

# DATA ANALYST ROADMAP

## Google Sheets

### Module 1. Basics

- Basics
- Preparation
- Formatting
- Calculation
- Automate

### Module 2. Functions

- IF
- VLOOKUP
- COUNTIF
- COUNTIFS
- SUMIF
- SUMIFS

### Module 3. Pivot tables dashboards

- Intro to Pivot
- Tables
- Analyzing data
- using pivot table
- Putting it all together



## SQL

### Module 1. Operators, Queries

- Intro to SQL & its terminology
- Basics
- Working with Operators
- Working with Strings & Datetime
- Mastering complex SQL Queries With basic Statements

### Module 2. Advanced Queries

- Aggregate functions
- HAVING clause
- SQL Joins
- Sub Queries

### Module 3 Advanced functions

- Windows
- functions
- CONTROL F
- FUNCTIONS
- HANDLING NULL
- VALUES
- DATABASE
- NORMALIZATION



## Power BI

### Module 1: Setup & Dashboards

- Intro To Power BI
- Connecting to data sources and creating basic charts and Visuals
- Cleansing data with Query Editor
- Creating Reports by Combining all Visuals
- Types of Visuals in Power BI
- Addition to new columns using power Query
- Transforming Columns in Query Editor

### Module 2: Modeling & Optimization

- Modeling and Optimization
- Customizations
- Interaction
- Intro to DAX



## Python

### Module 1: Operators & Functions

- Intro
- installation
- Basic Operations
- Brief on Jupyter Notebook
- Data types, Variables & Numbers
- Strings
- List
- Conditional Statements if/else
- Looping
- Functions

### Module 2: Arrays Intro on Numpy

- Creating arrays
- Indexing Arrays
- Array Transposition
- Shape Manipulation
- Conditional Selection
- Array Operations Broadcasting

### Module 3: Datasets & DataFrames

- Intro to Pandas
- Reading Local Data Set
- How to read Data Files from Pandas
- How To Write data using Pandas
- Creating DataFrame
- Playing With Row and Columns of DataFrame
- Handling Missing Values using Pandas
- Aggregate Data in Pandas
- Merge Operation on Data Frames

### Module 4: Plots & Charts

- Intro to Matplotlib
- Basics of Matplotlib Figure
- Creating Line Plots
- Adding Texts to Plots
- Adding Legends
- Adding labels
- Applying Different Styles
- Subplots
- Scatter Plot
- Bar Chart
- Pie Chart
- Histogram
- Heatmap
- Plotting Curves
- Brief on Visualization Python Libraries



## Statistics

### Module 1. Basics Intro to Statistics

- Central Tendency , Variance
- Inferential Statistics
- Types of Probability Distribution

### Module 2. Data & Hypothesis

- Exploratory Data Analysis
- Data Preprocessing
- Hypothesis Testing ( Parametric Tests)
- Chi Square Test & 1 Way ANOVA

