

# CERTIFIED DATA & BUSINESS ANALYST (CDBA)



**CFI** EDUCATION



## CORPORATE FINANCE INSTITUTE™ (CFI)

YOUR JOURNEY IN FINANCE MADE EASIER

# CERTIFIED DATA & BUSINESS ANALYST (CDBA)

## ABOUT US



5,000+ Professionals Trained



10 Years of History



150+ batches



15,000+ hours of training



Founded in 2013

## WHO WE ARE

Corporate Finance Institute™ (aka “CFI Education” or “CFI”) is a team of passionate educators with more than a decade of experience in the industry, bringing real-life business problems to the classroom. CFI offers extremely practical program training like Financial Modeling, Investment Banking, and CFA Prep program with placement assistance and its an India based organization.”

## USP

Our USP is to apply real-life skills to the classroom making all our finance training extremely effective to our students / candidates. Post completion of the program, candidates were able to crack interviews / placed with big MNCs including RESEARCH AND ANALYTICS companies, boutique investment banks, advisory firms, credit rating agencies, and financial services companies.

CFI – India’s Leading Finance and Analytics Training Institute



# LEARNING ROADMAP



**LIVE INSTRUCTOR BASED TRAINING**



**EACH TOPIC COVERED PRACTICALLY**



**ASSIGNMENT ON EACH TOPIC**



**CAPSTONE PROJECTS**



**ASSESSMENT TEST**



**INTERVIEW PREPRATION**



**RESUME BUILDING & PLACEMENT  
SUPPORT**

## CERTIFIED DATA & BUSINESS ANALYST (CDBA)

CDBA is a 3-month highly interactive certification program which covers most sought-after data analysis tools like Power BI, MS Excel, SQL and Python along with statistical analysis for business decision making. After CDBA course completion, candidates would have comprehensive hands-on understanding in performing business analysis, data exploration and visualization, statistical analysis, and make data driven decision making.

### KEY LEARNING OBJECTIVES:

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#### Business Strategy Integration:

- Develop a profound understanding of how data analysis aligns with and enhances business strategy.
- Learn to identify key business challenges and opportunities that can be addressed through data-driven insights.

#### Data Exploration and Visualization:

- Master the art of data exploration to uncover patterns, trends, and anomalies.
- Utilize advanced visualization tools to communicate complex insights in a compelling and accessible manner.

#### Statistical Analysis for Decision-Making:

- Gain proficiency in statistical methods to derive meaningful conclusions from data.
- Learn how to apply statistical techniques to support strategic decision-making processes.

#### Data-Driven Decision-Making:

- Cultivate the ability to make informed decisions based on data analysis.
- Develop strategies for integrating data-driven insights into the decision-making processes of various organizational levels.

### WHO SHOULD ENROLL:

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- Graduate / Post-graduates, with a desire to become a business or data analyst
- Business professionals seeking to enhance their decision-making capabilities
- Data enthusiasts aiming to leverage their skills in a business context
- Aspiring analysts looking to enter the dynamic field of business and data analysis

## COURSE FORMAT:

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- Duration: 12 -15 weeks
- Format: Blended learning with a mix of live lectures, hands-on workshops, and real-world case studies
- Assessments: Practical assignments, quizzes, and a final project applying learned concepts to a business scenario.

## WHY CHOOSE BUSINESS AND DATA ANALYSIS MASTERY:

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### Practical Focus:

Hands-on experience with real-world datasets and case studies.



### Expert Instructors:

Learn from industry professionals with extensive experience in business and data analytics.



### Career Advancement:

Position yourself for career growth by acquiring skills in high demand across industries.

**Unlock the potential of data to drive business success. Enroll in the Business and Data Analysis Mastery course and transform your analytical skills into a strategic asset for your organization.**

# MS EXCEL – 8 HOURS

## WORKING WITH NAME RANGE

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- What does naming a cell range mean?
- Rules for naming cells and ranges
- Naming cell range(s) in a worksheet
- Navigating through workbooks using named ranges
- Creating named ranges automatically based on cell values

## NUMERIC/STATISTICAL FUNCTIONS/ LOOKUP FUNCTION

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- SUM, SUMIF, SUMIFS
- AVERAGE, AVERAGEIF, AVERAGEIFS
- COUNT, COUNTIF, COUNTA, COUNTBLANK
- MAX, MIN, Vlookup, Hlookup, Xlookup

## UNDERSTANDING REFERENCES

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- Understanding References
- Relative References
- Absolute References
- Mixed References
- Utilizing names for writing formulae

## FILTERING / SORTING

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- Filtering and Sorting, Custom Sort

# LOGICAL FUNCTIONS

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- If Function
- AND, OR Function
- Nested Functions

# CONDITIONAL FORMATTING

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- Highlight Cell Rules
- Data Bars
- Colour Scales
- Icon Sets
- Rule 1 to 6

# CREATING DROPDOWN LIST

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- Simple Dropdown List
- Conditional Dropdown List

# DATE & TIME FUNCTIONS

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- Today, Now
- Day, Month, Year
- Weekday, Network Day

# WORKING WITH PIVOT TABLES & CHARTS

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- Creating Pivot Table
- Exploring Table Design Tab
- Slicers
- Creating Chart
- Formatting Chart

# POWER BI – 24 HRS

## MODULE 1: UNDERSTANDING ANALYTICS & BUSINESS INTELLIGENCE (BI) CONCEPT

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This module will guide the candidate through the basics of Analytics. Learn about the Data & Analytics

- Data & Analytics
- Introduction to Business Intelligence
- Importance of Business Intelligence
- Overview of Self-Service BI

## MODULE 2: MICROSOFT POWER BI INTRODUCTION

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- Power BI Introduction and Overview
- Power BI Desktop – Installation
- Explain Power BI Desktop
- Power BI Screen Elements and Toolbars

## MODULE 3: CONNECTING POWER BI WITH DIFFERENT DATA SOURCE

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- Connect to CSV files in Power BI
- Connect to Excel in Power BI
- Connect to PDF in Power BI
- Connect to Web Page in Power BI

## MODULE 4: DATA CLEANING WITH POWER QUERY

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- Power Query Introduction
- Query Editor interface
- Column Transformations

- Combining Data: Append Query
- Combining Data: Merge Query
- Number, Date and Time Calculations
- Text Transformation
- Sorting & Filters Data
- Splitting & Merging Data
- Transforms Data
- Pivot and Unpivot Data
- Adding Columns
- M Built-in Function

## **MODULE 5: DATA MODELLING IN POWER BI**

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- What is a PowerPivot?
- What Is a Data Model?
- What is a Relationship?
- Introduction to DAX
- Detecting and Creating Relationships of Tables
- Understanding the Star Schema
- Creating Calculated Columns
- Creating Tables
- Creating Measure
- Row Context vs Set Context
- Working with DAX Functions
- Getting Data from Related Tables

## **MODULE 6: CREATING REPORT & VISUALIZATION TYPE IN POWER BI**

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- Create a New Power BI Report
- Report Editor in Power BI
- Add, Rename, Delete & Duplicate Page to Power BI Report

- Create a New Power BI Report
- Report Editor in Power BI
- Add, Rename, Delete & Duplicate Page to Power BI Report
- Save Report in Power BI
- Change how visuals interact in a report
- Open a Power BI in Reading View
- Page Display Setting in Power BI report
- Type of Visualization in Power BI Report
- Adding Visuals  
(Bar, Column, Line, Area, Ribbon, Pie, Scatter, Tree Map, Waterfall, Combo, Funnel, KPI, Radial Gauge, Doughnut Chart etc.)
- Data Categories, Geo-Data and Maps
- Creating and Working with Tables and Matrix Views
- Customizing Visuals by Field, Format & Analytic
- Filtering Visual, Page, All Pages
- Using Interactive Slicers – Dropdowns and Searches
- Number, Date, Text Slicers
- Applying Conditional Formats to Visualizations
- Drill Visualizations to see underlying Data
- Date Hierarchies
- Show Values as and Quick Measures
- Custom Visualization in Power BI
- Selection Pane
- Lock Objects
- Adding Graphics
- Bookmarks
- Spotlight
- Report Themes
- Using Security by Creating Role Based Views
- Insight – Explain Increase/Decrease
- Export Power BI Data to CSV

## MODULE 6: CREATING A POWER BI DASHBOARD

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- Dashboard vs Reports
- Creating a Power BI Dashboard
- Dashboard Tiles in Power BI
- Pin a Tiles to Power BI Dashboard from a report
- Power BI publisher in Excel
- Data alert in Power BI Service
- Add Image, Text box, Video or web code to your dashboard
- Tips for designing a great Power BI Dashboard
- Create Phone View of a Dashboard
- Power BI Q&A
- Quick Insights with Power BI

## MODULE 7: REFRESHING DATA

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- Configure schedule refresh data
- Refresh a dataset created from Power BI Desktop (Local)
- Refresh a dataset created from Power BI Desktop (Cloud)
- Disable privacy setting

**Tableau – Optional**

# SQL – 8-12 HRS

## MODULE 1: INTRODUCTION TO SQL AND RELATIONAL DATABASES

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- Relational database management systems (RDBMS)
- Comparison of SQL and Excel features and use cases

## MODULE 2: SQL BASICS

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- SQL syntax, keywords, and conventions
- Data types and operators (arithmetic, comparison, logical)
- SQL constraints (Primary/check/default/null....)
- SELECT statement, projection, and filtering data with WHERE aliases and expressions
- Sorting data with ORDER BY

## MODULE 3: WORKING WITH JOINS AND UNIONS

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- Different types of joins (INNER JOIN, LEFT JOIN, RIGHT JOIN, FULL JOIN, CROSS JOIN) ON, USING, and NATURAL keyword usage
- UNION and UNION ALL set operations

## MODULE 4: AGGREGATING DATA AND GROUP FUNCTIONS

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- GROUP BY clause and grouping sets
- HAVING clause for filtering aggregated results
- Aggregate functions: SUM, COUNT, AVG, MIN, MAX

## MODULE 5: ADVANCED SQL QUERIES

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- EXISTS and NOT EXISTS operators
- Window functions: RANK, DENSE\_RANK, ROW\_NUMBER, NTILE, etc.
- Index in SQL
- Nested Stored procedure

## **MODULE 6: SQL FOR DATA MANAGEMENT**

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- Data Manipulation Language (DML): INSERT, UPDATE, DELETE
- Transactions: BEGIN, COMMIT, ROLLBACK
- Optimization SQL Query
- Procedure/Function

## **MODULE 7: SQL FOR DATA ANALYSIS AND REPORTING**

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- Pivoting data: transforming rows to columns
- Unpivoting data: transforming columns to rows
- GROUP BY extensions (ROLLUP, CUBE, and GROUPING SETS)

## **STATISTICS IN MS EXCEL – 8 HRS**

- Discussion on Statistics concepts and theories
- Correlation, Var-Covar, Beta, Regression, Monte Carlo Simulation
- Statistical Formulas
- Data Analysis Tool Pack
- Correlation Matrix
- Multi Correlation
- R Squared
- Statistical Charts / Graph
- Slope / Intercept

# PYTHON – 48 HRS

## DATA ANALYSIS WITH PYTHON

### MODULE 1

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- Introduction
- Datatypes, Variables, and Operators
- String and its Associated Functions
- If-Else Statement

### MODULE 2

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- Regular Expressions
- Looping Statements
- Nested Loop
- Pattern-Based Problems

### MODULE 3

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- Data Structure in Python:
- List
- Tuple
- Dictionary
- Functions in Python
- Recursion
- Functions Return Statement
- Modules in Python

### MODULE 4

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- List Comprehension
- File Handling in Python:
- Reading, Writing, and Appending into Files

- Comparing Files
- Classes and Objects
- Inheritance and Polymorphism

## **MODULE 5**

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- Numpy for Creating Arrays
- Data Analysis Using Pandas
- Matplotlib for Graphical Representation

# **DATA ANALYSIS WITH PYTHON**

## **MODULE 1**

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### **Importing Datasets**

- Understanding the Domain
- Understanding the Dataset
- Python package for data science
- Importing and Exporting Data in Python
- Insights from Datasets

## **MODULE 2**

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### **Cleaning And Preparing The Data**

- Identify and Handle Missing Values
- Data Formatting
- Data Normalization

## **MODULE 3**

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### **Summarizing The Data Frame**

- Descriptive Statistics
- Basics of Grouping
- ANOVA
- Correlation

## **MODULE 4**

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### **Model Development**

- Simple and Multiple Linear Regression Model
- Evaluation Using Visualization
- Polynomial Regression and Pipelines
- R-squared
- MSE for In-Sample Evaluation
- Prediction and Decision Making

## **MODULE 5**

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### **Model Evaluation**

- Model Evaluation
- Over-fitting
- Under-fitting
- Model Selection
- Ridge Regression
- Grid Search

# DATA VISUALIZATION WITH PYTHON

## MODULE 1

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### Introduction To Visualization Tools

- Introduction to Data Visualization
- Introduction to Matplotlib
- Basic Plotting with Matplotlib Line Plots

## MODULE 2

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### Basic Visualization Tools

- Area Plots
- Histograms
- Bar Charts

## MODULE 3

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### Specialized Visualization Tools

- Pie Charts
- Box Plots
- Scatter Plots
- Bubble Plots

## MODULE 4

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### Advanced Visualization Tools

- Waffle Charts
- Word Clouds
- Seaborn and Regression Plots
- Waterfall Charts

# INTERVIEW PREP & MOCK INTERVIEW

- Soft Skills Training
- LinkedIn Profile update
- CV Samples to Follow.
- Mock Interviews

**After completing CDBA course, individuals will be well-equipped to pursue diverse and rewarding career paths across various industries. Here are some potential career directions for graduates of this course:**



## **DATA ANALYST:**

As a data analyst, you will play a crucial role in interpreting and analyzing data to help organizations make informed decisions. You'll work with data visualization tools, statistical techniques, and reporting frameworks.



## **BUSINESS ANALYST:**

Business analysts bridge the gap between business needs and technological solutions. With a strong understanding of both business strategy and data analysis, you can analyze processes, identify areas for improvement, and recommend data-driven solutions.



## **BUSINESS INTELLIGENCE ANALYST:**

Specializing in business intelligence, you'll focus on collecting, analyzing, and visualizing data to help businesses gain insights into their operations, customers, and market trends.



## **MARKET RESEARCH ANALYST:**

Leveraging your skills in data analysis, you can work as a market research analyst, helping companies understand market trends, consumer behavior, and competitive landscapes.



## **OPERATIONS ANALYST:**

Operations analysts use data to optimize business processes and improve efficiency. Your skills in data analysis can help organizations streamline operations and reduce costs.



## **FINANCIAL ANALYST:**

If you have a keen interest in finance, your analytical skills can be applied in financial analysis roles, where you'll assess the financial health of organizations, analyze investment opportunities, and contribute to strategic financial planning.



## **CONSULTANT:**

With expertise in both business and data analysis, you can work as a consultant, advising organizations on optimizing their operations, implementing data-driven strategies, and solving complex business challenges.



## **ENTREPRENEUR OR BUSINESS OWNER:**

Armed with a deep understanding of how data can drive business decisions, you may choose to start your own business, leveraging your skills to make informed strategic choices.



## **PROJECT MANAGER:**

Your ability to analyze data and understand business requirements makes you well-suited for project management roles, where you can oversee the implementation of data-driven projects.

## TECHNOLOGIES COVERED



MS EXCEL



POWER BI



SQL



PYTHON AND ITS LIBRARIES



STATISTICS



TABLEAU

## REVIEWS



Google  
Customer Reviews  
★★★★★ 4.8/5

GOOGLE REVIEW (4.8 / 5)



FB REVIEW (4.8 / 5)

★ Trustpilot

★★★★★ | 4.9/5

TRUSTPILOT REVIEW (4.9 / 5)

# TOP HIRING COMPANIES



The logo for CFI Education features the letters 'CFI' in a bold, white, sans-serif font inside a white square. To the right of the square, the word 'EDUCATION' is written in a white, all-caps, sans-serif font. The background is a solid blue color with a decorative pattern of thin, white, curved lines that create a sense of motion and depth.

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