PROJECT INSIGHTS

1. **Performance Score strongly influences promotion decisions**
   Employees with a **Performance_Score greater than 80** show a **significantly higher probability of promotion** compared to others, indicating a performance-driven promotion policy.
2. **Salary distribution is not perfectly normal**
   Statistical analysis shows noticeable **skewness in salary distribution**, meaning a small number of employees earn significantly higher salaries than the majority.
3. **Projects Completed vary widely among employees**
   High variance and standard deviation in **Projects_Completed** suggest differences in workload, experience, or role responsibilities across departments.
4. **Working hours and project count reflect employee effort**
   Linear algebra analysis (dot product and vector angle) shows that employees with similar **working hours and project completion patterns** exhibit comparable work intensity.
5. **High performance does not guarantee promotion**
   Although high performers have better promotion chances, not all high-scoring employees are promoted, indicating the influence of **departmental needs, policies, or experience**.
6. **Normality tests highlight realistic workplace data**
   Q-Q plots show deviations from perfect normality, which is expected in real-world organizational datasets.
7. **Data-driven insights support HR decision-making**
   The project demonstrates how **statistical methods and Python analysis** can assist HR teams in evaluating employee performance and promotion strategies objectively.

Short Summary

Employee promotion is strongly performance-driven, but salary structure and workload distribution indicate organizational diversity and role-based variation.