

# MICROSOFT EXCEL & VBA

Master Excel and VBA for Automation & Data Analysis



**Diverse Tech Topics** 

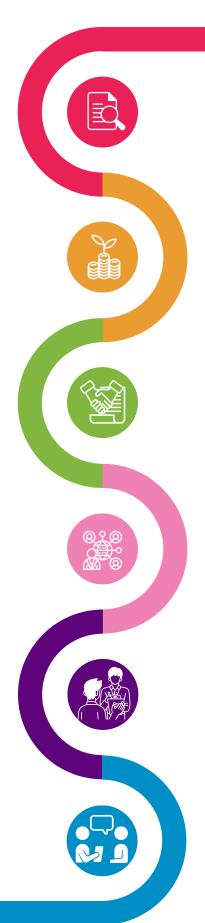
- Database SOL
- Microsoft Excel
- VBA (Macros)

**ENROLL NOW** 

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# PROGRAM HIGHLIGHTS





## Comprehensive Curriculum

Covers Excel essentials, formulas, VBA, automation, dashboards, and reporting for productivity.

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#### Learning Notes for Each Session

Session-wise learning notes provide structured summaries of key concepts, tools, and techniques for efficient review and retention.



## Advanced Concepts & Tools with Collaborative Environment

Gain expertise in advanced concepts via interactive, collaborative, and practical learning sessions



#### Hands-On Projects with Expert Instructors

Real-time projects with in-depth training on Excel, VBA, automation, dashboards, and reporting using customized datasets.



#### **Mock Interviews & Resume Preparation**

We take mock interviews and provide you feedback which helps you how to prepare for real Interviews also we help you in resume preparation based on your skills and experience.



#### 1:1 Meeting with our experts

You can have 1:1 meeting to discuss your career path and guidance on how to prepare your resume and job placements.

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#### **INTRODUCTION TO EXCEL**

- Short Keys
- Formatting (Applying Borders, Colors and Font styles)
- Conversion of Formats
- Merging and Wrapping the text
- Conditional Formatting
- Format as Table
- Inserting and deletion of Rows,
   Columns and Sheets
- Row height and Column width Formulae based
- Conditional Formatting

## PROOFING, COMMENTS AND CHANGES

- Inserting Hyperlinks
- Linking sheets, Cells,
   Workbook, Range and Mail
- Header-Footer, Word Art and Signature Line
- Inserting Objects
- Protect Sheet
- Protect Workbook
- Hiding Formulas
- Sharing Workbook
- Track Changes (Highlight, Accept and Reject Changes)
- Inserting and Editing Comments

#### **TABLES, ILLUSTRATIONS AND CHARTS**

- Hide and Unhide of Rows, Columns and Sheet Protecting sheet and Workbook
- Move or Copy, Rename sheet and Tab Color Filling series of Numbers and Dates Sorting and Filtering Pivot Tables
- Usage of Formulas in Pivot Tables
- Inserting pictures, Clip art, Text box, Shapes and Smart Art Usage of Charts (Column, Pie, Bar, Line) Usage of Dynamic ranges in Charts

## PAGE SETUP, SCALE TO FIT AND ARRANGE

- Inserting Comments and Spell check
- Freeze Panes (Rows and Columns)
- Save workspace, Switch windows and Split window
- Arranging the window (Vertically and Horizontally) Page Layout, Gridlines and Formula bar Paper margins, Gridlines and Paper size
- Page breaks, Applying background and Print titles Row repeat at top and Print preview

## CONNECTIONS AND DATA TOOLS

- Data Importing (From Access, Web and Text)
- Other Sources (SQL server, XML)
- Advance Sorting and Filtering
- · Text to Columns
- Removing Duplicates
- Data Validation
- List box, Formula based restrictions
- Customization of error alert and Input box
- Types of Alerts (Stop, Warning and information)
- Highlighting the Invalid data

#### **DATA TOOLS OUTLINE**

- Data Consolidation
- Scenario Manager
- Goal Seek
- Data Table
- Group and Ungroup
- · Adding subtotals to the list
- Defining name to the range
- Name manger editing
- Trace precedents/Trace Dependents
- Evaluate Formulas

#### **TEXT, ARITHMETICAL FUNCTIONS**

- UPPER, LOWER, PROPER, LEN, LEFT, RIGHT, MID, FIND, TRIM, CLEAN, CHAR, CODE, EXACT, REPT, REPLACE, SEARCH, CONCATENATE, SUBSTITUTE, VALUE and TEXT.
- ABS, ROUND, SUM, SUMIF, SUMIFS, SUMPRODUCT, SUBTOTAL and RANDBETWEEN
- Activities based on the above functions

#### **DATE & TIME AND LOGICAL FUNCTIONS**

- DATEDIF, DATE, TODAY, NOW, WEEKDAY, MONTH, YEAR, YEARFRAC, NETWORKDAYS, DAYS360, MINUTE, HOUR, SECOND, WEEKNUM, EDATE and EOMONTH.
- IF, AND, OR, NOT, TRUE, FALSE, IFERROR and Nested Functions. Activities based on the above functions.

#### STATISTICAL AND INFORMATION FUNCTIONS

- AVERAGE, AVERAGEIF, AVERAGEIFS, COUNT, COUNTA,
- COUNTBLANK, COUNTIF, COUNTIFS, LARGE, SMALL, MAX, MIN, RANK, ROWS, ROW, COLUMN and COLUMNS
- ISBLANK, ISERROR, ISNUMBER, ISTEXT and ISNA Activities based on the above functions



#### **LOOKUP AND REFERENCES**

- VLOOKUP, HLOOKUP, INDEX, MATCH, OFFSET, CHOOSE and INDIRECT.
- VLOOKUP with MATCH, IFERROR, WILDCARD and CHOOSE.
- Combination of Formulas
- Array Formulas
- VLOOKUP and COLUMN
- VLOOKUP with IF and VLOOKUP with AND Activities based on the above functions

#### **ACTIVITIES**

- SUM and CHOOSE
- Sorting the data using formula
- Multiple VLOOKUP
- Multiple INDEX
- Leave Tracker using conditional formatting
- Using formula in conditional formatting to highlight second repeated value

## POWER QUERY

- Creating Front end Tables
- Data Cleansing
- Data Transformation
- Merge Queries
- Append Queries
- Creating the columns
- Advanced Query Editor
- Scenarios Summarizing of Excel



#### **INTRODUCTION TO SQL**

- Flat Files vs RDBMS (Why SQL over Excel/CSV)
- Introduction to Structured Query Language
- Importance of SQL in Data Analysis & BI
- Data Types (INT, VARCHAR, DATE, FLOAT, etc.)
- Tables, Attributes, and Records
- Installation & Configuration of SQL Server / PostgreSQL / MySQL

#### **CLAUSES, OPERATORS & FILTERS**

- WHERE, GROUP BY, HAVING, ORDER BY, TOP / LIMIT
- Logical Operators: AND, OR, NOT
- Comparison Operators: =, <>, >, <, >=, <=
- Range Filters: BETWEEN, IN, IS NULL, LIKE
- Wildcards in LIKE: %, \_
- DISTINCT, CASE, COALESCE, NULLIF
- Set Operators: UNION, UNION ALL, INTERSECT, EXCEPT

#### **FUNCTIONS IN SQL**

#### **Aggregate Functions**

- SUM(), AVG(), MIN(), MAX(), COUNT()
  String Functions
- LEN(), UPPER(), LOWER(), LTRIM(), RTRIM(), SUBSTRING(), REPLACE(), CHARINDEX()

#### **Date and Time Functions**

 GETDATE(), DATEADD(), DATEDIFF(), YEAR(), MONTH(), DAY(), FORMAT()

#### **Conversion Functions**

• CAST(), CONVERT()

#### **SQL COMMAND CATEGORIES**

#### **DDL - Data Definition Language**

• Create, Alter, Drop, Truncate

#### **DML - Data Manipulation Language**

- Insert, Update, Delete, Merge
   DQL Data Query Language
- Select and its variations

#### **TCL -Transaction Control Language**

- Commit, Rollback, Savepoint
   DCL Data Control Language
   (Optional for Analysts)
- Grant, Revoke

#### **SQL CONSTRAINTS**

- Primary Key
- Foreign Key
- Unique
- Not Null
- Default
- Check
- Composite Keys

#### **SUBQUERIES**

- Introduction to Subqueries
- Single-row and Multi-row Subqueries
- Correlated vs Non-Correlated Subqueries
- Scalar Subqueries in SELECT/WHERE

#### **JOINS IN SQL**



- Why Joins are Needed
- Inner Join
- Left Join
- Right Join
- Full Outer Join
- Cross Join
- Self Join
- Anti Join (NOT EXISTS, EXCEPT, LEFT JOIN WHERE NULL)
- Real-world Join Scenarios

### WINDOW & ANALYTICAL FUNCTIONS

- OVER() Clause
- PARTITION BY, ORDER BY inside window
- ROW\_NUMBER()
- RANK(), DENSE\_RANK()
- NTILE()
- LEAD(), LAG()
- Running Totals, Moving Averages

## DATA MODELING & BEST PRACTICES

- Star vs Snowflake Schema
- Fact and Dimension Tables
- Surrogate Keys and Natural Keys
- Normalization & Denormalization
- Naming Conventions and Standards

#### **VIEWS AND INDEXES**

#### **Views**

- Creating and Using Views
- Updatable vs Non-Updatable Views
- Materialized Views (if supported)

#### **Indexes**

- Clustered vs Non-Clustered
- Composite Index
- When and Why to Use Indexes
- Index Impact on Performance

## STORED PROCEDURES AND TRIGGERS

#### **Stored Procedures**

- CREATE, EXEC, Parameters
- Use in Data Pipelines / Reporting
- Pros and Best Practices

#### **Triggers**

- After INSERT/UPDATE/DELETE
- Use Cases in Auditing or Data Validations

## COMMON TABLE EXPRESSIONS (CTES)

- Syntax and Structure
- Recursive CTEs
- CTE vs Subquery Performance
- Multi-CTE with Joins and Aggregations

## ADVANCED & ANALYTICAL USE CASES

- Using SQL for KPI Analysis
- Cohort Analysis
- Funnel Analysis
- Customer Segmentation
   Queries
- Market Basket Analysis (via Joins/Subqueries)
- Error Handling using TRY...CATCH (SQL Server)

## REAL-WORLD REPORTING & ANALYSIS TASKS

- Monthly, Quarterly, Yearly Trends
- YoY, MoM Growth Analysis
- Top N/Bottom N Products or Regions
- Contribution % Analysis (Subtotals)
- Data Cleansing with SQL
- SQL for Power BI/Tableau Backends

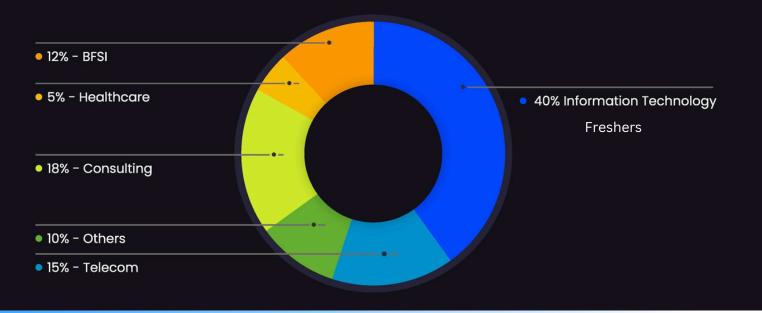




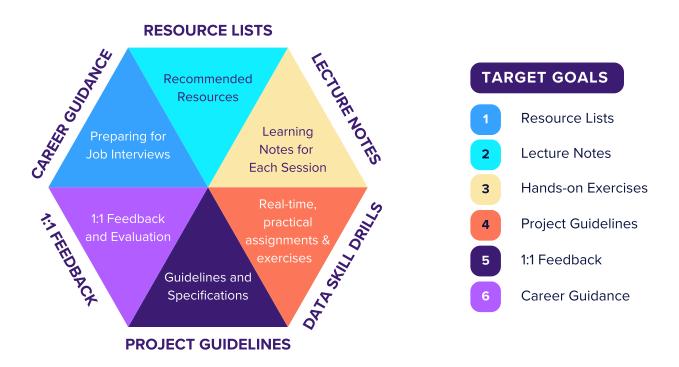
#### Meet the **Batch**



#### **Industries Our Learners Come From**



#### **WHAT YOU ACHIVE**



We are pioneers in providing trainings by certified Instructors who are highly qualified with decades of experience in the subject matter. Flair Technologies was expertise in providing quality Industry Oriented Training with Interview Preparation and Placement Assistance.

#### **GOALS ACHIVED**

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## **FLAIR TECHNOLOGIES**

FLALR TECHNOLOGIES was founded in 2014 With the mission to provide high quality software Trainings. Despite facing challenges due to full-time commitments, our enthusiasm for teaching never waned.

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