Excel
ROADMAP
FOR DATA ANALYTICS

<u>Phase 1 -</u> Basic Excel Skills

Excel Interface and Basics

- Understanding the Excel interface (ribbons, menus, sheets).
- Basic operations (opening, saving and navigating workbooks).
- Data entry and formatting.

Basic Formulas and Functions

- Arithmetic operations (SUM, AVERAGE, COUNT).
- Text functions (LEFT, RIGHT, MID , CONCATENATE).
- Logical functions (IF, AND, OR , NOT).

Data Formatting

- Cell formatting (number, text, date).
- Conditional formatting and formatting tables.

<u>Phase 2 –</u> Intermediate Excel Skills

Data Cleaning and preparation
- Removing duplicates.
- handling missing values.
- Data validation techniques.

Advanced Formulas and Functions
- Lookup functions (VLOOKUP, HLOOKUP, INDEX, MATCH).
- Date and time functions (TODAY, NOW , DATE , YEAR).
- Array formulas and dynamic arrays.

Data Visualization
- Creating basic charts (Line, Bar, Pie).
- Advanced charts (Scatter plots, Histograms, Pivot, Charts), sparklines and conditional charts.

Phase 3 – Advanced Data Analysis

Pivot Tables and Pivot Charts
- Creating pivot tables.
- Customizing pivot tables fields and settings.
- Using pivot charts to visualize pivot tables data.

Data Analysis Tools
- Using the Analysis toolpak for Statistical analysis.
- Descriptive Statics (mean, median, standard , deviation).
- Regression analysis and hypothesis testing.

Advanced Data Manipulation
- Text-to-Columns and Flash Fill.
- Using Power Query for data extraction, transformation, and loading (ETL).
- Advanced filtering and sorting techniques.

Phase 4 - Real World Application

Case Studies and Projects

- Working on real-world datasets.
- Conducting exploratory data analysis (EDA).
- Presenting data findings using Excel dashboards.

Data Reporting

- Creating Professional reports.
- Using Excel Templates for standard reports.
- Exporting and sharing Excel reports.

Integration with other Tools

- Importing data from external sources (CSV, databases, web).
- Using Excel with Power BI for advanced analytics.
- Integrating Excel with other office Tools (Word, PowerPoint).