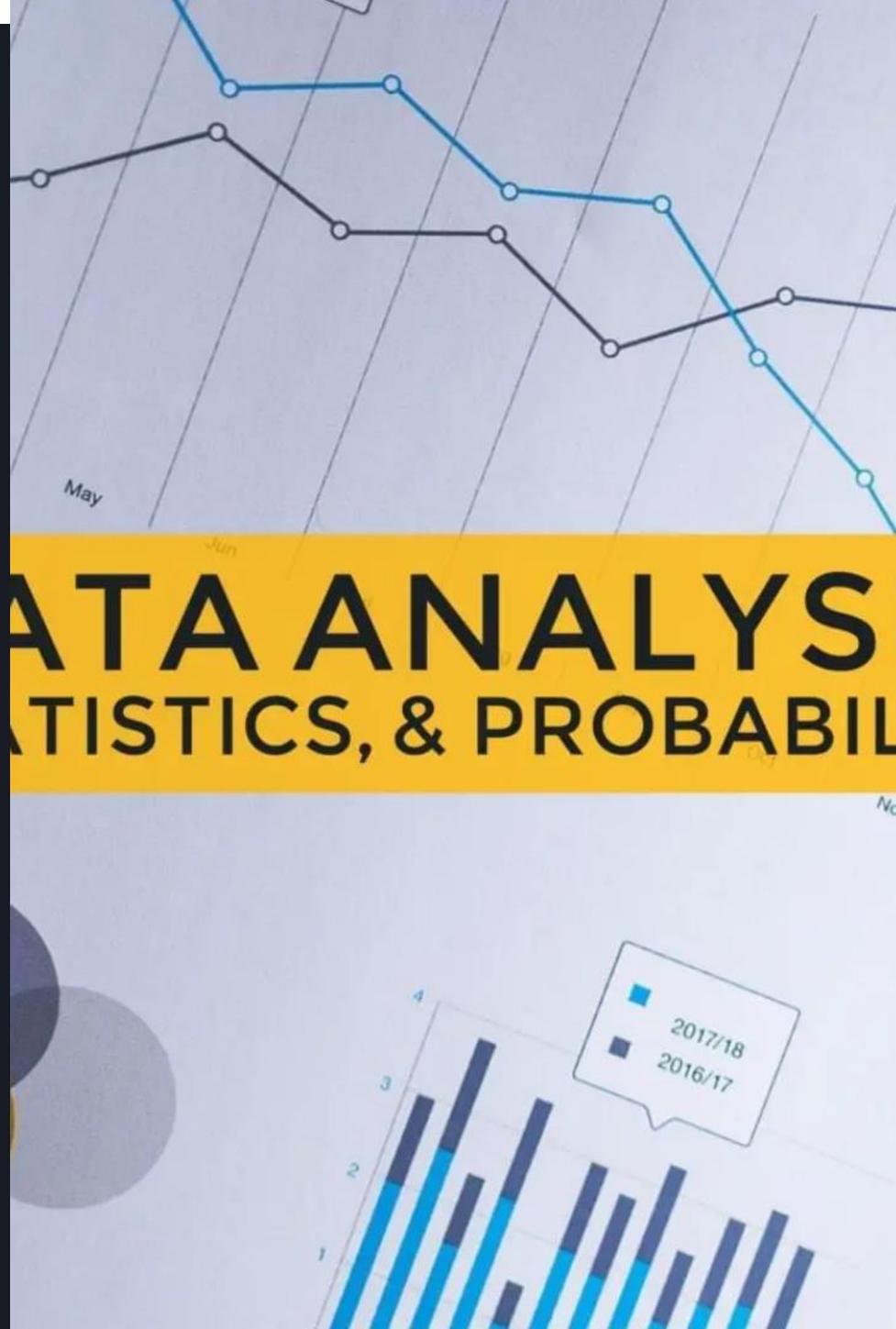
Characteristics of Statistics

SGK GOVT DEGREE COLLEGE,VINUKONDA
LECTURER IN COMMERCE

CH. vijaya kalpana



Definition of Statistics

Statistics is the study of data collection, organization, analysis, interpretation, and presentation. It provides insights into trends, patterns, and relationships within a dataset.

Uses of Statistics

1

Decision Making

Statistics helps in informed decision making by providing quantitative evidence and insights.

2

Research

It is an essential tool in scientific research, aiding in data analysis to draw meaningful conclusions.

3

Forecasting

Statistical models and techniques enable predictions and projections of future outcomes.

Types of Statistics

Descriptive Statistics

Summarizes and describes data using measures like mean, median, and standard deviation.

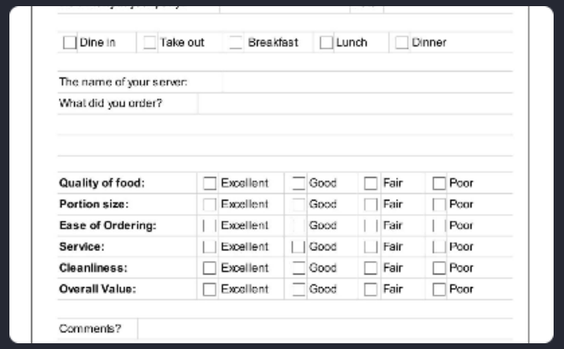
Inferential Statistics

Uses sample data to make generalizations or predictions about a population.

Probability

Deals with uncertainty and calculates the likelihood of events occurring.

Data Collection Methods



☐ Dine in ☐ Take out ☐ Breakfast ☐ Lunch ☐ Dinner

The name of your server:

What did you order?

Quality of food:	☐ Excellent	☐ Good	☐ Fair	☐ Poor
Portion size:	☐ Excellent	☐ Good	☐ Fair	☐ Poor
Ease of Ordering:	☐ Excellent	☐ Good	☐ Fair	☐ Poor
Service:	☐ Excellent	☐ Good	☐ Fair	☐ Poor
Cleanliness:	☐ Excellent	☐ Good	☐ Fair	☐ Poor
Overall Value:	☐ Excellent	☐ Good	☐ Fair	☐ Poor

Comments?

Surveys

Gather information by questioning a sample or population using structured forms.

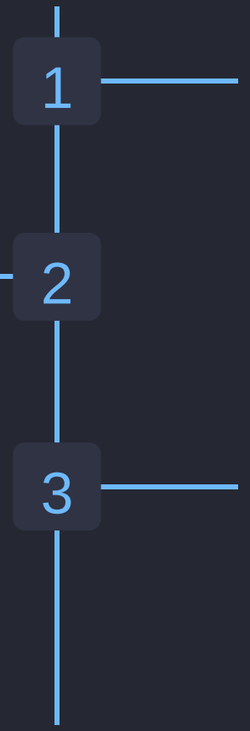
Interviews

Collect data through face-to-face discussions or phone conversations with individuals or groups.

Observations

Record data by systematically watching and recording behaviors or events.

Statistical Analysis Techniques



Hypothesis Testing

Determine if an observed difference between groups is statistically significant.

Regression Analysis

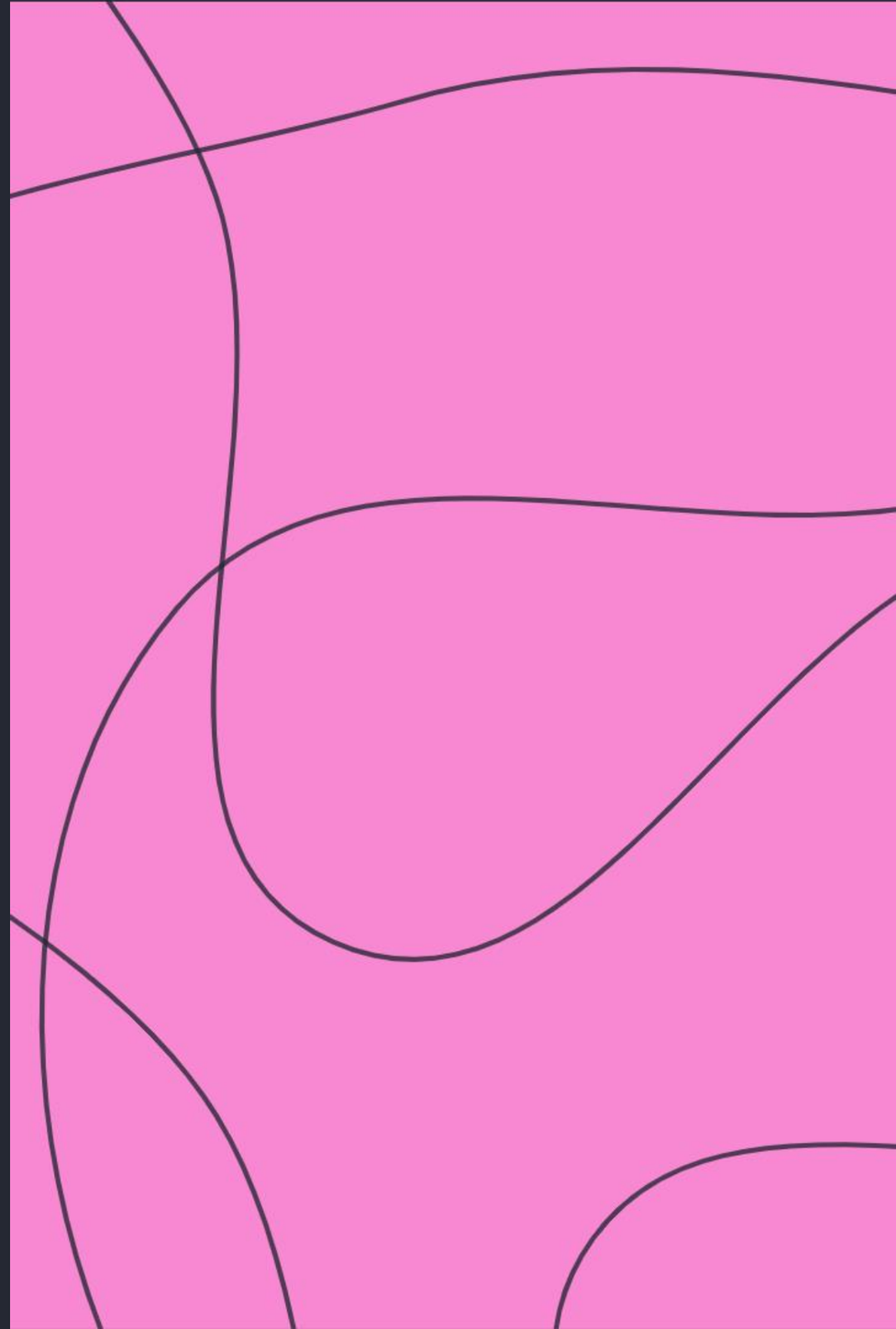
Explore relationships between variables and predict outcomes.

ANOVA

Analyze differences between multiple groups to find the source of variation.

Interpretation of Statistical Results

Interpreting statistical results involves understanding the context, evaluating significance, and drawing meaningful conclusions that inform decisions and actions.



Applications of Statistics in Various Fields

Business

Identifying market trends, analyzing financial data, and optimizing business processes.

Healthcare

Assessing treatment effectiveness, analyzing disease patterns, and conducting clinical trials.

Social Sciences

Studying human behavior, conducting surveys, and analyzing demographic data.