

Employee Performance Analysis Report

Project Objective

Analyze employee performance data using statistical methods and Python programming to understand promotion trends.

Theory Summary

The project covers statistical concepts such as mean, median, mode, variance, skewness, probability, Bayes theorem, and PCA.

Practical Analysis

Python was used to compute central tendency, probability of promotion, contingency tables, distribution plots, and vector operations.

Key Insights

Employees with higher performance scores show increased promotion probability. Salary distribution indicates skewness, and performance scores approximate a normal distribution.

Conclusion

Statistical analysis combined with visualization helps organizations make better HR decisions.

Important Findings

- 1 Performance Score > 80 increases promotion chances.
- 2 Projects completed vary moderately across employees.
- 3 Department impacts promotion outcomes.
- 4 Gaussian distribution observed in performance scores.