Flair
TECHNOLOGIES

DATA ANALYTICS

Learn Data Today
Lead Tomorrow's World

Diverse Tech Topics

- Database - SQL
- Microsoft Excel
- Microsoft Power BI
- Tableau
- Alteryx
- Python
- Soft Skills

ENROLL NOW

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PROGRAM HIGHLIGHTS

Flair TECHNOLOGIES

Comprehensive Curriculum

01

Covers SQL, Python, Excel, Power BI, Tableau, and Alteryx for data-driven analysis.

Learning Notes for Each Session

02

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

Advanced Concepts & Tools with Collaborative Environment

03

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

Hands-On Projects with Expert Instructors

04

Real-time projects with in-depth training on SQL, Power BI, Tableau, and Alteryx using customized datasets.

Mock Interviews & Resume Preparation

05

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

06

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

DATA ANALYTICS COURSE OUTLINE - MICROSOFT EXCEL

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

Excel

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

Excel

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

SUMMARIZING OF EXCEL

- Activities based on Real Time
- Scenarios Summarizing Of Excel

DATA ANALYTICS - SQL OUTLINE

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

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

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

SUBQUERIES

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

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()

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

SQL

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

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CONFIGURATION & CONNECTIONS

- Introduction of Power BI
- Installation Steps
- Power BI Working Architecture
- Connecting to Different Databases
- Comparison with other BI Tools
- Direct Vs Import Connections.

VISUALIZATIONS

- Tiles, Page, Report, Dashboard
- Different types of charts & Usage
- Create visuals
- Format visuals
- Custom Visuals from the Gallery
- Format Page

COMPONENTS

- Filters
- Interactions
- Groups
- Hierarchy
- Drill up and Drill down
- Drill through
- Parameters

POWER QUERY

- Creating Front end Tables
- Data Cleansing (Replace, Trim, Clean, Split Columns, Merge Columns)
- Data Transformation (Pivot, Unpivot, Transpose and group by)
- Merge Queries, Append Queries
- Creating the columns
- Applied Steps maintenance (Advanced Query Editor)

Power BI

POWER PIVOT

- Dimension Tables
- Fact Tables
- Cardinality Relationships
- Star Schema Creation
- Active Relationship & Inactive Relationships

NAVIGATIONS

- Page Navigations
- Book Marks
- Sync Slicers
- Custom Tooltips
- Q&A

DAX

- Create Column
- Create Measure
- Date and time functions
- Filter functions
- Logical functions
- Aggregate functions
- Text functions
- Variable usage in DAX
- Role based Security

SERVICE

- Power BI License Types
- Workspace Creation
- Report Publish
- Gateway Installation & Configuration
- Schedule Refresh
- Sharing Reports & Providing the access to Business Users
- Dashboard Creation

DATA ANALYTICS - PYTHON OUTLINE

PYTHON SETUP & GETTING STARTED

- Installing Jupyter / VS Code
- Introduction to Python in data workflows
- Working in Jupyter Notebooks: Cells, Markdown, Shortcuts
- Python file types: .ipynb, .py
- Best practices for writing readable, clean analysis code

WORKING WITH DATA FILES

- Reading/writing CSV, Excel, and JSON files
- File paths and directories using os and pathlib
- Handling encoding issues and bad headers
- Reading large files in chunks
- File clean-up automation

DATA AGGREGATION & GROUPING

- Using .groupby() for summaries
- Multiple aggregations using .agg()
- Counting unique values
- Row-wise calculations
- Calculating percentages within groups
- Creating pivot tables with .pivot_table()
- Crosstab analysis

MERGING & COMBINING DATA

- pd.merge() - inner, left, right, outer joins
- pd.concat() - appending rows/columns
- Joining on index vs column
- Handling column conflicts during merge
- Use case: Merging sales with region/category/master data

PYTHON ESSENTIALS FOR ANALYSTS

- Variables, Data Types (int, float, str, bool, list, tuple, dict, set)
- Type conversion, type checking
- Control Flow: if, elif, else, nested conditions
- Loops: for, while, break, continue, range()
- Functions, Lambda expressions
- Basic Exception Handling: try, except, finally

CORE PANDAS FOR DATA ANALYSIS

DataFrame Basics

- Creating DataFrames (from CSV, dicts, lists)
- Indexing & slicing: .loc[], .iloc[], []
- Adding/removing columns/rows
- Renaming columns, setting index
- Basic data inspection: .head( ), .info( ), .describe( )

Data Cleaning

- Handling missing data: .isnull(), .fillna(), .dropna()
- Removing duplicates
- Replacing and mapping values
- String operations: .str.lower(), .str.replace(), .str.extract()

Data Transformation

- Creating new calculated columns
- Applying functions row-wise (.apply())
- Binning data using cut() and qcut()
- Using map(), replace(), and np.where() for classification logic
- Changing column data types with .astype()

DATE AND TIME HANDLING

- Parsing date columns with pd.to_datetime()
- Extracting year, month, day, weekday
- Filtering by date ranges
- Creating date features (e.g., quarter, month name)
- Time-based grouping (monthly, weekly, daily)

EXPLORATORY DATA ANALYSIS (EDA)

- Identifying outliers using IQR
- Frequency counts, value distributions
- Feature correlation analysis (.corr())
- Skewness, kurtosis, and data shape
- Detecting patterns before visualization

VISUALIZATION WITH MATPLOTLIB & SEABORN

Matplotlib Basics

- Bar charts, line charts, pie charts
- Customizing axes, titles, legends
- Saving plots as images

Seaborn Essentials

- Countplot, barplot, boxplot, histplot, heatmap
- Distribution & scatter plots
- Grouped plots with hue and col
- Plot styling with themes and palettes

NUMPY FOR NUMERIC OPERATIONS

- Creating arrays, array indexing
- Element-wise operations
- Aggregation functions (sum, mean, std)
- Boolean indexing
- Reshaping and flattening
- Use in performance optimization with Pandas

REAL-WORLD REPORTING TASKS

- Exporting cleaned data to Excel
- Writing multiple sheets to Excel using ExcelWriter
- Adding dynamic filenames with timestamps
- Generating summary tables
- Automating a simple monthly reporting task

FLAIR TECHNOLOGIES - DATA ANALYTICS

PROGRAM DURATION & FORMATE

180 SESSIONS | THREE MONTHS | MON TO SAT (DAILY 2 HOURS) | OFFLINE

PROGRAM FEE

INR: 39,999 /-

ELIGIBILITY

Freshers any degree / IT & Non IT Professionals

TABLEAU OUTLINE

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INTRODUCTION TO BUSINESS INTELLIGENCE

- Overview of BI
- Overview of Tableau Environment
- Putting it all together

DATA CONNECTIONS

- Getting to data from Tableau Desktop
- Learning the basics of visualizing data
- Visualizing business needs

TRANSFORMING DATA

- Why transform data?
- Data Blends
- Data Joins

CALCULATIONS IN TABLEAU

- Data Aggregates
- Calculation Wizards
- Table Calculations
- Customized Calculations

ADVANCED CALCULATIONS

- Strings
- Floor and Ceiling
- Dates

PARAMETERS AND FILTERS

- Basics of Filtering
- Basics of Parameters
- Putting it all together

FORMATTING

- Colours
- Custom Colours
- Highlighters

+ableau

SORTING

- Ascending and Descending Order manually
- Computes and Sorting
- Nested Sorting

SERVER DEPLOYMENT

- What is Tableau Server?
- Install / Configure.
- Working with Users
- Working with Projects
- Working with Groups
- Publishing the reports and data sources in server.
- Create Sites, Projects, Users and Groups.
- Securing Projects
- Assigning the permissions and licences to the users.
- Server performance improvement and Performance recording.

GROUPING TECHNIQUES

- Sets
- Combining Fields

MAP BASICS

- Strings
- Floor and Ceiling
- Dates

VISUALIZATIONS

- Understanding
- Text Charts
- Visual Charts
- Time Charts
- Trend Charts

INTRODUCTION TO DASHBOARDS

- Designing
- Actions
- Stories

DATA ANALYTICS - ALTERYX OUTLINE

INTRODUCTION TO ALTERYX

- What is ETL & ELT in Modern Data Pipelines
- Why Alteryx – Role in Analytics & Automation
- Understanding Alteryx Designer
- Designer Interface Tour (Canvas, Configuration Pane, Results)
- Workflow & User Settings
- Installation & License Configuration
- Alteryx File Types: .yxmd, .yxdb, .yxmc, .yxwz

INPUT & OUTPUT TOOLS

- Input Data (Local, Database, Cloud, APIs)
- Output Data (File formats, append/overwrite, Excel tab naming)
- Browse Tool (Inspection & Debugging)
- Manual Input
- Directory, Dynamic Input, Dynamic Rename
- Date & Time Formats and Parsing

DATA PREPARATION TOOLS

- Data Cleansing
- Auto Field
- Select (Field renaming, type conversion, metadata)
- Convert Date
- Record ID
- Formula (Basic to Nested Logic)
- Multi-Field Formula
- Multi-Row Formula (Lag/Lead calculations like SQL)
- Generate Rows (for looping/date expansion)

FILTERING, SORTING & SAMPLING

- Sort
- Filter (Basic and Custom logic)
- Sample (First N, Every Nth, Random %)
- Unique
- Tile Tool (for binning/segmentation)
- Conditional Row Filtering (via Formula + Filter)

JOINS AND DATA BLENDING

- Join Tool (Inner/Left/Right Joins)
- Union Tool (Auto Config by Name/Position)
- Append Fields
- Find and Replace
- Fuzzy Match (Name/Address matching)
- Join Multiple Tool
- Make Group Tool (used in Fuzzy Matching)

DATA TRANSFORMATIONS

- Summarize Tool (Group By, Sum, Min/Max, Concatenate, Count)
- Cross Tab (Pivoting)
- Transpose (Unpivoting)
- Text to Columns
- RegEx Tool (Extract, Replace, Match)
- Field Info Tool (Metadata Exploration)

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DATA ENGINEERING TOOLS (IMPORTANT ADDITIONS)

- In-Database Tools (Connect In-DB, Data Stream In/Out, In-DB Filter, Join, Select)
- SQL Scripting Tool (for push-down optimization)
- Cache Dataset (for performance tuning)
- Block Until Done (for sequential logic)
- Run Command Tool (trigger external scripts or shell commands)
- Download Tool (API/REST integration)
- Publish to Database (Bulk Load)
- Data Connectors (Azure, AWS, Snowflake, Salesforce, SharePoint)

MACROS (REUSABLE LOGIC)

- What is a Macro in Alteryx
- Standard Macro – Reusable logic
- Batch Macro – Runs once per control group
- Iterative Macro – Loops until condition is met
- Interface Tools: Macro Input/Output, Drop Down, Check Box, Control Parameter
- Macro Output Testing and Debugging
- Storing Macros in Gallery or Shared Repos

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ANALYTIC APPS

- What is an Analytic App
- Use Cases (Parameter-driven Reports, User-defined Filters)
- Interface Tools (Text Box, Radio Button, List Box, File Browse)
- Creating, Saving, and Running Apps (.yxwz)
- App chaining and validation
- Publishing to Alteryx Server/Gallery

REPORTING TOOLS (ALTERYX DESIGNER REPORTS)

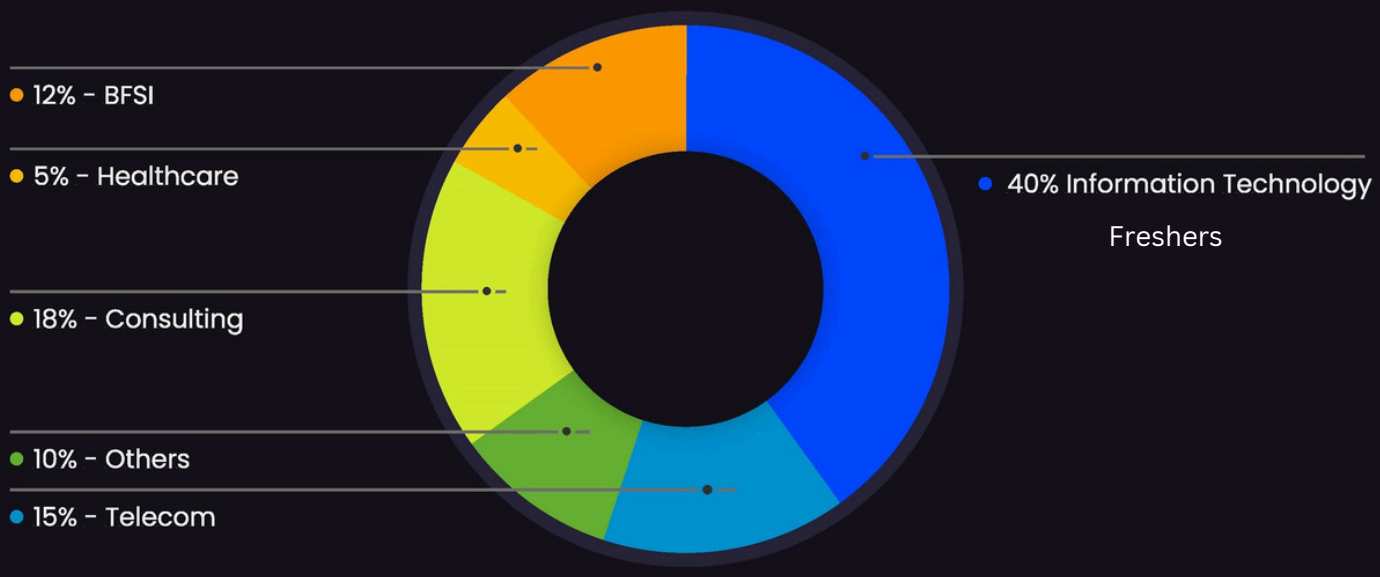
- Layout Tool
- Table Tool (Tabular formatting)
- Report Text Tool
- Charting Tool (Basic bar, pie, line charts)
- Image Tool
- Render Tool (to PDF, Excel, HTML)
- Email Tool (attach and send reports via SMTP)
- Report Footer/Header

Flair TECHNOLOGIES

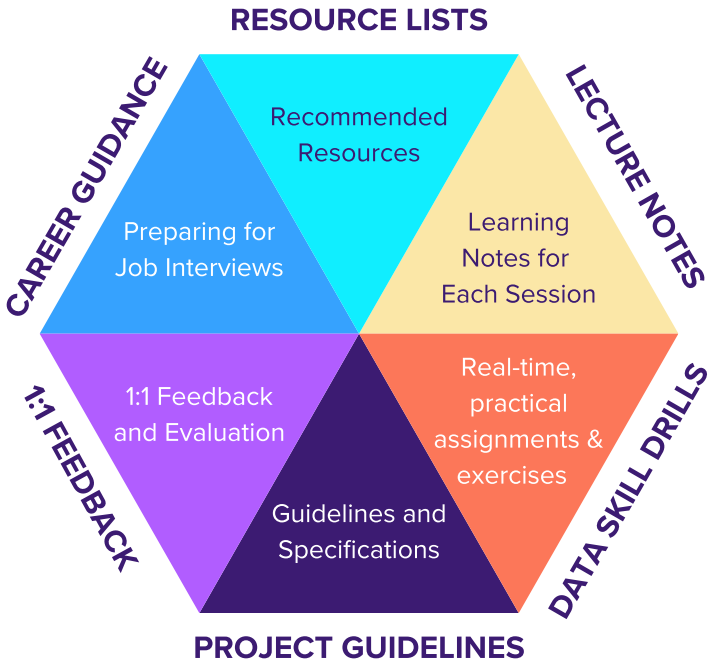
Meet the Batch

Flair TECHNOLOGIES

Industries Our Learners Come From



WHAT YOU ACHIVE



TARGET GOALS

1. Resource Lists
2. Lecture Notes
3. Hands-on Exercises
4. Project Guidelines
5. 1:1 Feedback
6. Career Guidance

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

1. Expertise in Data Analytics
2. Ready for Interview
3. Placement in MNC

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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Our Location
Bengaluru, India