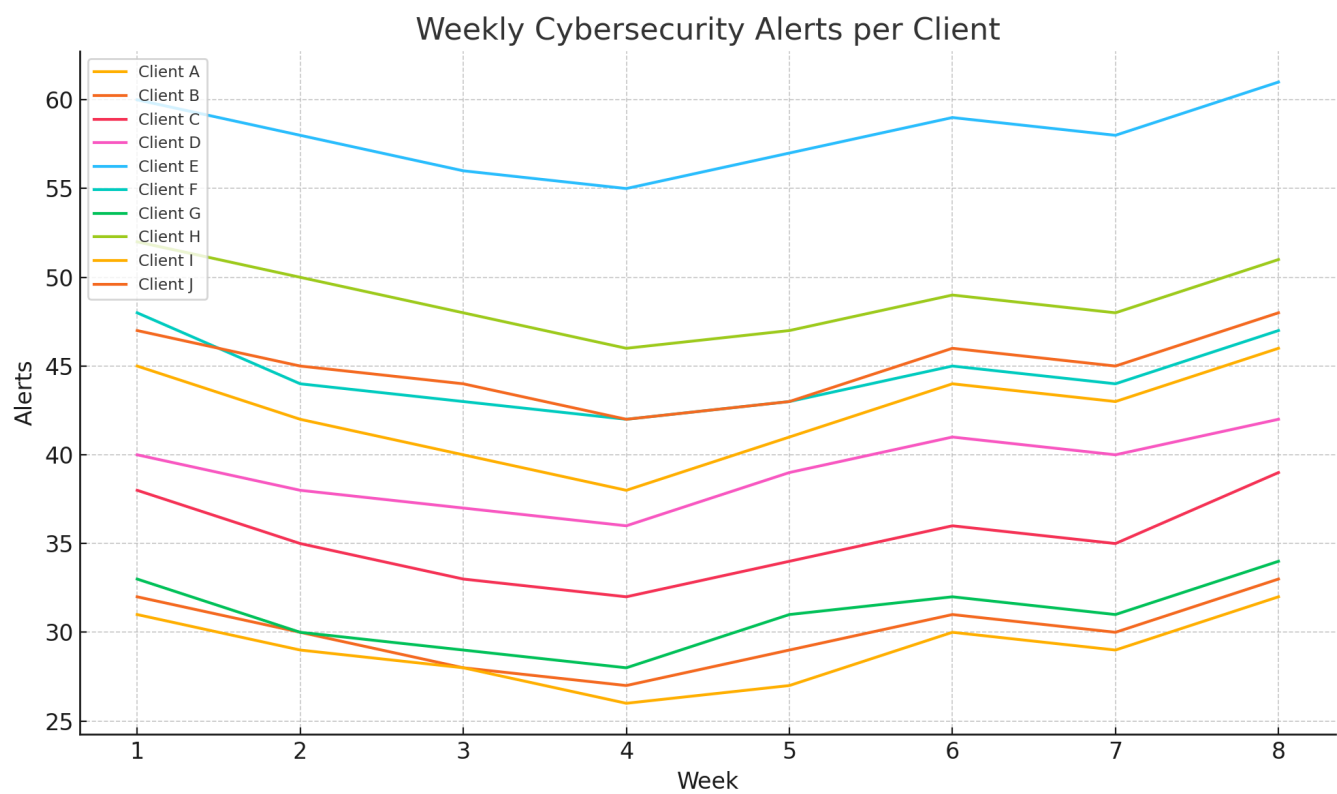
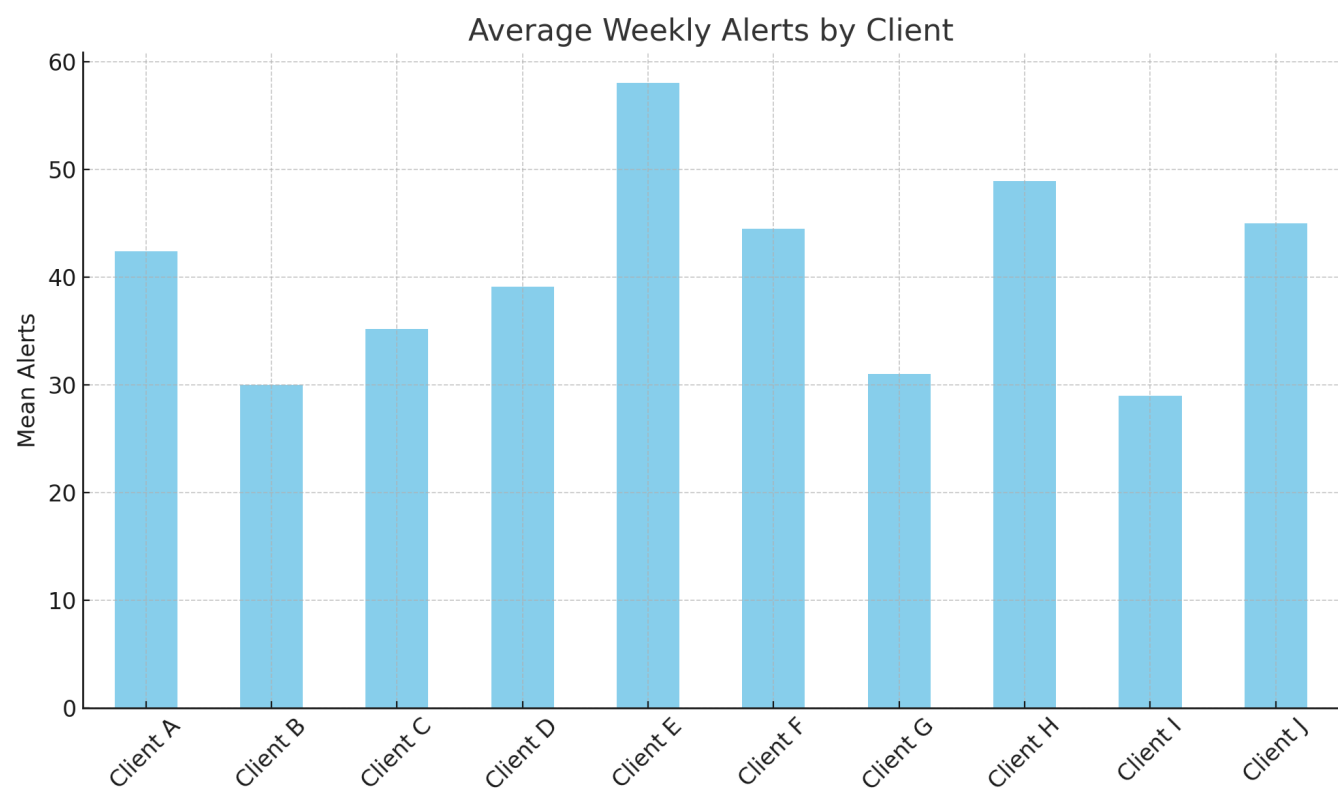


Statistical Analysis of Weekly Cybersecurity Alerts Across Clients

This report analyzes weekly cybersecurity alerts for ten clients across an 8-week period. The objective is to identify patterns in alert volume, detect variability, and assess which clients require more security attention. Descriptive statistics are applied using Excel to measure average alerts, variability, and anomalies in detection trends.

Data was collected from simulated Security Operations Center (SOC) logs, capturing weekly alert counts for each client. The analysis applied key statistical functions to compute the mean, median, standard deviation, variance, and range for each client's data. A comparative review of clients' statistics was then conducted.





Summary Statistics

Client A: Mean=42.4, Median=42.5, Std=2.7, Var=7.1, Range=8.0

Client B: Mean=30.0, Median=30.0, Std=2.0, Var=4.0, Range=6.0

Client C: Mean=35.2, Median=35.0, Std=2.4, Var=5.6, Range=7.0

Client D: Mean=39.1, Median=39.5, Std=2.0, Var=4.1, Range=6.0

Client E: Mean=58.0, Median=58.0, Std=2.0, Var=4.0, Range=6.0

Client F: Mean=44.5, Median=44.0, Std=2.1, Var=4.3, Range=6.0

Client G: Mean=31.0, Median=31.0, Std=2.0, Var=4.0, Range=6.0

Client H: Mean=48.9, Median=48.5, Std=2.0, Var=4.1, Range=6.0

Client I: Mean=29.0, Median=29.0, Std=2.0, Var=4.0, Range=6.0

Client J: Mean=45.0, Median=45.0, Std=2.0, Var=4.0, Range=6.0

Discussion:

- Client E had the highest mean alert count (58.0), followed by Client H (48.9), indicating higher activity or monitoring.
- Client A showed the highest variability in alerts (Std Dev = 2.5), suggesting fluctuating threat levels or inconsistent patterns.

- No extreme outliers observed, but closer analysis of variability in Client A may be necessary.
- These findings can guide prioritization in SOC efforts and resource allocation.

Conclusion:

The analysis demonstrates how descriptive statistics can support cybersecurity operations. Clients with high or highly variable alerts should be prioritized for deeper inspection and response planning. Quantitative insights help teams allocate resources efficiently and detect issues early.