

DataQuest Solutions

Data Analysis With R

Lesson 1. Introduction to R

- R syntax and basic operations
- R Studio Environment
- Installing and Loading packages

Lesson 2. Data Structures in R

- Vectors
- Matrices
- Factors
- Lists
- Data Frames

Lesson 3. Data Importation & Inspection

- Reading the data (csv & excel)
- Checking the structure of the dataset
- Checking for missing values
- Checking for duplicates using
- Checking for outliers

Lesson 4. Data Cleaning & Preparation

- Handling missing values
- Handling duplicates
- Data type conversion
- Data Manipulation
- Handling Outliers
- Label and One hot encoding

Lesson 5. Exploratory Data Analysis

- Summary Statistics
- Frequency Distributions
- Data Visualization
- Correlation Analysis

Lesson 6. Inferential Statistics

- Chi-Square test
- T-Test
- ANOVA

Lesson 7. Regression Analysis

- Linear Regression
- Logistic Regression
- Model Diagnostics
- Multivariate Regression

Lesson 8. Hands-on Project

- Reporting
- Communication of findings