

# ■ Placement Data Analysis Report (Data Analyst View)

## 1. Key Performance Indicators (KPIs)

- Placement Rate (%) - % of students who got placed.
- Average CGPA of Placed vs Not Placed.
- Internship-to-Placement Conversion Rate.
- Average Projects Completed by Placed Students.
- Soft Skills Index (Avg Communication + Extra-Curricular) for Placed vs Not Placed.

## 2. Questions to Ask (Exploratory Analysis)

- What is the overall placement rate of students?
- Do higher CGPA, IQ, and Previous Semester Results lead to better placement outcomes?
- Does having internship experience significantly increase chances of placement?
- How many projects do placed vs not placed students complete on average?
- Do communication skills and extra-curricular activities play a major role in placement?
- Which factor seems most important: Academics, Projects, Soft Skills, or Internships?

## 3. Visualizations & Insights (Results)

- Placement Overview (Pie Chart) → Placement rate = 2 out of 9 ( $\approx 22\%$ ). Very low.
- Academic vs Placement (Boxplot/Bar Chart) → Placed students had higher CGPA (7–8+) compared to most unplaced students ( $<6.5$ ). IQ doesn't show a strong difference.
- Internship Impact (Stacked Bar) → Only 1 student had internship experience and was not placed → internships alone didn't guarantee placement.
- Projects Completed (Bar Chart) → Placed students had 2+ projects, while unplaced had mostly 0–1 projects.
- Soft Skills Impact (Scatter + Bar) → Placed students had strong communication skills (8–10), unplaced were lower. Extra-curricular scores didn't show strong impact.
- Correlation Heatmap → Placement correlated most with CGPA, Communication Skills, and Projects.
- Comparison (Grouped Bar) → Placed students are clearly ahead in CGPA, Projects, and Communication Skills compared to unplaced ones.

## 4. Final Summary (Data Analyst Output)

Placement Rate is only 22% → very low compared to expected. CGPA, Communication Skills, and Projects Completed stand out as the strongest differentiators for placed students. Internships alone didn't guarantee placement in this dataset. Soft skills + academics combined gave students a higher chance of placement. **Recommendation:** College should focus on increasing project opportunities, enhancing communication training, and improving overall CGPA performance to boost placements.