



# PB Group

## Data Analysis Courses



### A. Installation and basics introduction.

### B. Data Fundamentals

- ✓ Data Properties
- ✓ Create a data entry template
- ✓ Sample Questionnaire
- ✓ Data Entry & Data Cleaning Practices
- ✓ Handling different formats of database (.xlsx, csv, sql, spss, stata...)

### C. Data Processing

- ✓ Open/ Close or Import Export Data
- ✓ Find and Replace
- ✓ CURD(Create, Update, Read & Delete) Operations.
- ✓ Identify duplicates and remove them.
- ✓ Merge & Append dataset.
- ✓ Sorting
- ✓ Transpose & Restructure the dataset
- ✓ Data Comparison
- ✓ Selection and filter features
- ✓ Data Cleaning Techniques

### D. Data Analysis & Interpretations

#### D.1 Transform

- ✓ Calculation and apply a formula
- ✓ Recode the cases

- ✓ Process string/text data
- ✓ Data Categorization
- ✓ Working with date & time dataset

## D.2 Descriptive Statistics

- ✓ Generate frequencies
- ✓ Calculate descriptive statistics (mean, median, sd....)
- ✓ Generate one/multi-way pivot tables.
- ✓ Count, Percentage and other customized features.

## D.3 Statistical Tests

- ✓ Concepts on Statistics and appropriate test selection
- ✓ T-test (one/Independent/ Paired sample)
- ✓ ANOVA
- ✓ Chi-square test
- ✓ Correlation
- ✓ Regression
- ✓ Reliability Analysis

## E. Data Visualization

- ✓ Data Visualization concepts
- ✓ Types of Graphs and Charts
- ✓ Generate appropriate visualization
- ✓ Editing
- ✓ Export

## F. Automation

- ✓ Write data analysis scripts/ code
- ✓ Automate the process/tasks.

## G. Project Work

## H. Certification and Closing ceremony