# Data Visualization using Excel & Power BI

## Industry relevant job-oriented course to get you hired!

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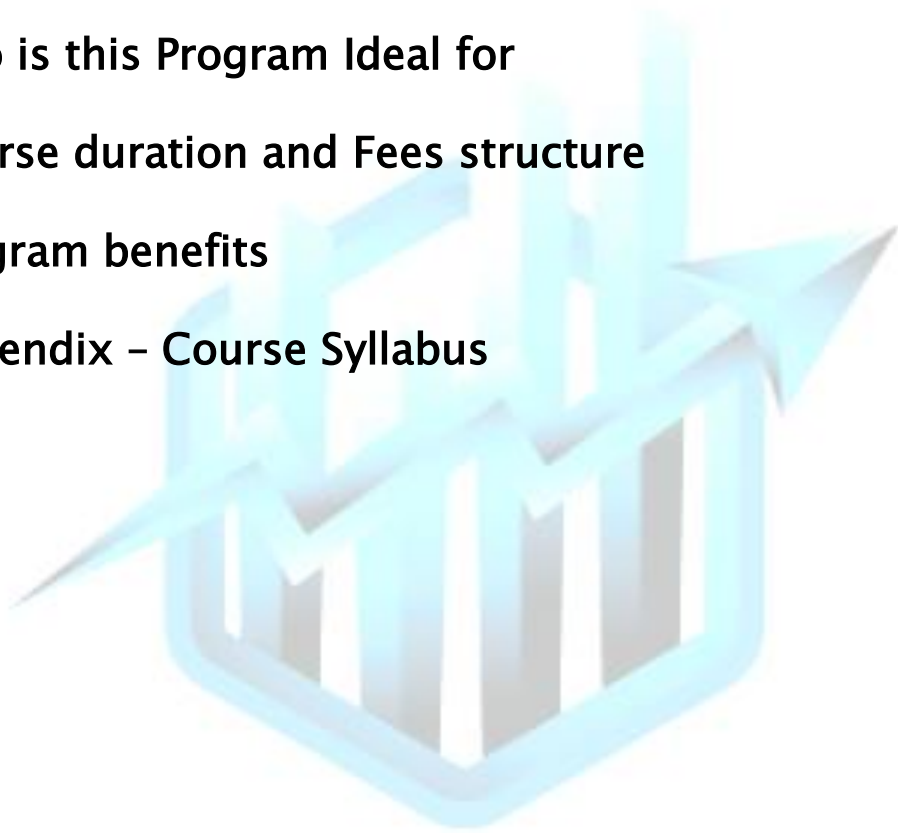
# About TechSense Academy

TechSense Academy, founded in 2021, emerged with a vision to equip individuals with essential skills for thriving in the digital era. Recognizing the pivotal role of data analytics and digital marketing in today's world, TechSense embarked on a journey to deliver impactful education. What sets us apart is our dedication to offering more than just certification courses; we provide comprehensive learning experiences that empower our students to excel in their careers.

Our curriculum is designed to be practical and industry-focused, ensuring that students gain hands-on experience and relevant skills that are directly applicable in real-world scenarios. At TechSense Academy, we believe in not just imparting knowledge but also fostering critical thinking and problem-solving abilities.

Moreover, TechSense Academy goes beyond traditional educational models by offering internship programs. These programs provide students with invaluable opportunities to gain practical experience, network with professionals, and further enhance their skills in real work environments. By integrating internships into our educational framework, we bridge the gap between academic learning and professional practice, preparing our students for success in their chosen fields.

In essence, TechSense Academy is more than just a certification course provider; we are a dynamic educational institution committed to empowering individuals with the skills and experiences needed to thrive in the digital age. Join us on this journey of learning, growth, and opportunity.

About the Course:

# Data Visualization using Excel and Power BI

Our Data Visualization using Excel and Power BI course is tailored for absolute beginners with no prior programming background. The program commences with a foundational block of Analytics, establishing the essential groundwork for quantitative analytical thinking and basic analytical techniques. It then delves deeper into data manipulation, analytics, and visualization using Excel and Power BI.

## Topics and Tools Covered

1.  **Data Visualization using Excel**: Excel function, Charts & Dashboard
2.  **Data Visualization using Power BI**: Introduction, Data Preparation and analysis, basic to advanced DAX, interactive visuals

# Training Methodology

## ENGAGE REMOTELY WITH LIVE ONLINE CLASSES

Our training methodology blends the convenience of remote learning with the interactivity of live online classes, offering a dynamic educational experience tailored to your needs. Through our innovative approach, participants can access high-quality training sessions from anywhere in the world, fostering collaboration and engagement in real time.

## Key Features:

**Remote Accessibility**: Participants can join training sessions from the comfort of their own space, eliminating the need for travel and allowing for flexibility in scheduling.

**Live Interaction:** Our live online classes enable real-time interaction with instructors and peers, promoting active engagement and discussion. Personalized Learning: Participants receive personalized attention and support from instructors, ensuring that learning objectives are met effectively.

**Cutting-edge Technology:** We leverage state-of-the-art technology to deliver seamless online experiences, incorporating interactive tools and multimedia resources.

**Practical Application:** Our training methodology emphasizes practical, hands-on learning experiences, enabling participants to apply newfound knowledge and skills immediately.

With our remote training methodology featuring live online classes, you can elevate your learning experience and achieve your professional development goals with ease.

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# Who is this Program Ideal for ?

This course is tailored to accommodate graduates from any discipline, encompassing both freshers from a variety of fields and seasoned professionals from diverse backgrounds, whether programming-related or not. It welcomes individuals with an analytical mindset, regardless of their educational background. Specifically, this program is suitable for:

- **IT professionals** seeking to deepen their understanding of data analytics.

- **Banking and finance professionals** aiming to enhance their decision-making capabilities through data-driven insights.

- **Marketing managers** interested in leveraging data analytics to refine their marketing strategies and improve ROI.

- **Supply chain network managers** looking to optimize operations and streamline processes using data-driven approaches.

- **Engineers** seeking to apply data analytics techniques to enhance product development and innovation.

- **Analysts** keen on expanding their skill set and staying updated with the latest trends in data analytics.

- **Consultants** who wish to add value to their client engagements by offering data-driven solutions.

- **Domain experts** who recognize the importance of data analytics in their respective fields and seek to harness its potential for organizational success.

# Course duration and Fees

**Training duration:**
- 2 Months : 48 hours live training
- Weekends Classes ( Saturday, Sunday)

**Training Mode :**
- Online (Live Interactive)

**Training Cost:**
- INR 14000 + GST

**Component:**
- Live sessions
- 1:1 doubt solving
- Case Studies
- Resume Preparation
- Interview Preparation
- Internship Programme in leading MNC's and Start-ups
- Industry relevant Certification
- 100% Placement Assistance

# Program Benefits

- **Proficiency in Advanced Excel**: Master advanced Excel techniques to manipulate, analyze, and visualize data effectively, enabling them to create dynamic reports, dashboards, and models.

- **Expertise in Power BI**: Acquire advanced skills in Power BI for data visualization, dashboard creation, and interactive reporting, empowering them to transform raw data into actionable insights.

- **Data Analysis and Interpretation**: Learn to conduct comprehensive data analysis using advanced Excel and Power BI enabling participants to derive meaningful insights, identify trends, and make informed decisions.

- **Problem-Solving Skills:** Enhance problem-solving abilities by applying data analytics techniques to real-world scenarios, including data-driven decision-making, forecasting, and optimization.

- **Project Management**: Develop project management skills through hands-on projects and capstone assignments, allowing participants to effectively plan, execute, and communicate data analytics projects from inception to completion.

# Course Syllabus

## Data Visualization and Analytics using MS Excel.

**Introduction to Excel for Business and Data Analysis**

Step into the realm of efficient data management with our Excel course, tailor-made to unlock potential in business and data analysis. This course equips you with a robust comprehension of Excel, the pivotal tool for spreadsheet management and analytical insights in the modern business landscape.

**Course Modules Overview**

- **Module 1: Introduction to Excel**

  ○ **1.1 Overview of Excel Interface**
    - Ribbon
    - Quick Access Toolbar
    - Worksheet Tabs
    - Name Box
    - Formula Bar
    - Cell Reference

  ○ **1.2 Navigating Excel Workbook**
    - Selecting Cells, Rows and Columns
    - Keyboard shortcuts

- **Module 2: Basic Excel Functions and Formulas**

  - **2.1 Understanding Formulas and Functions**

    - Basic Arithmetic Formulas
    - Using Functions in Excel

  - **2.2 Common Functions for Data Analysis**

    - SUM, AVERAGE, MAX, MIN
    - COUNT, COUNTA, COUNTIF, SUMIF, SUMIFS, COUNTIFS
    - CONCATENATE, TEXT, LEFT, RIGHT, MID, UPPER, LOWER, TRIM, FIND
    - DATE, YEAR, MONTH, EOMONTH, TODAY

- **Module 3: Data Management and Formatting**

  - **3.1 Managing Data in Excel**

    - Sorting Data
    - Filtering Data
    - Advance Filter

  - **3.2 Formatting Cells and Worksheets**

    - Cell Formatting (Font, Alignment, Borders, Fill)
    - Number Formatting
    - Conditional Formatting

- **Module 4: Advanced Excel Functions and Formulas**

  - **4.1 Logical Functions**

    - IF, AND, OR, NOT

- Nested IF Statements
- IFERROR, IFNA

○ **4.2 Lookup and Reference Functions**

- VLOOKUP, HLOOKUP
- INDEX, MATCH, OFFSET

• **Module 5: Data Analysis with PivotTables**

○ **5.1 Introduction to PivotTables**

- What is Pivot Table
- Advantage of Pivot Table
- Creating PivotTables
- Working with PivotTable Layouts

○ **5.2 Analysing Data with PivotTables**

- Filtering and Sorting PivotTables
- Field Settings
- Pivot Table Design (Grand Total, Subtotal, Report Layout)
- Refresh Pivot Table Data

○ **5.3 Advance Pivot Table Feature**

- Calculated Fields and Items
- PivotTable Slicers & Timelines
- Grouping Ungrouping Data

• **Module 6: Data Visualization with Charts**

○ **6.1 Creating Basic Charts**

- Column Charts, Line Charts, Pie Charts
- Bar Charts, Area Charts

- ° **6.2 Customizing Charts**

  - Adding Titles, Labels, and Legends
  - Formatting Chart Elements

- ° **6.3 Pivot Charts**

- **Module 7: Advanced Excel Features**

  - ° **7.1 Data Validation**

    - Setting Data Validation Rules
    - Input and Error Messages

  - ° **7.2 Miscellaneous**

    - Remove Duplicates
    - Name Range, Dynamic Name Range
    - Worksheet and Workbook Protection
    - Form Control from developer

- **Module  8: Additional Tips, Tricks and Shortcuts**

# Data Visualization using Power BI

## Introduction to the Course

- **What is Data Visualization and Business Intelligence?** Understand the importance of data in making informed decisions.

- **Market Tools for Data Visualization**: Explore different tools available and their applications.

- **Introduction to MS Power BI**: Discover why Power BI leads the market in data visualization.

- **Data Visualization: Excel vs. Power BI**: Learn the advantages of Power BI over traditional tools.

- **Setting Expectations**: Get ready to embark on a journey that bridges the gap between data and decision-making.

## Course Modules Overview

- **Module 1: Getting Started**

  - Install MS Power BI and navigate its interface
  - Understand different data sources and how to load data

- **Module 2: Data Processing**

  - Use the Query Editor for data cleaning and transformation

- Learn data modelling concepts and how to create relationships between tables

- **Module 3: DAX Fundamentals**

  - Introduction to DAX (Data Analysis Expressions)
  - Master basic DAX functions and calculations

- **Module 4: Visualizations**

  - Learn about different types of visualizations
  - Create and customize visuals for interactive reports

- **Module 5: Advanced DAX**

  - Advanced DAX functions and time intelligence
  - Explore calculated columns, measures, and data analysis over time

- **Module 6: Advanced Analytics**

  - Create custom visuals and use Python and R in Power BI
  - Dive into AI visuals and advanced analytics

- **Module 7: Power BI Service**

  - Introduction to Power BI Service, gateways, and dataflows
  - Learn about reports, dashboards, sharing, and collaboration tools