

## Google Data Analytics Certificate - Module 5

### Overview

Module 5, *Analyze Data to Answer Questions*, focuses on the "Analyze" phase, covering techniques to analyze data and derive insights. It introduces advanced spreadsheet functions and basic statistical methods. Designed for beginners, this module requires approximately 22 hours to complete and includes videos, readings, assignments, and quizzes.

### Key Components

- **Data Analysis Techniques:** Exploratory data analysis, aggregation, and statistical measures (e.g., mean, median).
- **Spreadsheet Analysis:** Using advanced functions (e.g., PIVOT tables, conditional formatting) for analysis.
- **SQL for Analysis:** Writing complex queries (e.g., JOIN, GROUP BY) to analyze data.
- **Statistical Concepts:** Introduction to correlation, trends, and basic hypothesis testing.
- **Transferable Skills:** Applying problem-solving skills (e.g., from project management) to interpret data insights.

### Delivery and Assessment

The module includes videos, readings, assignments (e.g., creating pivot tables), and quizzes, delivered by Google instructors. It is self-paced and includes activities like analyzing datasets with SQL. Assessments include quizzes on analysis techniques and statistical concepts.

### Learning Outcomes

Participants will learn to analyze data using spreadsheets and SQL, applying statistical methods to derive insights. They will develop skills to answer business questions, preparing for data visualization in the next module.

### Conclusion

Module 5 equips learners with the skills to analyze data and derive meaningful insights, aligning with industry standards. It prepares them for visualizing data effectively in subsequent modules.