CREDO SYSTEMZ
Simplifying IT

START YOUR POWER BI CAREER TODAY!!

CREDO SYSTEMZ

Power BI with AI Program

India's 1st AI-Driven IT Training – Credo Systemz

Capstone Projects :

Real Time Business Scenario using Power BI with AI. Build dashboards, use AI tools like Copilot and Q&A, and turn data into insights to solve real problems.

Financial Forecasting

Developing a financial forecasting dashboard to predict future financial performance.

E-commerce Sales

Creating a comprehensive e-commerce sales dashboard for data-driven decision-making.

Healthcare Data Analysis

To analyze healthcare data for improving patient care using Power BI.

Employee Attendance Report

Visualize attendance trends, absenteeism, and employee-wise breakdowns.

Customer Feedback Analysis

Analyze sentiment scores, feedback categories, and satisfaction trends using survey data.

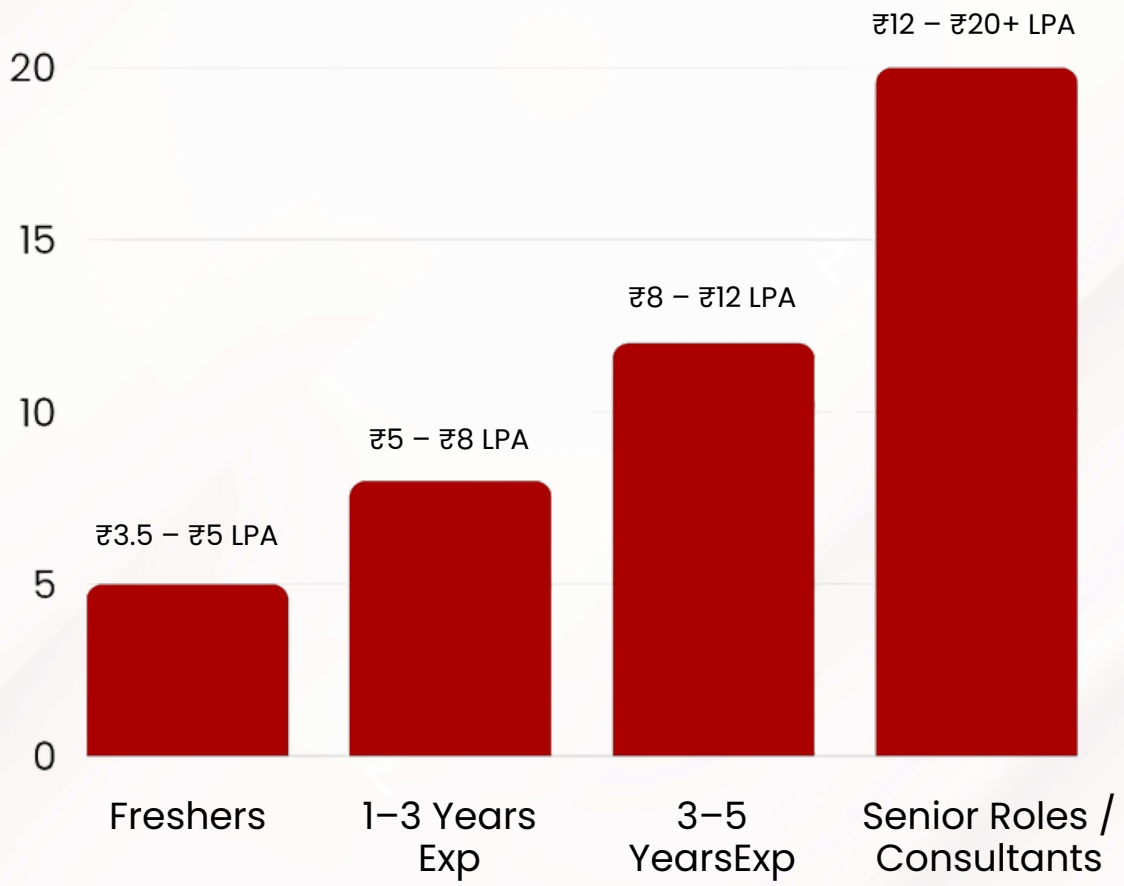
Product Inventory Management

Show stock levels, reorder alerts, fast/slow-moving items.

Power BI

Opportunities & Demand

- **Power BI Developer**
- **BI Consultant**
- **Business Intelligence Analyst**
- **Power Platform Developer**
- **Data Analyst**
- **Data Visualization Specialist**



POWER BI WITH AI
COURSE SYLLABUS

Duration : 40 hrs

Section 1 : Power BI with AI

AI Fundamentals for Power BI

- What is Artificial Intelligence (AI)?
- Role of AI in Business Intelligence & Power BI
- Evolution of AI in Analytics Tools like Power BI
- Benefits of Integrating AI with Power BI
- Real-Time Use Cases of AI-Powered Dashboards
- Introduction to AI Prompts
- How Analysts Use AI in Power BI Today

Overview of AI Tools Used in Power BI

- Power BI Copilot
- Overview of Built-in AI Features
- ChatGPT
- Codeium / GitHub Copilot(Optional)
- AI builder
- Excel Copilot + Power BI

Setting Up AI Features in Power BI

- Activating Power BI Copilot
- Enable in Power BI Desktop
- Requires Microsoft 365 & proper licensing
- ChatGPT Setup for Analysts
- Tips for getting better answers from ChatGPT
- Prompt Engineering Basics
- Best practices for effective AI prompting

Section 2 : SQL Introduction

- Introduction to SQL (Structured Query Language)
- Advantages of SQL
- Database
- Tables
- SQL Data Types - Numeric Types, StringTypes, Date & Boolean
- SQL Commands - DDL, DML, DCL, TCL, and DQL
- Data Definition Language (DDL) - CREATE, ALTER, DROP, TRUNCATE
- Data Manipulation Language(DML) - INSERT, UPDATE, DELETE
- Data Query Language (DQL) - SELECT
- SQL Operator
- SQL Clauses - GROUP BY, HAVING & ORDER BY
- SQL JOINS - INNER JOIN, LEFT JOIN, RIGHT JOIN, FULL JOIN
- SQL Keys - Primary Key & Foreign Key
- Tables Relations - One-to-One, One-to-Many, Many-to-Many

AI in Action:

- Auto-complete SQL with Copilot/ChatGPT
- Fix errors instantly
- Optimize queries(JOIN, GROUP BY)
- Detect data anomalies

Section 3 : Power BI Fundamentals

- IOverview of Power BI
- Power BI Components
- Understanding the Power BI Workflow
- Installing Power BI Desktop
- What is Power BI Interface

AI in Action:

- Generate visuals via plain text
- Smart UI navigation
- Auto-create dashboard templates

Section 4 : Connecting to Data Sources

- Importing Data from Various Sources – Excel, CSV, PDF, SQL Server, Azure, JSON, Folders, and Web
- Understanding Data Connectivity Modes – Import Mode
- Understanding Data Connectivity Modes – Direct Query Mode

AI in Action:

- Auto-detect schema/types
- Recommend best sources
- Assist with JSON, APIs, Web

Section 5 : Data Transformation

- Power Query Editor
- Creating Custom Columns in Power Query
- Managing and Splitting Columns
- Reducing Rows in Power Query
- Applied Steps and Error Handling
- Transforming Unstructured Data
- Exploring Transform Menu Options
- Pivoting Data in Power Query
- Unpivoting Columns
- Transforming Text, Numbers, Dates, and Times
- Filtering and Sorting Data in Power Query
- Grouping Data in Power Query
- Merging Queries in Power Query
- Appending Queries in Power Query
- Removing Duplicate Rows in Power Query
- Creating Conditional Columns and Custom Logic
- Using Group By for Data Aggregation
- Extracting Data from JSON and XML Sources
- Applying Date and Time Functions in Power Query
- Creating and Using Query Parameters
- Data Profiling and Quality Control in Power Query
- Transforming Data from Web Sources

AI in Action:

- Transform with plain English
- Auto-clean and fix data
- Suggest pivot/merge/split

Section 6 : Data Modeling

- What is Data Modeling and Why is it Important?
- Key Concepts in Data Modeling – Tables, Relationships, Measures, Columns, and Schema Types
- Understanding Entities – Dimension Tables & Fact Tables
- Exploring Data Relationships
- Creating Relationships (Cardinality) in Power BI with Real-World Examples
- Establishing a One-to-One Relationship
- Establishing a One-to-Many Relationship
- Establishing a Many-to-Many Relationship
- Cross Filter Direction
- Best Practices for Managing Relationships
- Data Models
- Gaining insight into Flat or Denormalized Structures with a real-life example
- Exploring the Star Schema with an actual use case
- Understanding the Snowflake Schema with a real-world illustration
- Normalization & Denormalization
- Understanding How to Normalize Real-Time Data

AI in Action:

- Suggest relationships
- Recommend schema types
- Detect normalization issues

Section 7 : DAX - Data Analysis Expressions

7.1 : Introduction to DAX (Data Analysis Expressions)

- Overview of DAX and its role in Power BI, Power Pivot
- Purpose of DAX for creating custom calculations, aggregations, and enhancing data models.

7.2 : DAX Syntax and Functions

- Structure and syntax of DAX formulas.
- Commonly used DAX functions and operators.

7.3 : Creating Calculated Columns and Measures

- Differences between Calculated Columns and Measures.
- How to create Calculated Columns and Measures in Power BI.

7.4: Performing Basic Calculations with DAX

- Basic arithmetic operations and common aggregation functions: SUM, AVERAGE, MIN, MAX.
- Calculating totals and averages using DAX.

7.5 : Measures vs. Calculated Columns: Key Differences

- Static calculations in Calculated Columns vs. dynamic, context-based calculations in Measures.
- When to use one over the other.

7.6 : Aggregation Functions in DAX

- Key aggregation functions: SUM, COUNT, AVERAGE, DISTINCTCOUNT, COUNTROWS.
- Aggregating data at different levels of detail.

7.7 : Logical Functions in DAX

- Conditional logic with IF, SWITCH.
- Complex logical expressions and handling multiple conditions.

7.8 : Time Intelligence in DAX

- Year-over-Year (YoY) comparisons, running totals, and other date-based calculations.
- Time Intelligence functions: SAMEPERIODLASTYEAR, TOTALYTD, DATESYTD, etc.

7.9 : Advanced DAX Functions

- Year-over-Year (YoY) comparisons, running totals, and other date-based calculations.
- Time Intelligence functions: SAMEPERIODLASTYEAR, TOTALYTD, DATESYTD, etc.

7.10 : Context in DAX

- Row Context: Row-wise calculations and iteration.
- Filter Context: Impact of filters applied in reports on DAX calculations.

7.11 : Iterators in DAX

- functions like SUMX, AVERAGEX, MINX, MAXX for row-wise calculations
- Using iterators to perform calculations across tables.

AI in Action:

- Suggest relationships
- Recommend schema types
- Detect normalization issues

Section 8 : Visualizations

- Overview of Data Visualization
- Types of Visuals
- Bar Charts: Comparing data across different categories.
- Line Charts: Displaying trends over time.
- Pie Charts: Representing proportions or percentages of a whole.
- Column Charts: Displaying data comparisons across categories (vertical bars).
- Scatter Plots: Showing relationships or correlations between two variables.
- How Power BI Handles Data Visuals
- Formatting Visuals
- On-object Interaction: Using interactive elements like filters and slicers.
- Font and Font Size: Customizing text appearance in visuals for better readability.
- Colors and Stylistic Options: Personalizing visuals through color schemes, themes, and styles to enhance user experience.
- Scatter Charts and Bubble Charts
- Customizing Visuals
- Advanced Filtering
- Hierarchies, Drill-Downs, and Conditional Formatting
- Matrices and Bar Charts
- Tree Maps and Funnel Charts
- Maps and Geo-Data Visualizations
- Key Performance Indicator (KPI) Dashboard
- Q&A Visual
- Drill Through and Drill-Down Visualizations
- Time-Based Visualization
- AI Visuals in Power BI - Decomposition Tree, Key Influencers Visual & Q&A Visual

AI in Action:

- Use Key Influencers, Q&A, Tree
- Generate narratives
- Highlight insights

Section 9 : Interactive Dashboards

- Designing Dashboards
- Creating Interactive Dashboards
- Enhancing User Experience
- To design for Mobile Devices
- Incorporating Visual Interactions - Sync Slicers, Selection Controls

AI in Action:

- Auto-layout suggestions
- Improve UX via AI
- Mobile optimization

Section 10 : Power BI Service - Publishing and Sharing Reports

- To publish Power BI Service
- Steps to Publish Reports
- Understanding Workspaces and Apps
- Overview of Sharing and Collaborating
- Sharing Reports and Dashboards
- Collaboration Features in Power BI Service
- Exporting Reports
- Embedding Reports
- Exporting Reports to PDF
- Exporting Reports to Excel
- Embedding Power BI Reports in Application

AI in Action:

- Copilot for Q&A and visuals
- Recommend share settings
- Auto-alerts on key metrics

Section 11 : Row-Level Security - RLS

- Introduction to Data Security
- To Implement Row-Level Security in Reports
- What is Role-Based Access Control - RBAC

AI in Action:

- ASuggest user roles
- Detect access issues
- Auto-generate RBAC rules

Section 12: Real-World Applications

- Industry Use Case
- To Create Dashboards for Business Insights
- Create a Real Time Sales Dashboard
- Capstone Project

TOOLS

Tools Covered

Power BI Desktop

Power BI Service

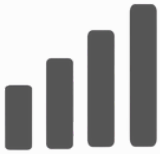
Power BI Copilot

Excel Copilot

SQL

Power Query Editor

DAX

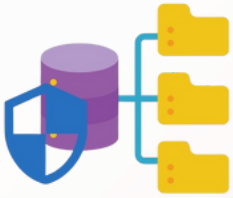


GitHub Copilot

Exporting Reports

AI Builder

Row-Level Security



Power BI Report Server

Embedding Reports

Pie Charts

Model

PLACEMENT SUCCESS STORIES

	Designation	Company	Package
 Shashank	Power BI Developer	SIMSON Softwares	10.8 LPA
 Anuradha	BI Consultant	ECS Cloud Infotech	8.5 LPA
 Sandhya	Power Platform Developer	COLAN INFOTECH	7.8 LPA
 Ramesh	Data Analyst	Beelogical	8.6 LPA
 Joesph	BI Developer	Shellinfo Global	8.0 LPA
 Mohammed	Data Analyst	SUNSMART	11.0 LPA

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ALTOS Technologies

Earn your Power BI with AI Course Completion Certificate

Credo Systemz's certificate is highly recognized by 30K Global companies around the world.

WHAT OUR TRAINEE SAYS?

Santhosh

4.7 ★★★★½

My return for further training on the trending tool Power BI is due to the trainer's extensive knowledge, the admin team's regular updates and support, and their prompt attention to placements.

Fathima Banu

4.2 ★★★★½

I completed powerbi with AI training from credo Systemz, Velachery. The training provided has been good and from a real-time perspective. Trainer explained the concepts very clearly and effectively. Thank you!!

Prakash Jain

5.0 ★★★★★

I completed powerbi training from credo Systemz, Velachery. The training provided has been excellent and from a real-time perspective. I would recommend anyone looking for powerbi training.

Saindhavi

4.9 ★★★★½

Very good institution, I have completed my power Bi with AI course in Credo systemz and our Mentor was extremely good and supportive it was very great session throughout the course!!!.

Jesuraj. F

4.0 ★★★★

I have done power bi with AI class in credo systems, the classes taken professionals and well organized manner. Very good experience

Anjali Ravi

4.5 ★★★★½

Recently I was completed my PowerBI course in credo Systemz via Online. it was good experience and sessions were more practical and easy.

CHENNAI

VELACHERY

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