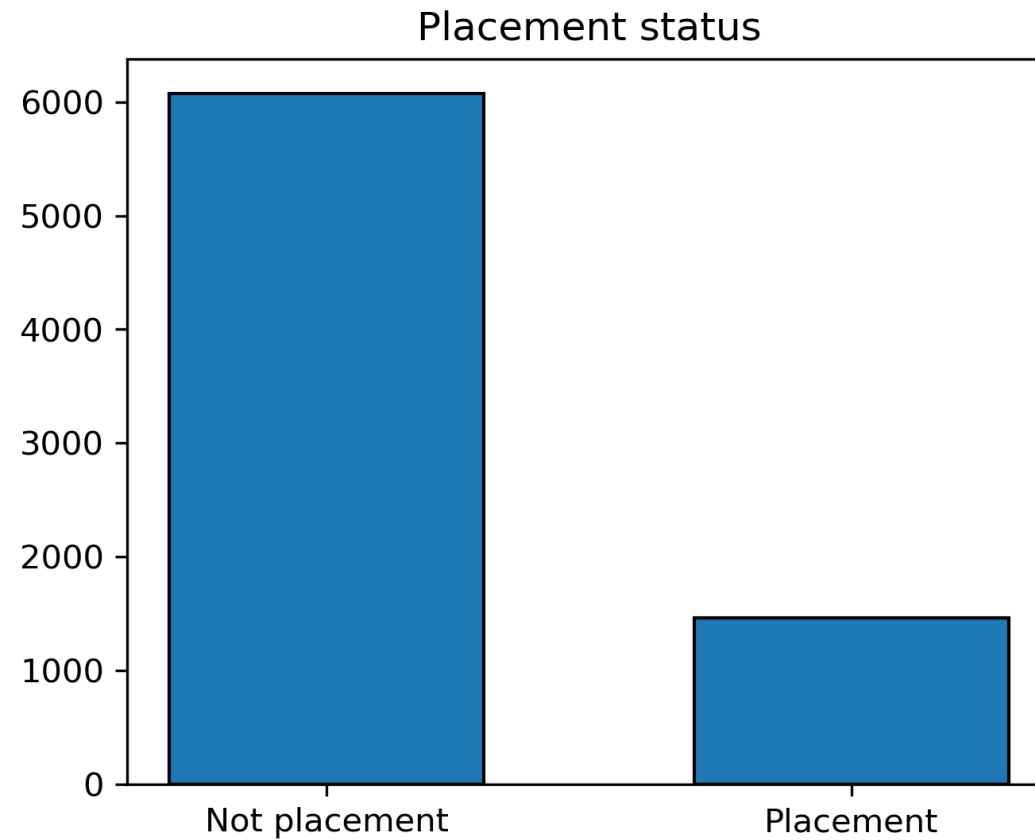
## **Research Question**

1. What are the variables that affect on student placement successful.
2. How can we make student placement better.
3. How will students be assisted in focusing on particular one or two area for placement.

## **Hypothesis**

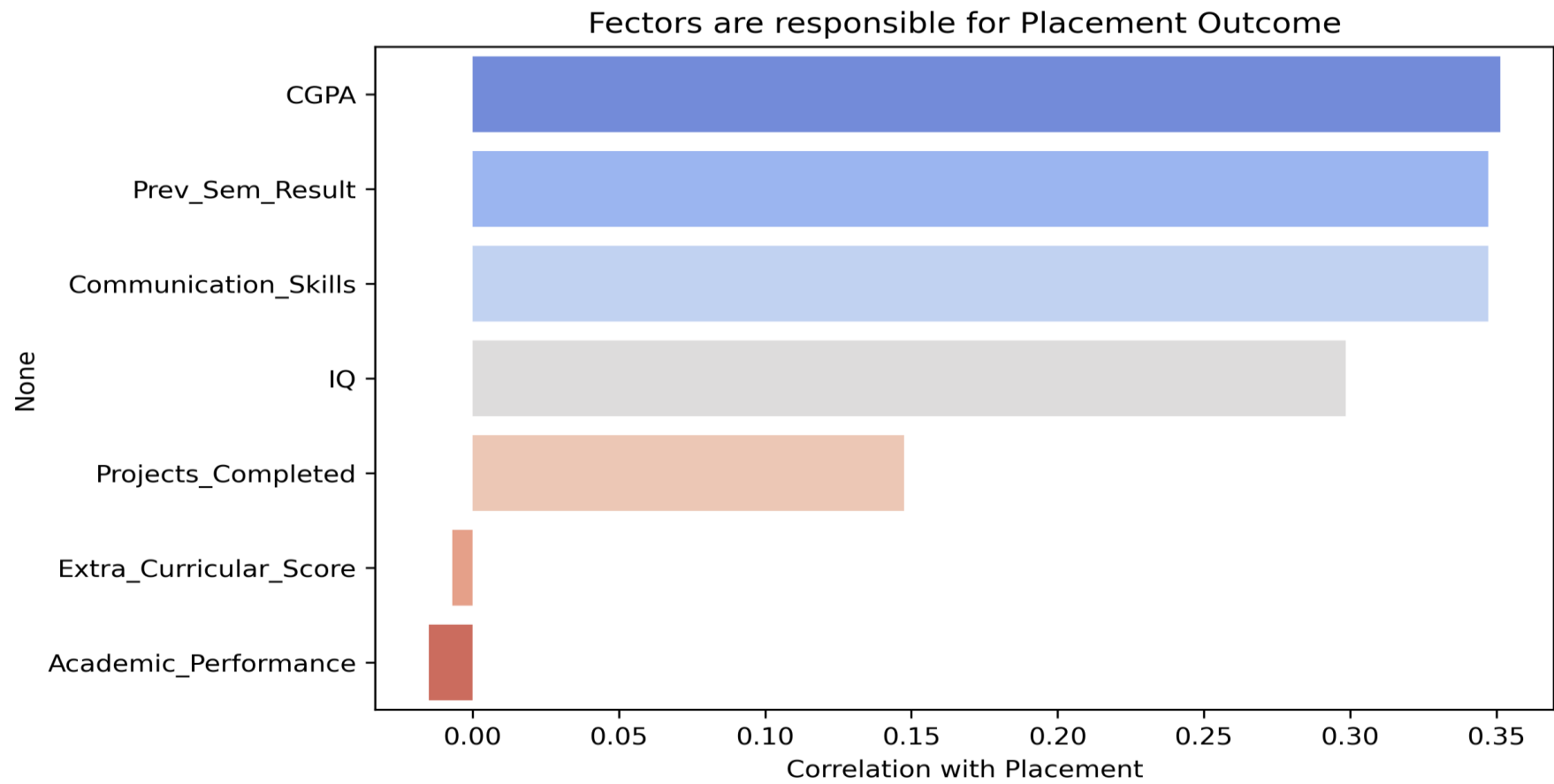
- 1.Placement occur when student have good Academic Performance and Internship Experience.
- 2.When there is good CGPA and Project Completed.
- 3.The majority of student have good communication skills.

# Exploratory Data Analysis (EDA) and Finding



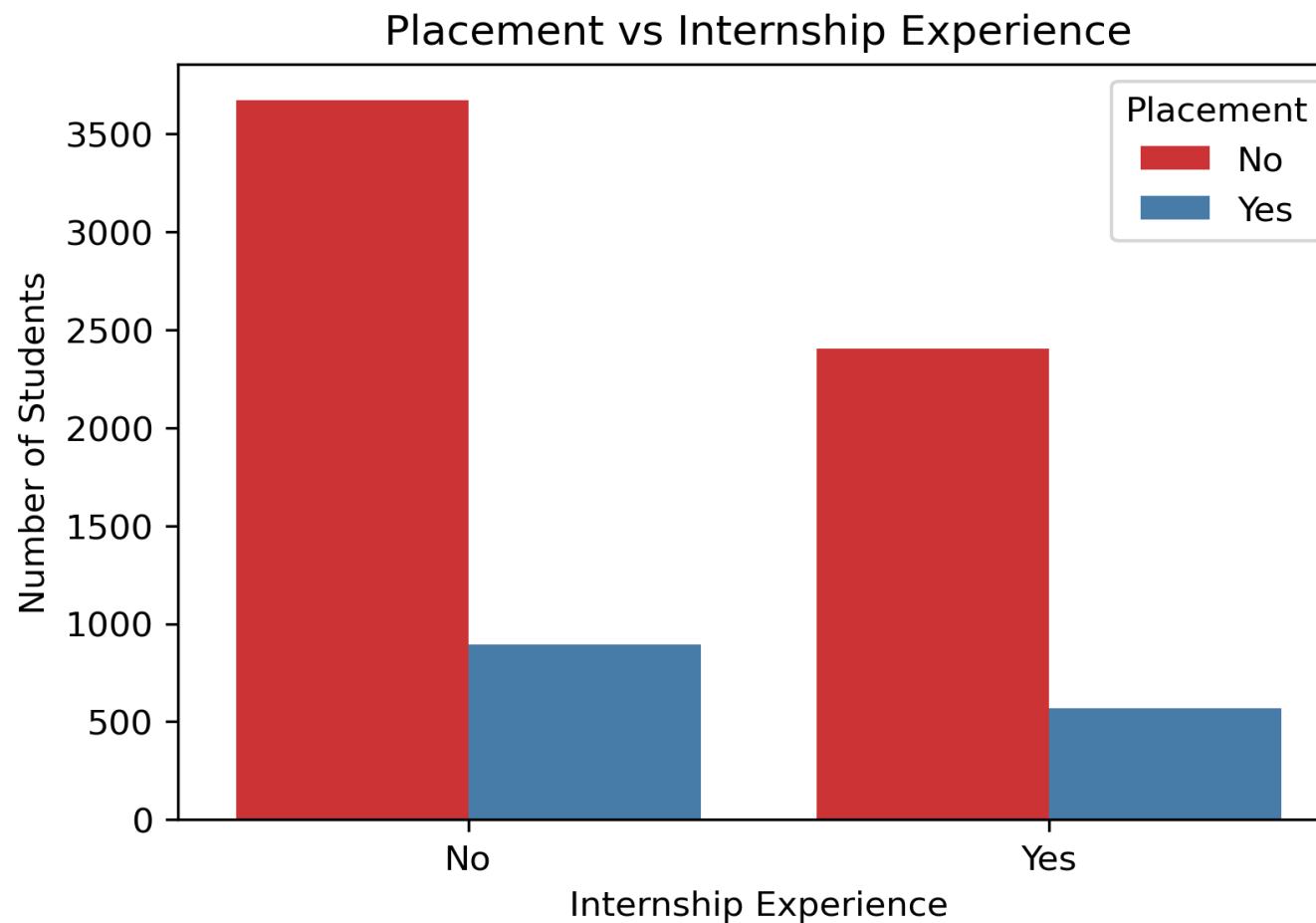
The accompanying bar graph shows the percentage of students that are placement and those that are not placement. It is obvious that there are still a significant number of student that have not been placement. There are still 80% of student who are not placement in there on campus selection. Which has a significant impact on the students' carrier.

## Correlation with Placement

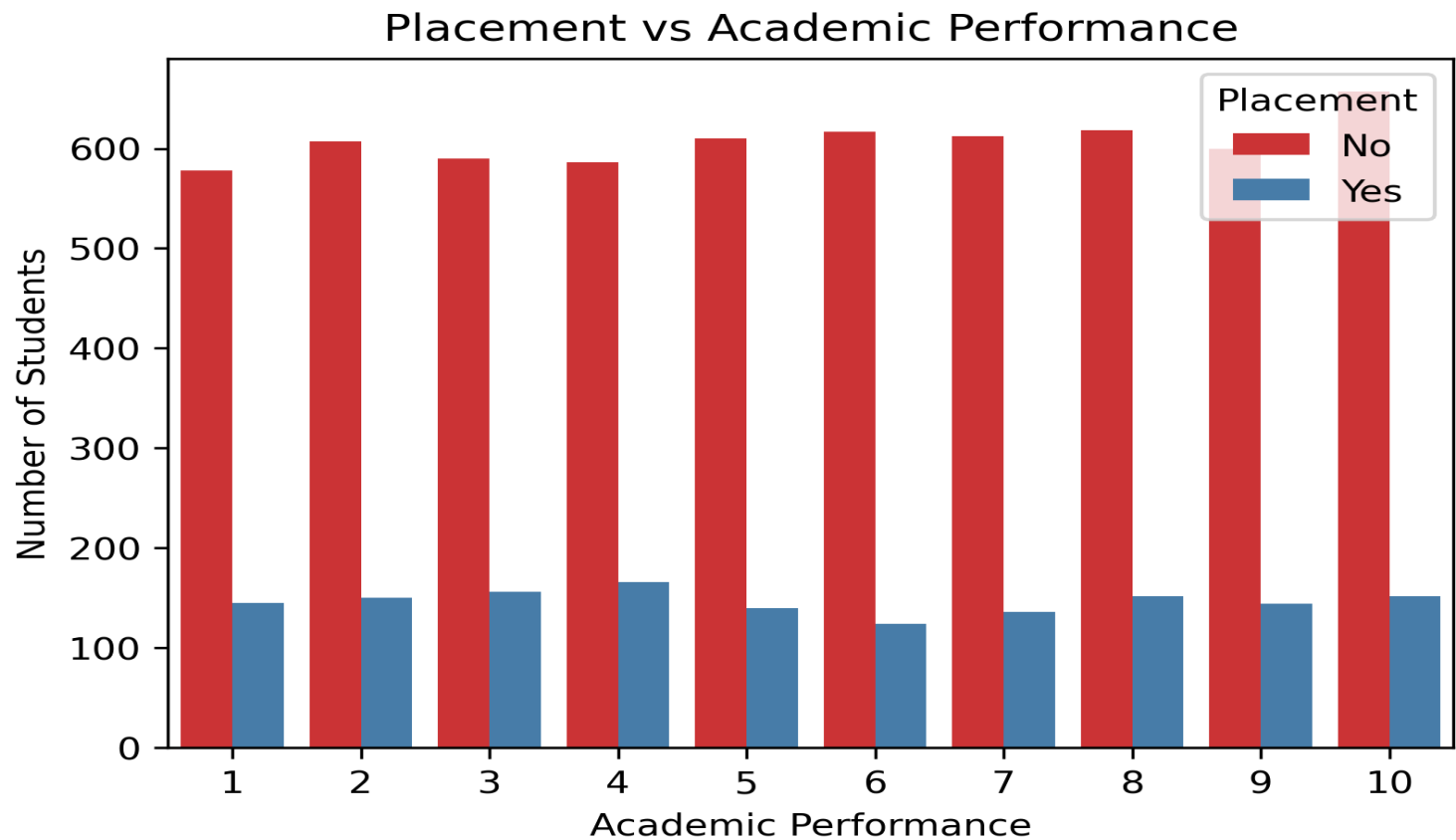


In comparison to Projects Completed, Extra Curricular score, and Academic Performance Score. CGPA, Previous semester result, and Communication Skills are more influencing factors for placement outcome. It's possible that companies are reaching to the college are not for Academic Performance and Extra Curricular score

## Performing EDA



Although some students have internship experience, their placement rate is relatively lower. In contrast, students **without internship experience** appear to have a **higher placement rate**. This suggests that, in this dataset, **internship experience does not strongly correlate with successful placement**, and other factors may have played a more significant role.



We observe from the graph that students with **higher academic performance** tend to have a **lower placement rate**, whereas students with **lower academic performance** show a relatively **higher placement rate**.

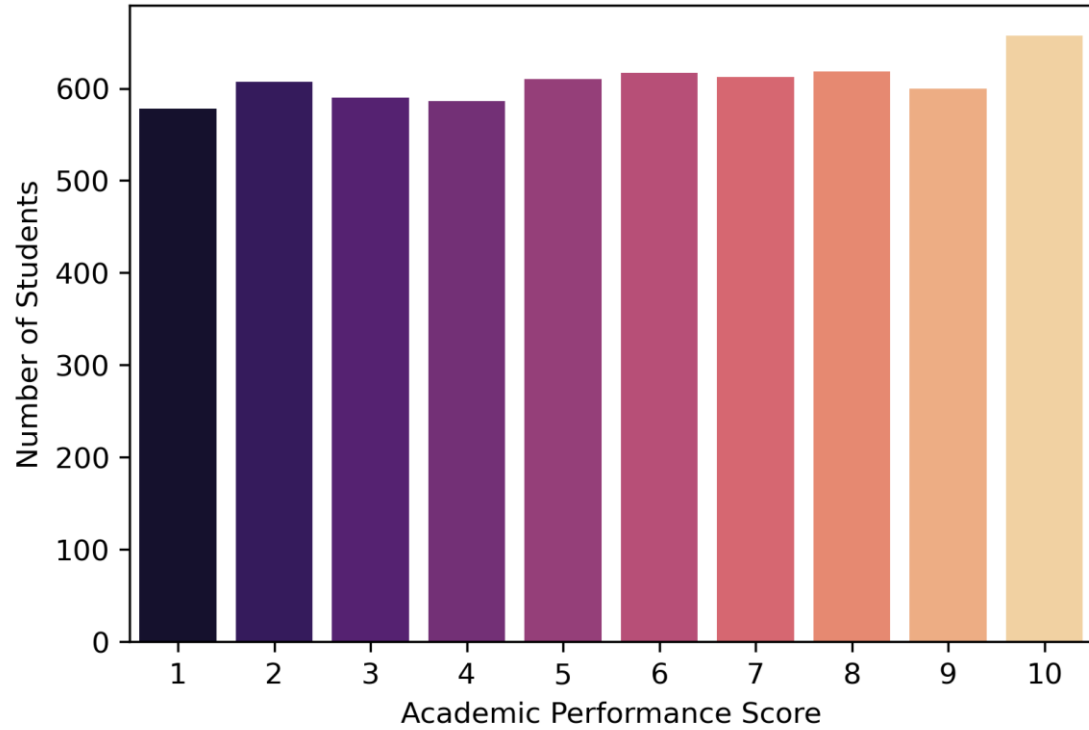
Where as Correlation between student **academic performance** and **Placement -0.0149** which is strongly negative, mean's **higher academic performance lower placement**.

This suggests that **academic performance may not be a key factor influencing placement outcomes**. Other factors—such as communication skills, CGPA, Previous semester scores—might play a more significant role in determining placement success.

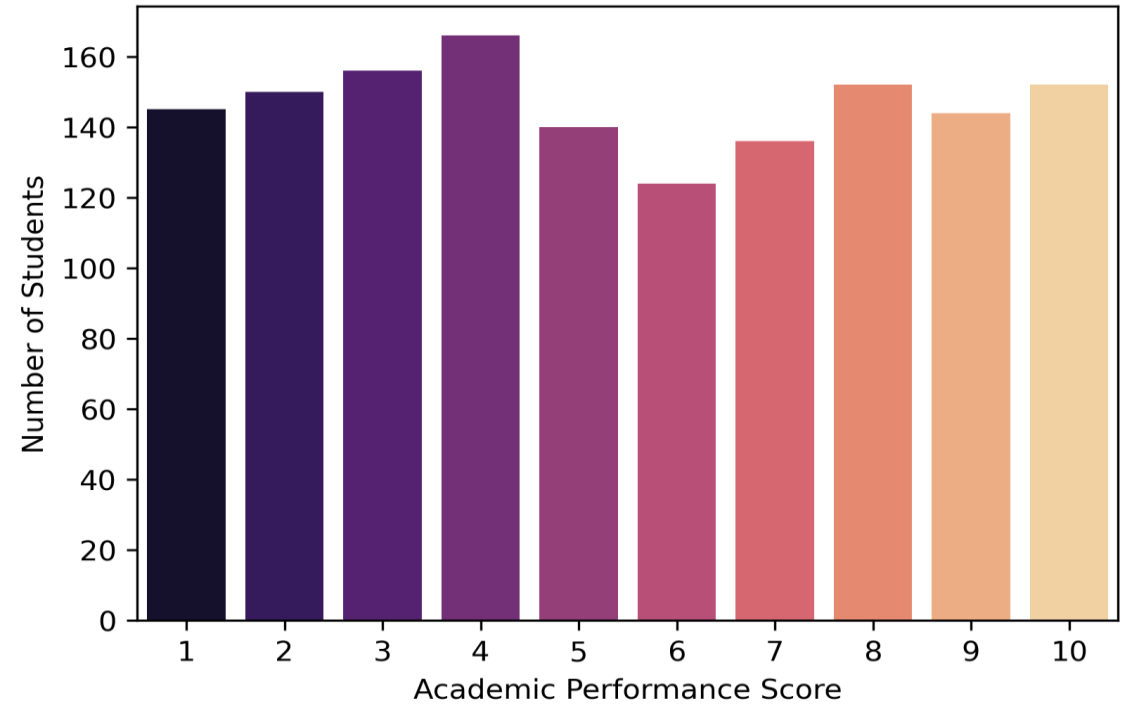
The first chart represents students who were **placed**, and the second chart shows students who were **not placed**, both categorized by their **academic performance**.

This comparison helps us understand how academic performance varies between placed and not placed students.

Academic Performance of Not placed Students



Academic Performance of Placed Students

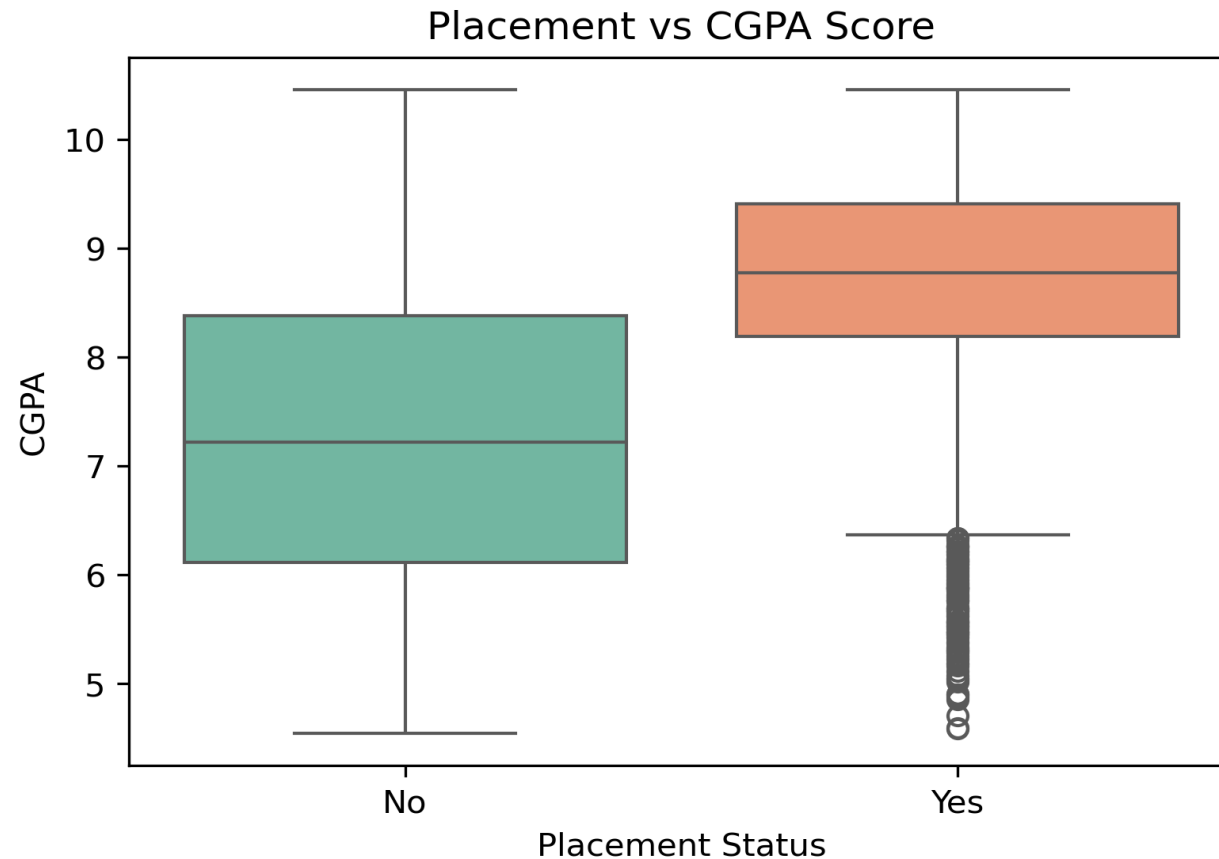




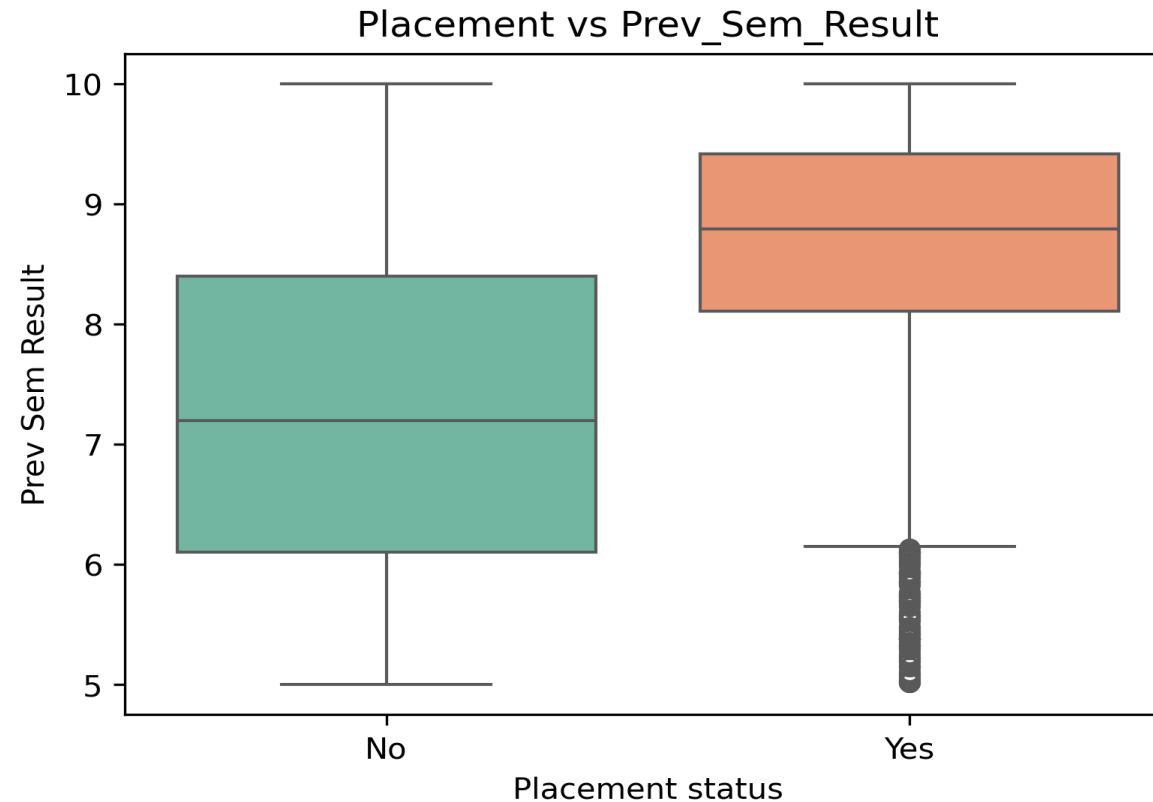
The correlation between **student CGPA and placement** is **0.3514**, indicating a **moderate positive relationship**. This means that students with **higher CGPA scores are more likely to be placed** compared to those with lower CGPA scores.

The graph further supports this observation, showing that **most placed students have relatively high CGPA scores**.

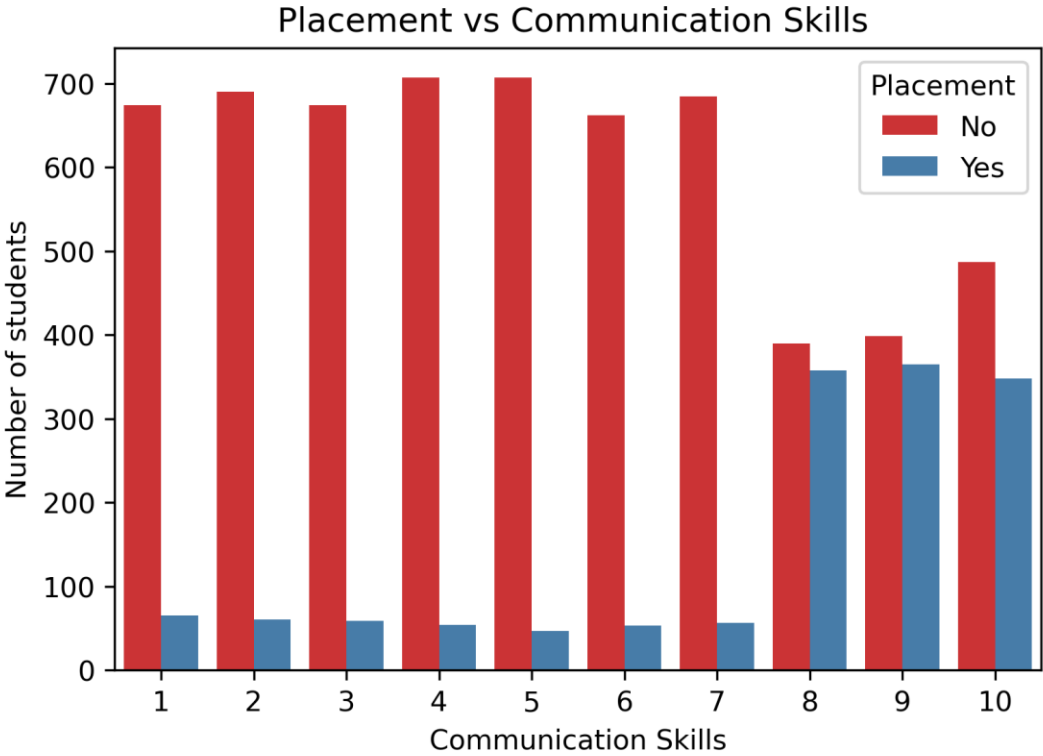
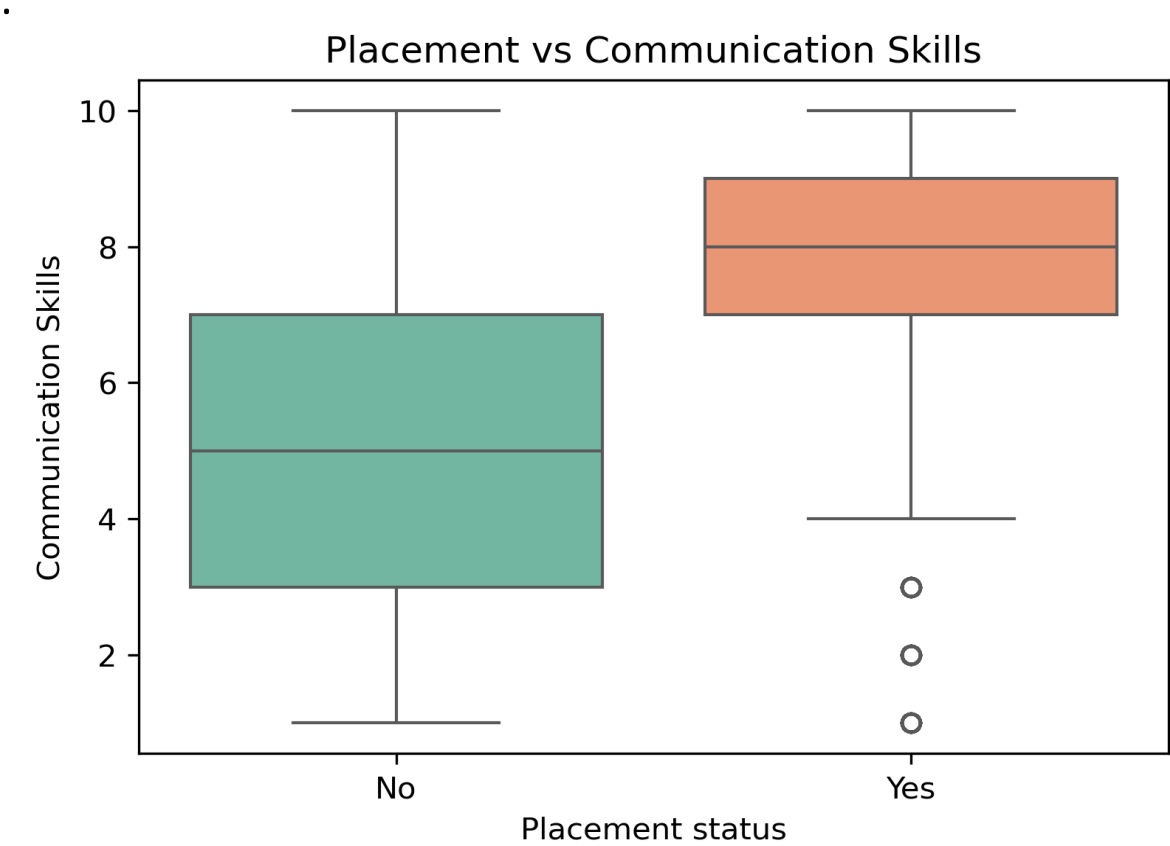
Thus, **CGPA appears to be an important factor influencing student placement outcomes**.



Similar to CGPA, the correlation between **Previous semester results** and **placement** is 0.3472, indicating a **moderate positive relationship**. This suggests that students with **higher previous semester scores are more likely to be placed** compared to those with lower scores. The graph supports this, showing that students with **better previous semester performance** have a **higher placement rate**. Therefore, **previous semester results—like CGPA—appear to significantly influence student placement outcomes**.



Unlike CGPA and previous semester results, **communication skills show a correlation of 0.0 with placement**, indicating **no statistical relationship** in the correlation analysis. However, the graph suggests that students with **good communication skills tend to have a higher placement rate** compared to those with poor communication skills. This implies that while the **numerical correlation is weak**, **communication skills may still play an important role** in placement outcomes, potentially in combination with other factors.



# Conclusion

Based on the analysis, **CGPA**, **previous semester results**, and **communication skills** are the most significant factors influencing student placement outcomes.

While **IQ** and **project completion** also contribute to placement, their impact is **less substantial** compared to the top three factors.

# Suggestions

- 1.** Training and development programs should prioritize **enhancing students' CGPA, communication skills, and academic consistency** (e.g., previous semester results), as these are the most influential factors for securing placements.
- 2.** Since **communication skills** play a key role, colleges should introduce **spoken English sessions, mock interviews, group discussions, and personality development workshops** to prepare students better for placement processes.
- 3.** While **IQ and project completion** have moderate impact, offering guidance on **project quality, innovation, and relevance to industry** can still boost placement readiness.
- 4.** Encourage participation in **extra-curricular activities and overall academic performance**, but these should be **secondary focus areas**, given their lower correlation with placement outcomes in this analysis.