Coding MASTERS
Masters in Online Training

Real Time

AI-POWERED DATA ANALYST

5-10 Mini and Major Projects

Why Choose us?

- Mock Interviews
- Resume Building
- 1:1 Career Mentorship
- Industry Ready Curriculum

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ABOUT TRAINER

Subba Raju Sir

TRANSFORMING PROFESSIONALS INTO AI INNOVATORS

SUBBA RAJU SIR

CERTIFICATIONS & CREDENTIALS

- Microsoft Certified Data Scientist & Co-pilot Engineer
- Google Certified Gen-AI Engineer
- Certified Pythonista Programmer
- Certified AI in Testing (ISTQB)
- Certified in GenAI & Agentic AI Engineering (Google, Microsoft, IITG)

Withover 24years of ITexperienceand an M.Sc. in Computer Science from Manipal University, Subba Raju Sir is a leading trainer in Data Science, Prompt Engineering, LLMs, Generative AI, Agentic AI, and Autonomous Testing (AI). He emphasizes hands-on, industry-oriented learning that bridges the gap between academic concepts and real-world applications.

SPECIALTIES & EXPERTISE:

- DATA SCIENCE, AI, AND GENERATIVE AI
- PROMPT ENGINEERING & AGENTIC AI SOLUTIONS
- PYTHON PROGRAMMING & AI TESTING
- CORPORATE & ACADEMIC TRAINING (250+ HOURS COURSES)
- MENTORING PROFESSIONALS FOR CAREER GROWTH IN AI

Reviews

AI-POWERED DATA ANALYST

Janumpally Anilkumar

★★★★★

I enrolled in the AI-Powered Data Analyst course at Coding Master, and it completely transformed the way I understand data. Subba Raju sir explains every concept with real-time clarity, and the hands-on AI projects boosted my confidence like never before. This training is a game-changer for anyone serious about a data career

M

Manoj Kumar

★★★★★

The course structure is absolutely world-class. From basic analytics to advanced AI automation, everything is taught in a simple and practical way. Subba Raju sir's teaching style is unmatched — patient, clear, and deeply knowledgeable. Easily the best place to learn AI-driven analytics.

U. Lm Yadav

★★★★★

I joined with zero technical background, but today I can build AI-powered dashboards and automate business reports. All credit goes to Coding Master and especially Subba Raju sir for making the learning journey smooth and engaging. Highly recommended for beginners!

Vamshi Vinnie

★★★★★

The best part of this course is the practical exposure. We didn't just learn concepts — we built actual AI projects that companies use today. Subba Raju sir makes even difficult topics feel easy. If you're planning a future in data analytics, this course is a must.

MODULE 1 – PYTHON

1. Introduction to Python & Setup

- What is Python?
- Installing Anaconda
- Using Jupiter Notebook / VS Code
- Creating Python environments

2. Python Basics

- Syntax & indentation
- Variables & keywords
- Input/output basics
- Comments & docstrings

3. Python Data Types & Structures

- Built-in types: int, float, string, Boolean
- Type casting & conversions
- String slicing & formatting
- Mutable vs immutable types

4. Operators

- Arithmetic, Logical, Relational
- Assignment, Identity & Membership operators

5. Core Collections

Lists

- Creating, accessing, and modifying lists
- List methods & list comprehensions

Tuples

- Tuple creation
- Packing & unpacking

Dictionaries

- Key–value storage
- Adding, updating, and deleting items

Sets

- Key–value storage
- Adding, updating, and deleting items

6. Sequence Operations

- Indexing, slicing
- Concatenation, repetition
- Membership testing

7. Control Flow

- if, elif, else
- for loops, while loops
- break, continue, pass

8. Functions

- Defining functions
- Parameters & return values
- Lambda functions
- *args and **kwargs

9. Python Modules

- Math module
- Calendar module
- Datetime module

10. File Handling

- Reading & writing files
- Working with CSV files

MODULE 2 – ADVANCED PYTHON

11. Data Analytics Libraries

NumPy

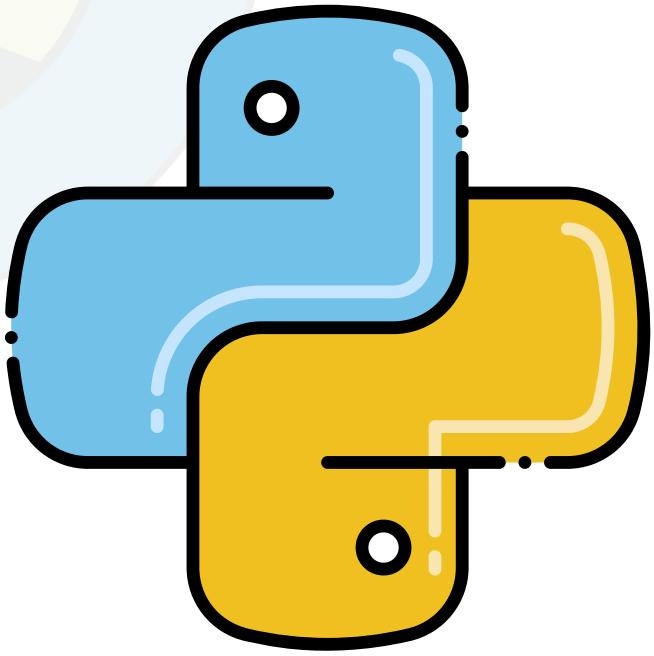
- Arrays, indexing, reshaping
- Mathematical operations

Pandas

- Series & Data Frame
- Data cleaning (missing values, duplicates)
- Merge, join, group by

Matplotlib

- Basic charts: line, bar, pie
- Customizing plots



Seaborn

- Statistical visualizations
- Heatmaps, pair plots, box plots

12. Mini Projects

- Sales trend analysis
- Employee dataset cleanup
- Visualization dashboard

ADVANCED EXCEL + EXCEL WITH AI (COPILOT)

MODULE 1 – ADVANCED EXCEL

1. Introduction to Excel

- Excel interface overview
- Workbook, worksheets, tables
- Productivity shortcuts

2. Data Handling & Formatting

- Cleaning raw data
- Custom formatting
- Table formatting, named ranges

3. Data Filtering & Restriction

- Basic & advanced filters
- Sorting techniques
- Data validation
- Drop-down lists, input restrictions

4. Worksheet & Workbook Protection

- Lock/unlock cells
- Protect sheets & formulas
- Password protection

5. Statistical Functions

- AVERAGE, MEDIAN, MODE
- COUNTIF, COUNTIFS
- STDEV, VAR, CORREL

6. Lookup & Reference Functions

- LOOKUP, HLOOKUP
- XLOOKUP
- INDEX + MATCH
- INDIRECT, OFFSET

7. Advanced Functions

- Nested formulas
- Text functions (LEFT, RIGHT, MID, TRIM)
- Number functions (ROUND, CEILING, FLOOR)
- Dynamic arrays

8. Date & Time Functions

- DATE, TODAY, NOW
- DATEDIF, NETWORKDAYS
- Working with calendars

9. Logical Functions

- IF, AND, OR
- IFS, SWITCH
- Multi-condition logic

10. Conditional Formatting

- Highlight duplicates
- Top/bottom rules
- Color scales, icon sets
- Formula-based formatting

11. Data Cleaning Tools

- Text-to-columns
- Flash Fill
- Remove duplicates
- Advanced Find & Replace

12. Pivot Tables

- Creating pivot reports
- Grouping data
- Slicers & timelines
- Calculated fields

13. Power Query (Data Automation)

- Importing data (files/databases)
- Merge, append, shape data
- Automated refresh pipelines

14. Power Pivot (Data Modeling)

- Data model creation
- Table relationships
- Basic DAX formulas

15. Charts & Visualization

- Line, bar, pie, combo charts
- Trendlines & forecasting
- Sparklines

16. Dashboard Development

- KPI dashboard design
- Linking charts with slicers
- Interactive dashboards

MODULE 2 — EXCEL WITH AI & COPILOT

1. Introduction to Copilot in Excel

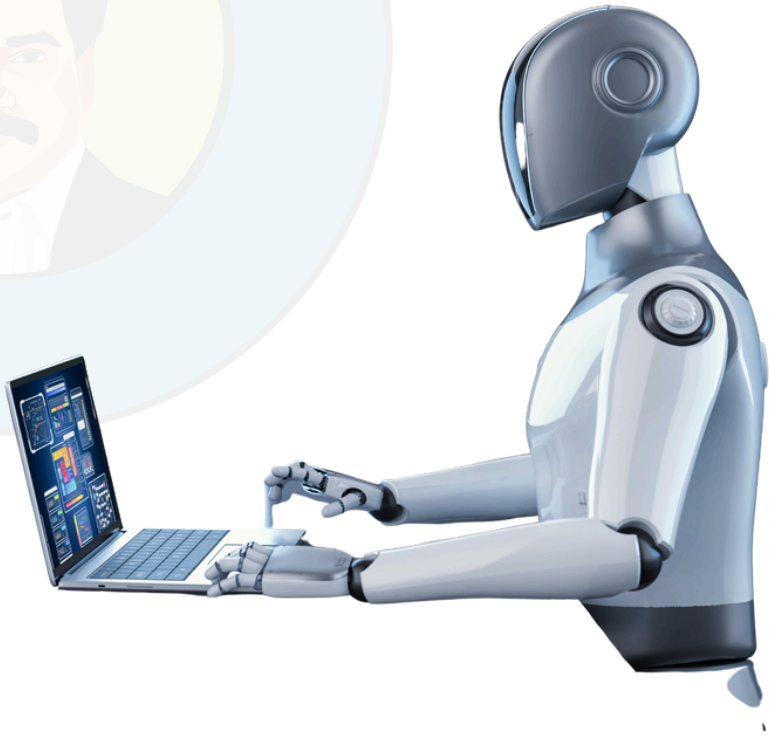
- What is Copilot?
- How AI works inside Excel
- Copilot interface & usage

2. AI for Data Analysis

- Ask Copilot questions
- Automatic insights
- AI-driven trends
- Quick analysis via natural language

3. AI for Formula Generation

- Create formulas using prompts
- Natural language → Excel formulas
- Debug & optimize formulas



4. AI for Data Cleaning

- Auto-clean messy data
- Smart Fill (AI Flash Fill)
- Detect missing or incorrect values

5. AI for Visualizations

- Ask Copilot to create charts
- Auto chart suggestions
- AI explanations of chart patterns

6. AI for Pivot Tables

- Generate pivot tables via prompts
- Automatic pivot recommendations
- Auto insights from pivot data

7. AI for Forecasting & Predictions

- Natural language forecasting
- AI trend detection
- Prediction reports

8. AI-Assisted Dashboards

- Build dashboards using prompts
- Auto-design layouts
- AI formatting

SQL + AI (MySQL + AI-Powered SQL)

MODULE 1—ADVANCED MySQL

1. Introduction to SQL

- What is SQL?
- Role of SQL in analytics
- SQL workflow & execution

2. Databases & RDBMS

- What is a database?
- RDBMS concepts
- MySQL architecture

3. Schemas

- Databases, schemas, tables
- Creating & managing schemas
- Primary & foreign keys

4. SQL Data Types

- Numeric
- Text
- Date & time
- Choosing the correct data types

5. Database Constraints

- Primary key, foreign key
- NOT NULL, UNIQUE
- CHECK, DEFAULT
- Referential integrity

6. SQL Transactions

- Start, commit, rollback
- Transaction management

7. ACID Properties

- Atomicity
- Consistency
- Isolation
- Durability

8. SQL Operators

- Comparison (=, <, >, !=)
- Logical (AND, OR, NOT)
- LIKE, BETWEEN, IN
- Arithmetic operators

9. Grouping Operations

- GROUP BY
- Aggregates (SUM, AVG, COUNT, MAX, MIN)
- HAVING

10. Subqueries

- Nested queries
- Single-row, multi-row
- Correlated subqueries

11. Views

- Creating & updating views
- Virtual tables for reporting

12. Triggers

- Before/after insert
- Update/delete triggers

13. Joining Tables

- INNER JOIN
- LEFT JOIN, RIGHT JOIN
- FULL JOIN
- Self-join, cross join

14. Indexing

- What is an index?
- Creating & dropping indexes
- Performance optimization

15. Stored Procedures

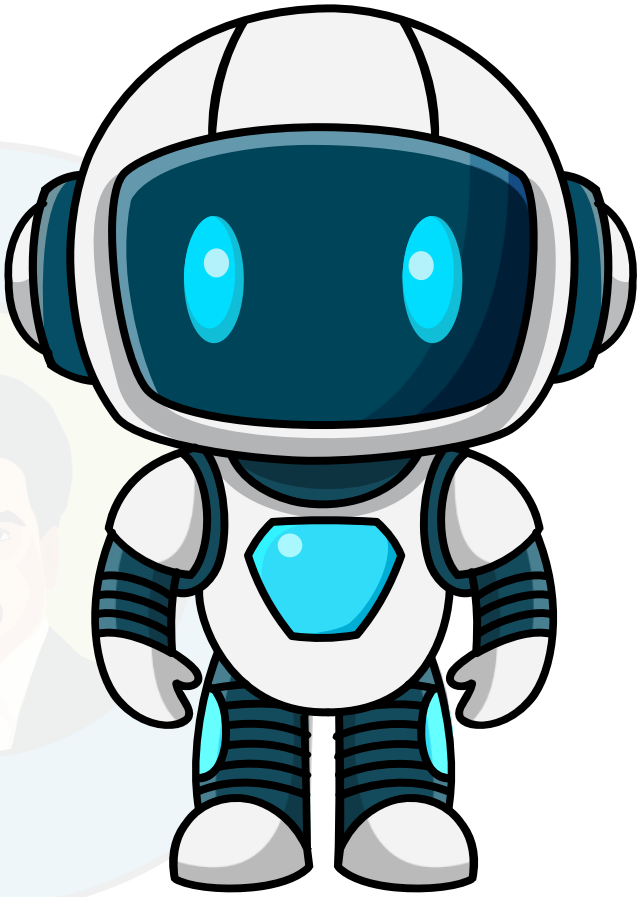
- Writing procedures
- Passing parameters
- Executing procedures

16. SQL Functions

- Built-in
- User-defined (UDFs)
- Scalar & table-valued

17. Error Handling

- SQL error codes
- Handling exceptions
- Debugging scripts



MODULE 2—SQL WITH AI

1. AI in SQL

- AI-powered SQL
- Copilot for SQL
- Natural language to SQL

2. AI for Query Writing

- Generate SQL using English
- Auto-correct syntax
- Explain queries
- Convert business questions to SQL

3. AI for Data Cleaning

- Auto-detect missing values
- AI data quality suggestions
- Pattern recognition

4. AI for Query Optimization

- Analyze slow queries
- Auto-suggest indexes
- Optimize joins & subqueries

5. AI-Powered Data Insights

- Automated summaries
- Trend detection
- Outlier & anomaly detection

6. AI for Documentation

- Auto-generate documentation
- SQL → natural language explanation
- AI for schema description

7. AI for Stored Procedures

- Generate procedures using prompts
- AI reviewing/refactoring logic

8. AI + MySQL Tools

- Using copilots with DB tools
- Browser-based AI SQL engines
- AI for schema optimization

POWER BI WITH AI (COPILOT / FABRIC AI)

MODULE 1 – ADVANCED POWER BI

1. Power BI Introduction

- What is BI & why Power BI?
- Power BI ecosystem
- Installing PBI Desktop
- Interface walkthrough

2. Power Query (ETL Layer)

- Power Query editor UI
- Data connections (Excel, CSV, SQL, Web, API)
- Data Types & Filters
- Assigning correct types
- Text, number, date filters

Transformations

- Column transformations (split, merge, extract, replace)
- Row transformations
- Handling errors & missing values

Combining Queries

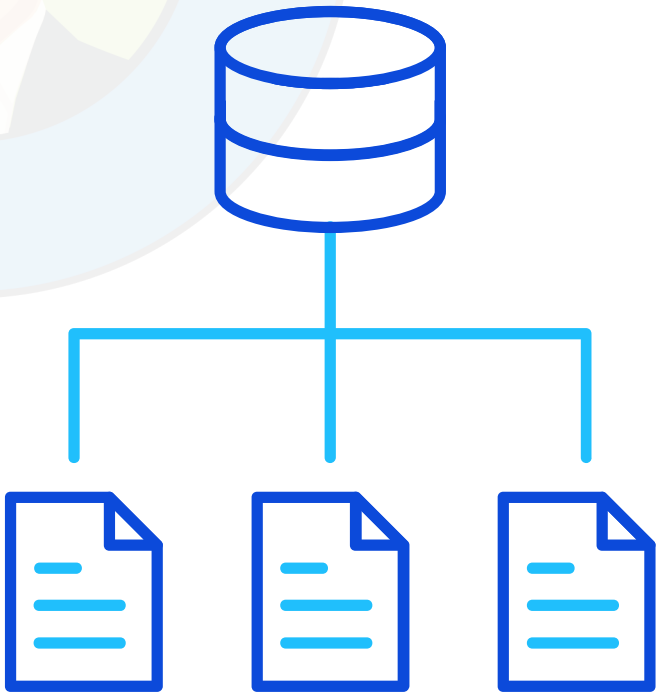
- Append
- Merge (join types)

3. Data Modelling

- Star vs Snowflake schema
- Fact & dimension tables
- Relationship cardinality
- Active vs inactive relations

4. DAX – Data Analysis Expressions

- Calculated columns
- Measures
- Calculated tables
- Aggregations
- Time intelligence
- Logical, text, math, filter functions



5. Data Visualization

- Hierarchies, drill-down
- Tooltips & drill-through
- Bar, line, area, combo charts
- KPI & card visuals
- Maps
- Conditional formatting
- Bookmarks, buttons, navigation

6. Power BI Service

- Publishing
- Dashboards
- Workspaces
- Collaboration
- RLS
- Data gateway
- Scheduled refresh

7. Storytelling

- Slicers, sync slicers
- Custom tooltips
- Interactive dashboards

MODULE 2 – POWER BI WITH AI

1. Introduction to AI in Power BI

- Fabric AI
- Copilot
- Auto insights

2. Copilot in Power BI

- Generate reports via prompts
- Auto-create DAX
- Auto-build visuals
- Summaries via AI

3. AI Insights

- Text Analytics (sentiment, key phrases, language)
- Vision AI
- Azure Cognitive Services integration

4. Q&A Natural Language Visual

- Build visuals by asking questions
- Teach Q&A model

5. Smart Narrative + AI Insights

- Auto summary of KPIs
- Trend & anomaly detection

6. Automated Forecasting & ML

- Time series
- Decomposition
- Python/R integration
- AutoML in Fabric

7. Power Automate + AI

- Automated workflows
- Alerts & triggers

8. AI-Powered Dashboards

- Insight-driven design
- Intelligent KPIs
- Auto-story generation

STATISTICS & PROBABILITY FOR DATA ANALYTICS

MODULE 1 – Descriptive Statistics

- Types of data
- Mean, median, mode
- Range, variance, standard deviation, IQR
- Normal distribution
- Skewness, kurtosis
- Outliers & boxplots
- Histograms

MODULE 2 – Inferential Statistics

- Population vs sample
- Sampling methods
- Point estimates
- Confidence intervals
- Null vs Alternative hypothesis
- p-value
- Significance level
- Type I & II errors
- Tests (t-test, chi-square, ANOVA – concept only)

MODULE 3 – Probability Basics

- Events & outcomes
- Simple probability
- Independent, dependent
- Mutually exclusive events
- Conditional probability
- Bayes' theorem
- Random variables
- Expected value
- Distributions: Binomial, Normal, Uniform

PRACTICAL PROJECTS

Excel – 5 Projects

1. Sales Performance Dashboard
2. HR Attrition Analysis
3. Inventory Stock Tracker
4. AI-Based Data Cleaning
5. AI Trend Forecast Report

Power BI – 5 Projects

1. Sales & Profit Dashboard
2. HR Performance Dashboard
3. Financial KPI Dashboard
4. Copilot-Automated Report
5. AI Q&A Dashboard

SQL – 5 Projects

1. E-Commerce Sales Analytics
2. Hospital Records System
3. Banking Transaction Monitoring
4. Natural Language → SQL Generator
5. AI Query Optimization

Python – 5 Projects

1. Retail Sales EDA
2. Customer Behavior EDA
3. Movie Ratings EDA
4. AI-Assisted EDA Report Generator
5. Natural Language → Python Code Executor

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MODULE

Ready for job

Build a strong resume, practice interviews, and get placement support to kickstart your career confidently.

LEARN THE SKILLS BUILD REAL PROJECTS. GET INTERVIEW READY

- RESUME BUILDING
- MOCK INTERVIEWS
- Q&A SESSIONS
- HR INTERVIEW QUESTIONS
- PLACEMENT ASSISTANCE

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Our Recent Placed Students

At **Coding Masters**, our faculty team comprises talented and experienced professionals with several decades of real-world industry experience. Our teaching style is tailored to meet **industry requirements**, ensuring no wasted effort or opportunity for learners. We are dedicated to empowering aspiring professionals with the skills they need to excel in the ever-evolving tech landscape. Known for offering the best **AI-Powered Data Analytics training in Hyderabad**, Coding Masters blends innovation, hands-on learning, and industry
relevance.

Our mission is to bridge the gap between **academic knowledge and industry** expectations by providing high-quality training in **AI-Powered Data Anlytics** and more. Guided by experts like **Subba Raju Sir**, every student receives personalized mentorship and a transformative learning experience.