# Advertising Channel Impact Analysis – SQL Project

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## Objective

This project analyzes how different advertising channels impact product sales using SQL. The dataset includes spend data for TV, Google Ads, social media, Influencer Marketing, and Affiliate Marketing. The goal is to uncover which channel has the highest correlation with product sales, assisting marketing teams in making data-driven budgeting decisions.

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## Tools and Techniques Used

- SQL (SQLite)

- DB Browser for SQLite

- Python (for cross-verification)

- Microsoft Word for interview notes

- GitHub for project portfolio

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## Analyses Performed

| Metric | Purpose |

| ✅ Averages | Understand central tendency of each channel |

| ✅ Standard Deviation | Measure spread or variability in data |

| ✅ Covariance | Direction of relationship between ad spend and sales |

| ✅ Pearson Correlation | Strength of linear relationship between variables |

| ✅ Top 5 by Google Ads | Find highest spenders |

| ✅ Spend Level Bucketing | Categorize spend into Low, Medium, High |

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## Key Insights

- Affiliate Marketing had the highest correlation with sales.

- TV and Social Media had strong to moderate correlations.

- Google Ads and Influencer Marketing were less effective in this dataset.

- Most high-performing records spent medium to high amounts on TV and Affiliate Marketing.

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