



AI ENGINEER

with DLOps

PLACEMENT GUARANTEE PROGRAM



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www.regexsoftware.com

ABOUT THE PROGRAM



At Regex Software, we offer a comprehensive 18–24 Month Data Science & AI Specialization Program designed especially for B.Tech, BCA, B.Sc, BBA, B.Com and other college students who want to build a strong career in the tech industry.

This program is ideal for 1st and 2nd year students who want to start learning future technologies early and gain a competitive edge in the industry. The course is designed to build strong fundamentals first and then gradually move toward advanced concepts in Artificial Intelligence, Machine Learning, Big Data, and Data Analytics.

At Regex Software, we believe in practical learning rather than only theoretical knowledge. Our training approach combines conceptual understanding with hands-on implementation through real-world projects, live datasets, industry case studies, and portfolio-building assignments. Throughout the 18–24 month journey, students continuously work on practical tasks that help them understand how technologies are used in real companies and business environments.

The curriculum covers Python programming along with advanced libraries such as NumPy, Pandas, and Matplotlib, helping students build a strong foundation in programming and data handling. Students also learn Statistics, Data Analysis, SQL, Database Management, Machine Learning, Deep Learning, Big Data technologies like Hadoop and Spark, Data Visualization, Cloud fundamentals, and MLOps basics. The entire learning path is designed according to current industry requirements so students become job-ready with practical industry skills.



MODE

Physical
(Jaipur & Ahmedabad)
or Online
(Google Meet)



DURATION

18–24 months
+ 6 months support



PARTICIPANTS

18 - 20 Per
Batch

WHAT YOU WILL LEARN ?



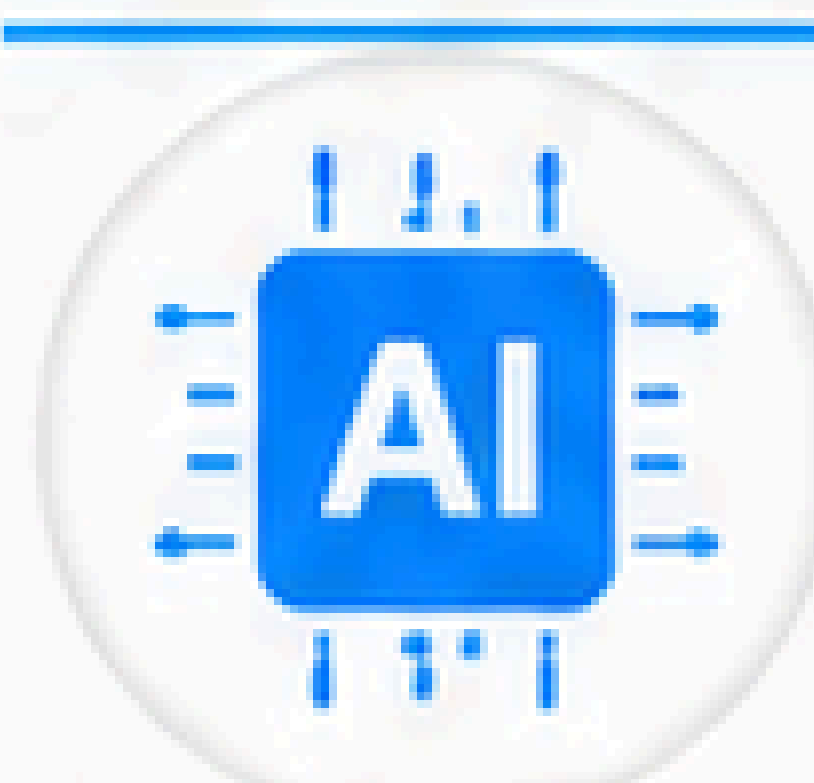
Python



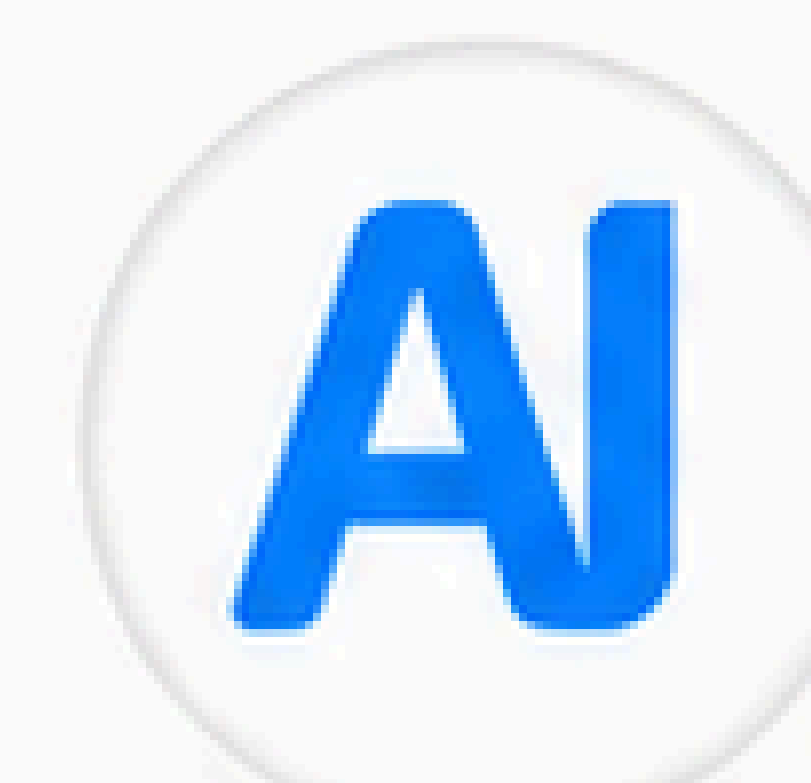
ML



DL



Generative AI



Agentic AI



SQL



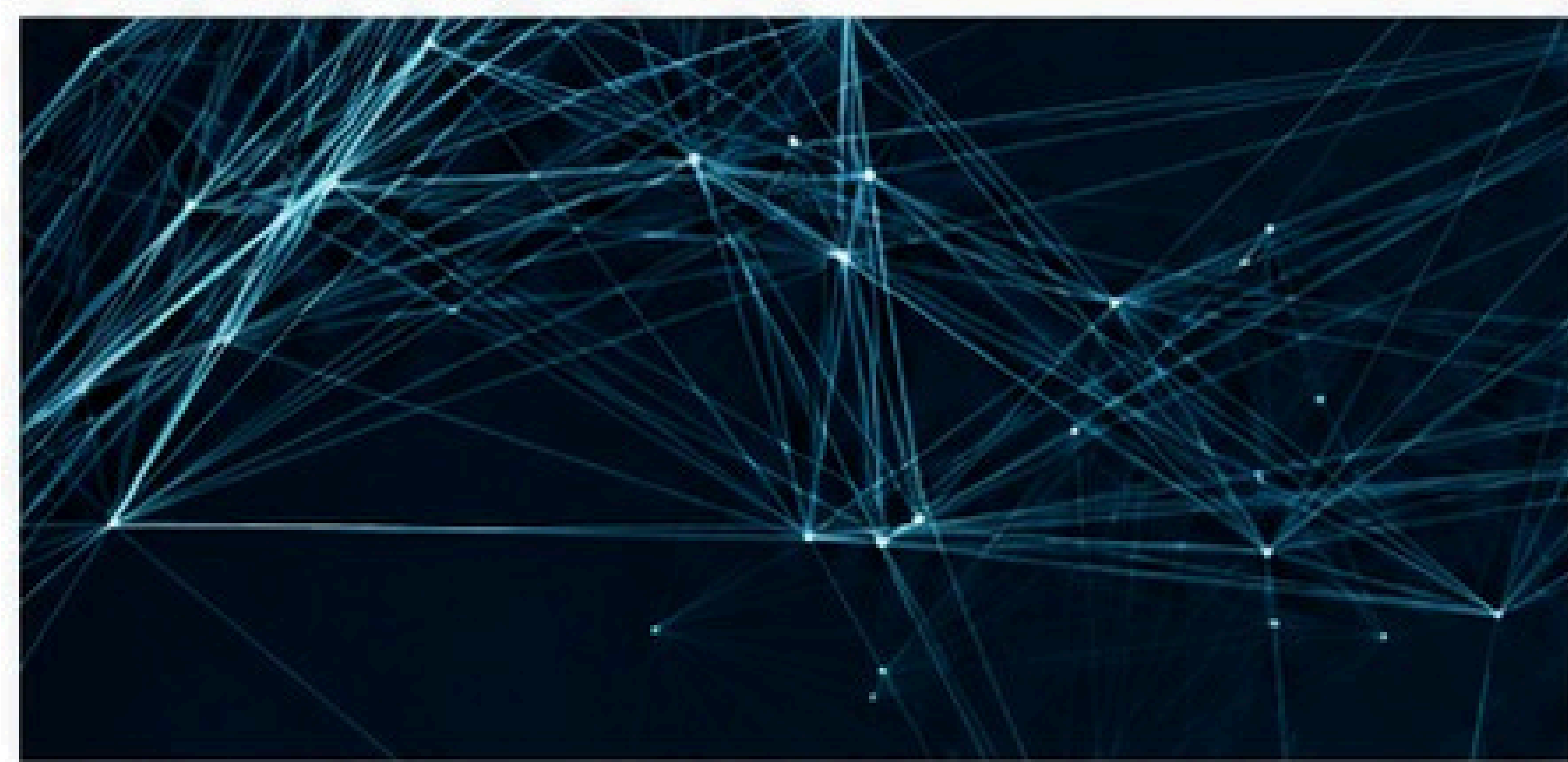
Docker



Kubernetes



Jenkins



Study Material

- E-Notes
- Assignments & PDF test
- Live Video Lectures
- Access of Recordings & Study Material
- Mentorship Support
- Work on multiple Minor Projects & Use Cases
- Work on Live Projects

Output

- Able to think out of the box
- Become expert in multiple technology domains like Python, Machine Learning, Deep Learning, Map Reduce, Apache Spark, Generative AI, Kafka, and Airflow deployment
- Understand working of ML models deployment in AWS
- Build projects on multiple technology domains
- Work on more than 25 Use CASES & Projects
- Learn to deploy your models on AWS Sagemaker or Google cloud Platform



Package Offered So Far

IT Candidates

➔ Minimum Package
4 LPA

➔ Average Package
4 - 6 LPA

➔ Overall Highest Package
39 LPA

Non-IT Candidates

➔ Minimum Package
3 LPA

➔ Average Package
3.5 - 5 LPA

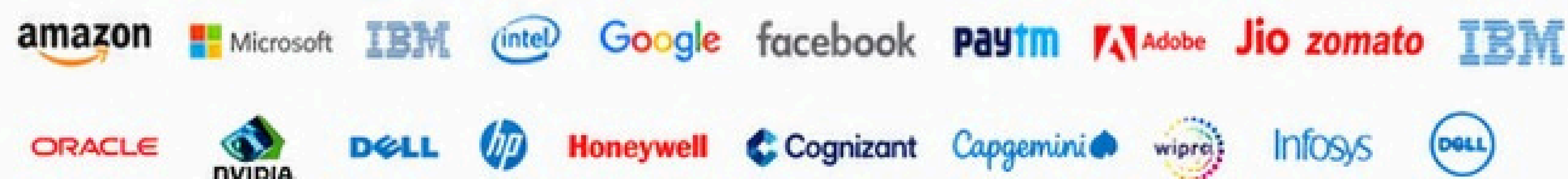
➔ Overall Highest Package
14.5 LPA



Extra Sessions:

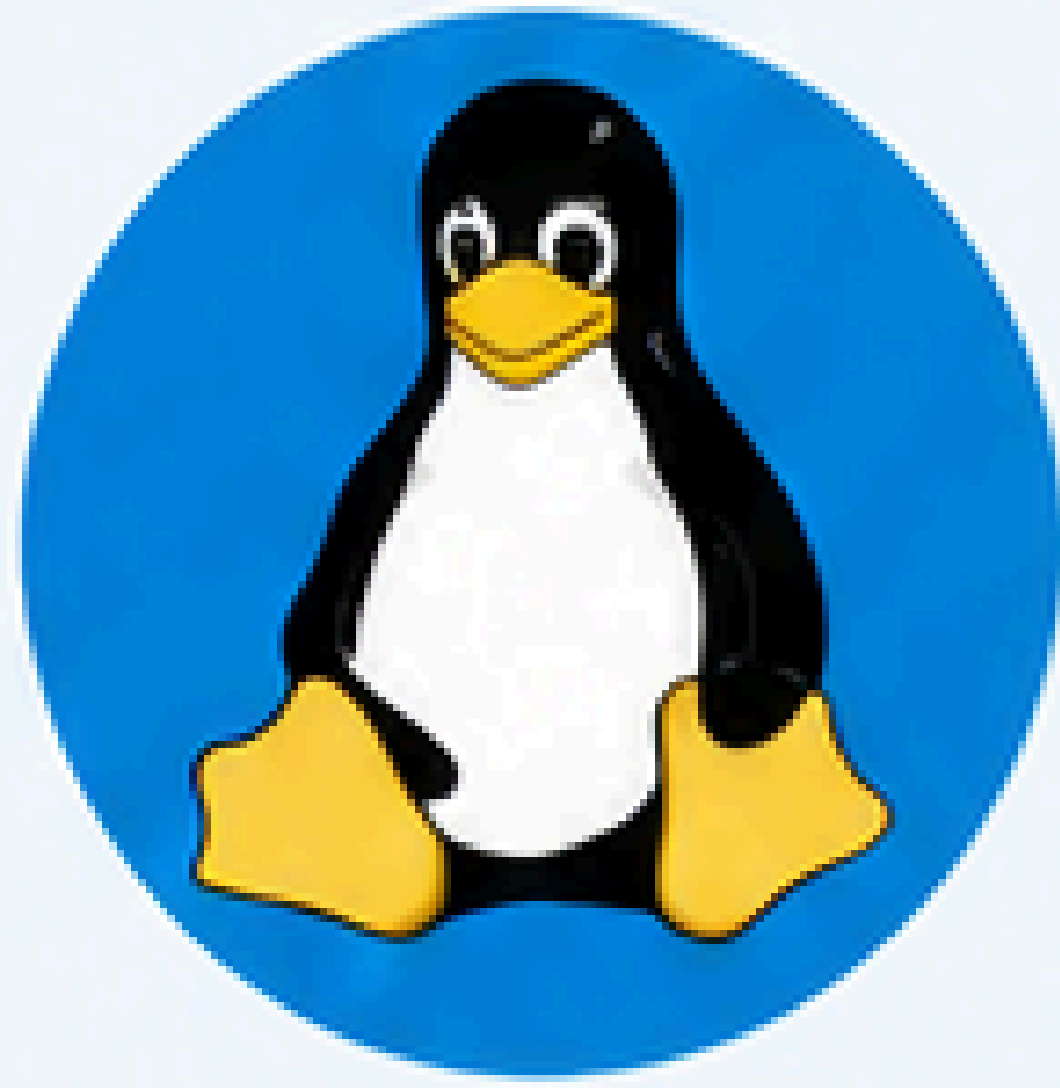
Additional Session on GIT, Linux, Docker, AWS Basics, Jenkins and many more for all students.

Our Students Placed // Partnership



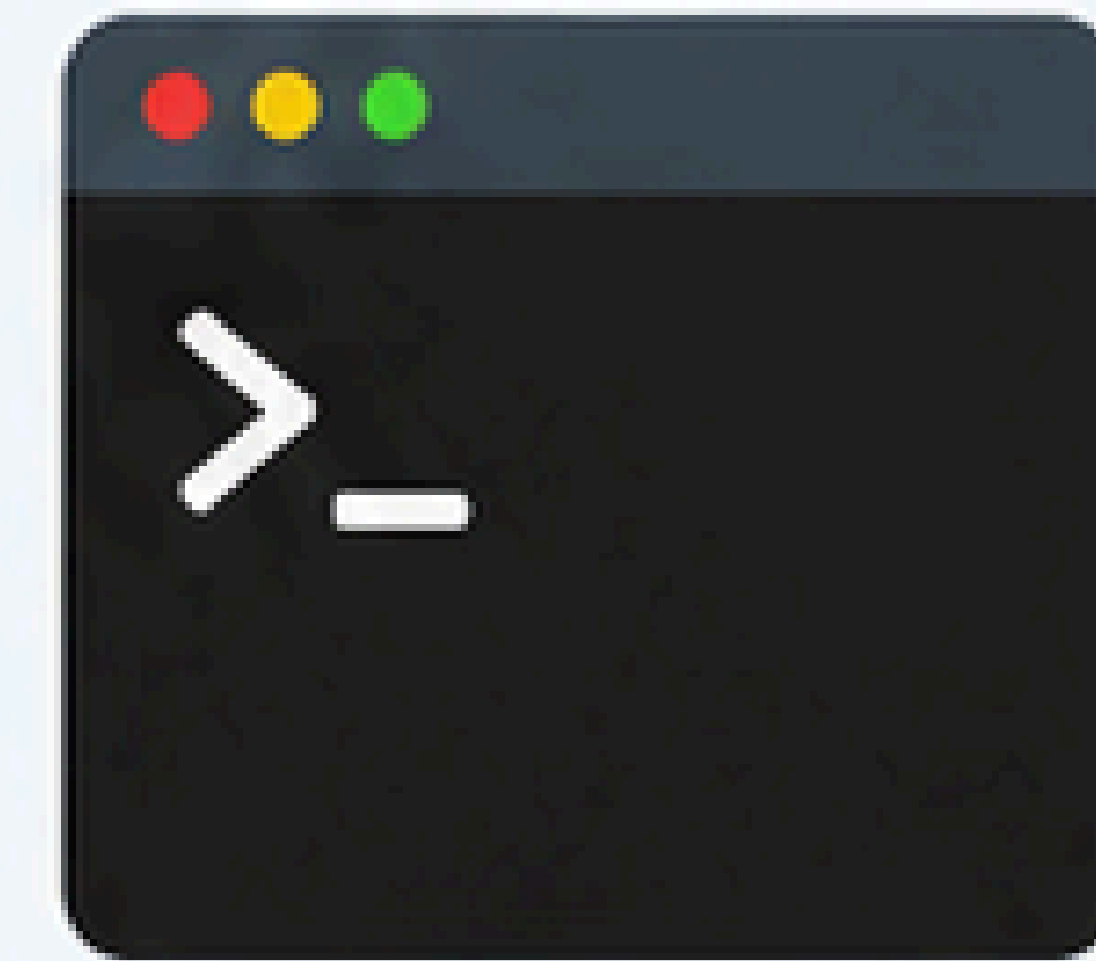
COURSE CONTENT:

PHASE 1



1. LINUX BASICS

- Introduction to Linux
- Basic Commands of Linux OS
- Vi Editor
- Tar Archive
- User Management and Permission



2. GITHUB

- Git vs GitHub
- Git Commands
- Git Branches
- Branching and Merging
- Git Push vs Pull Commands



3. C PROGRAMMING – CORE CONCEPTS

- Data Types
- Variables
- Variable Scope (Local, Global)
- Constants
- Operators
- Decision Making Statements (if Statement, if..else, Switch)
- Loops (While Loop, Do-While Loop, for-loop)



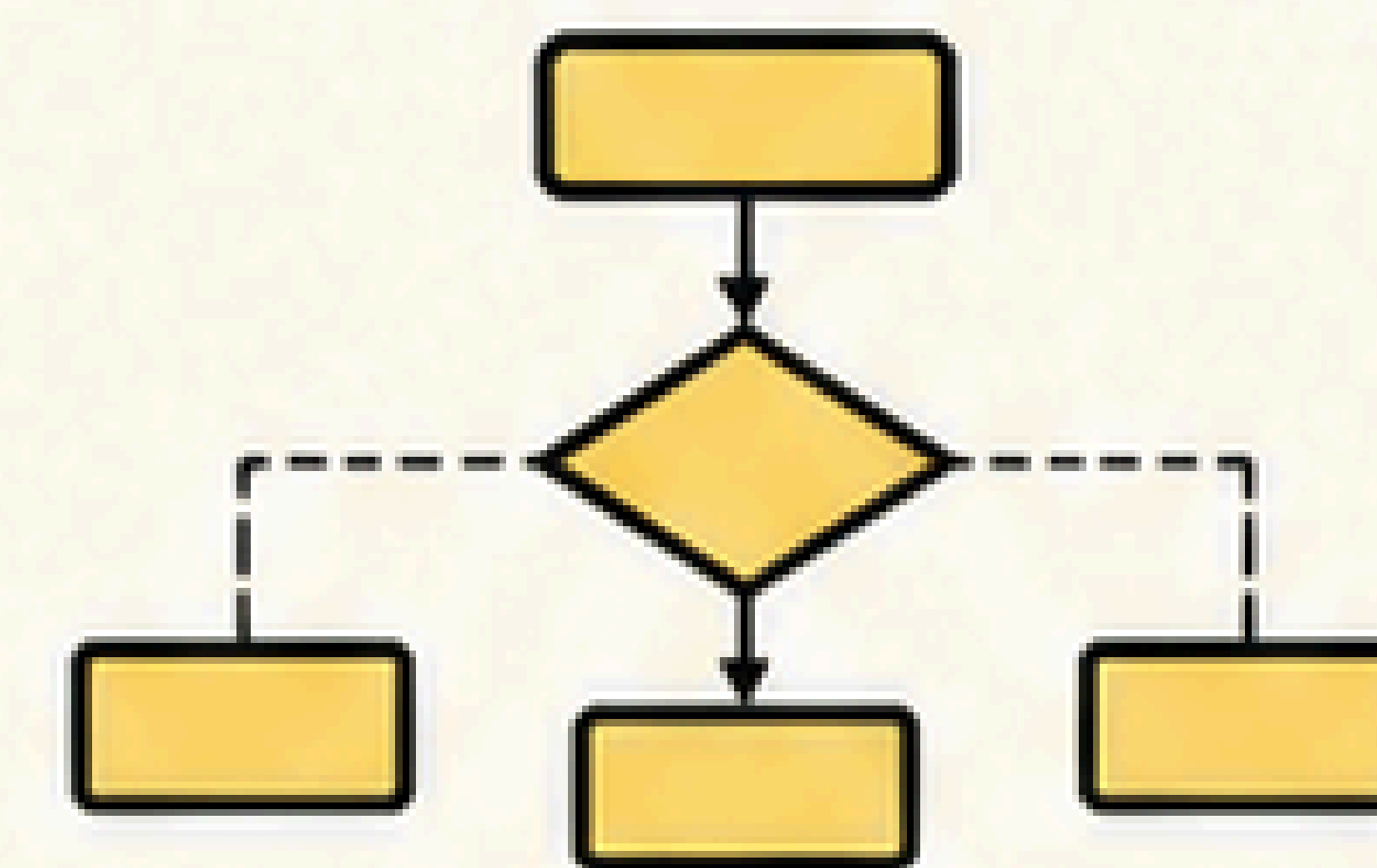
4. C PROGRAMMING – ADVANCED BASICS

- While Loop
- Do-While Loop
- for-loop
- Basic I/O Functions



5. LOGIC BUILDING

- Logical Thinking and Approach
- Flowcharts and Pseudocode
- Pattern Recognition
- Basic Problem-Solving



6. BASICS PROBLEM-SOLVING

- Understanding Problem Statements
- Breaking Problems into Steps
- Test Cases and Debugging
- Optimizing Solutions (Basics)



PHASE 2



1. C++ PROGRAMMING (OOP CONCEPTS)

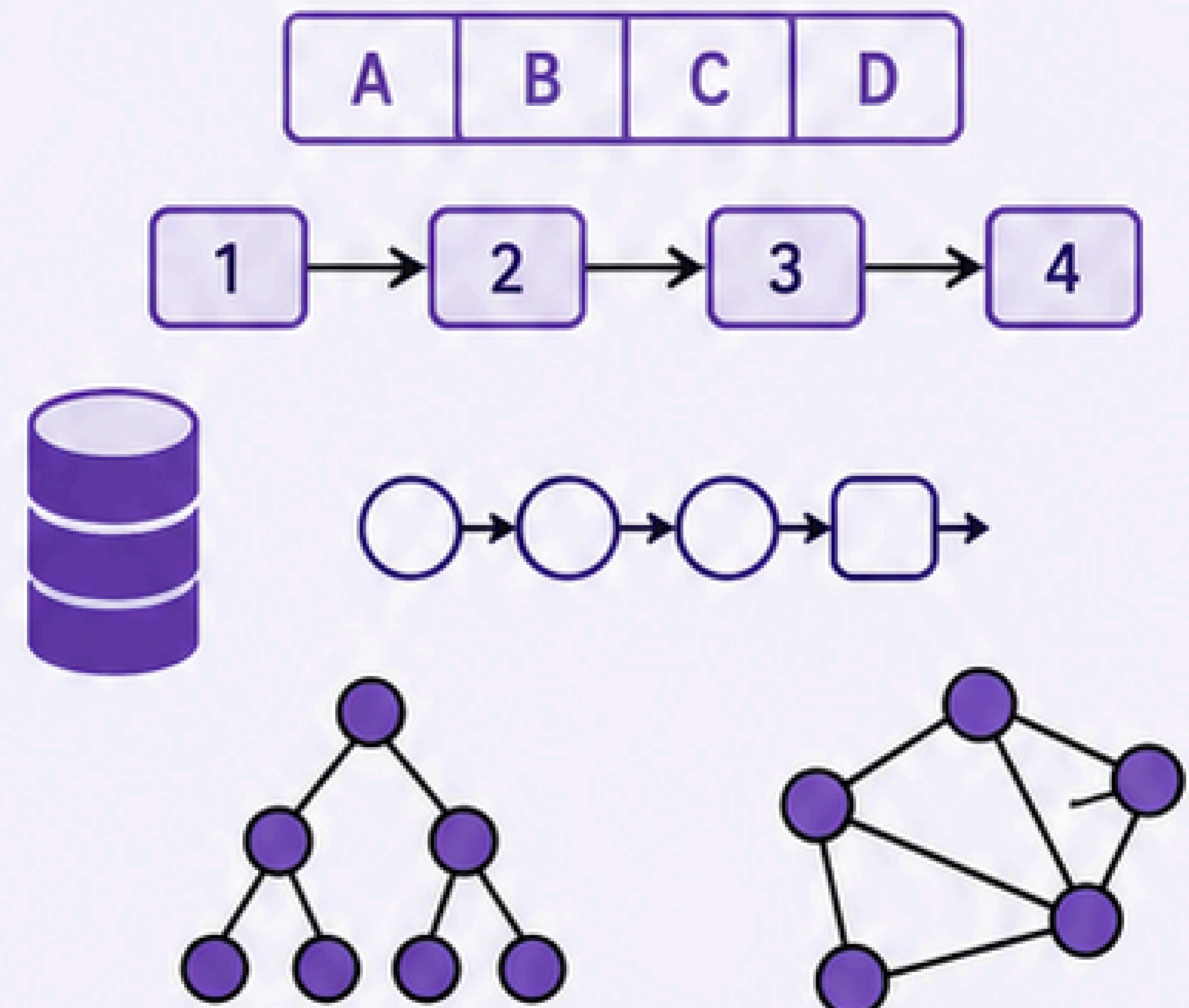
- Classes and Objects
- Constructors and Destructors
- this Pointer
- Access Specifiers: public, private, protected
- Getter and Setter Functions

```
class Student {  
public:  
    void set(int x);  
    int get();  
};
```



2. DATA STRUCTURES (ARRAY, LINKED LIST, STACK, QUEUE, TREES, GRAPHS)

- Arrays
- Linked List
- Stack
- Queue
- Trees
- Graphs



3. ALGORITHMS (SORTING, SEARCHING, RECURSION)

- Sorting Algorithms
- Searching Algorithms
- Recursion and Backtracking
- Time and Space Complexity



4. PROBLEM SOLVING (LEETCODE / CODEFORCES LEVEL)

- Problem Solving Techniques
- Pattern Recognition
- Practice on LeetCode
- Practice on Codeforces



PHASE 3



• Python Basics to Advanced

- Variables, Data Types & Operators
- Control Flow (if, elif, else)
- Loops (for, while)
- Functions & Modules
- OOP (Classes, Objects, Inheritance)
- Exception Handling
- Comprehensions & Lambda Functions
- Python Best Practices

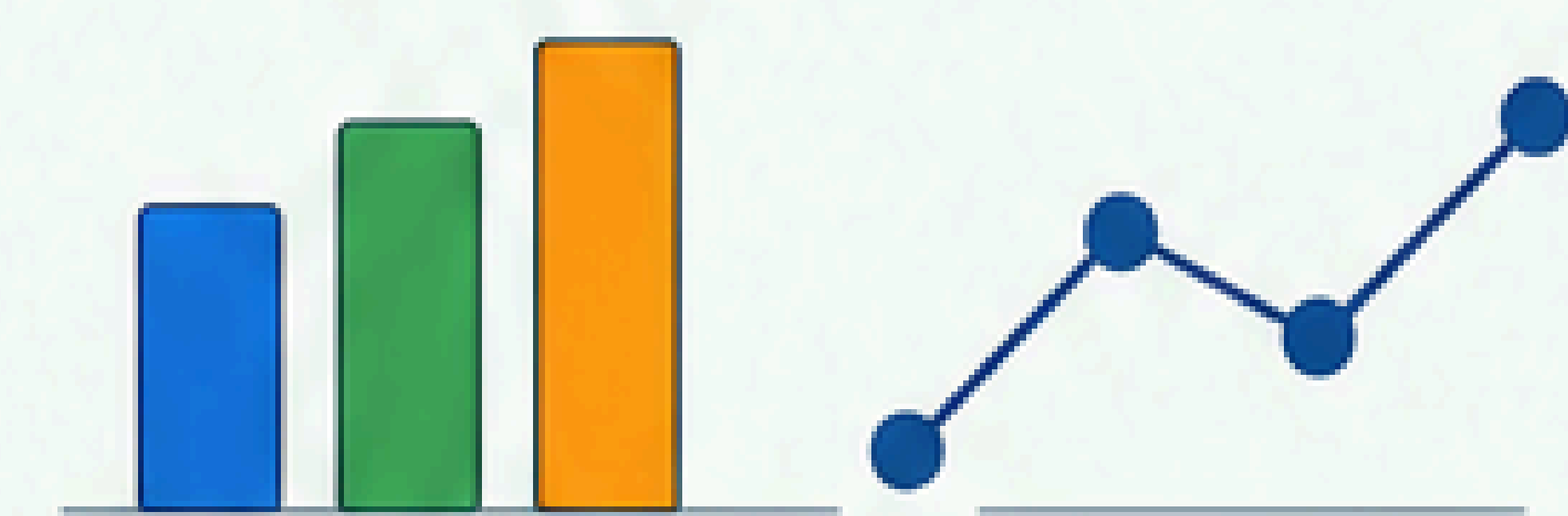
```
def greet(name):  
    if name:  
        return f"Hello,  
            {name}!"  
    else:  
        return "Hello,  
            Guest!"
```



• Libraries: NumPy, Pandas

- NumPy: Arrays, Operations, Indexing, Broadcasting
- Pandas: Series, DataFrame, Data Cleaning, Filtering, Grouping, Merging
- Data Analysis & Visualization Basics

	A	B	C
1	10	20	30
2	40	50	60
3	70	80	90



• File Handling & Automation

- File Operations (Read, Write, Append)
- Working with CSV, Excel Files
- JSON Handling
- Automating Tasks with Python
- OS & shutil Operations
- Error Handling in File Operations



• Real-world mini projects

- Data Analysis with Pandas
- CSV Data Analyzer
- Excel Report Generator
- Web Scraping (Basics)
- Automation Script Projects
- Complete Mini Projects

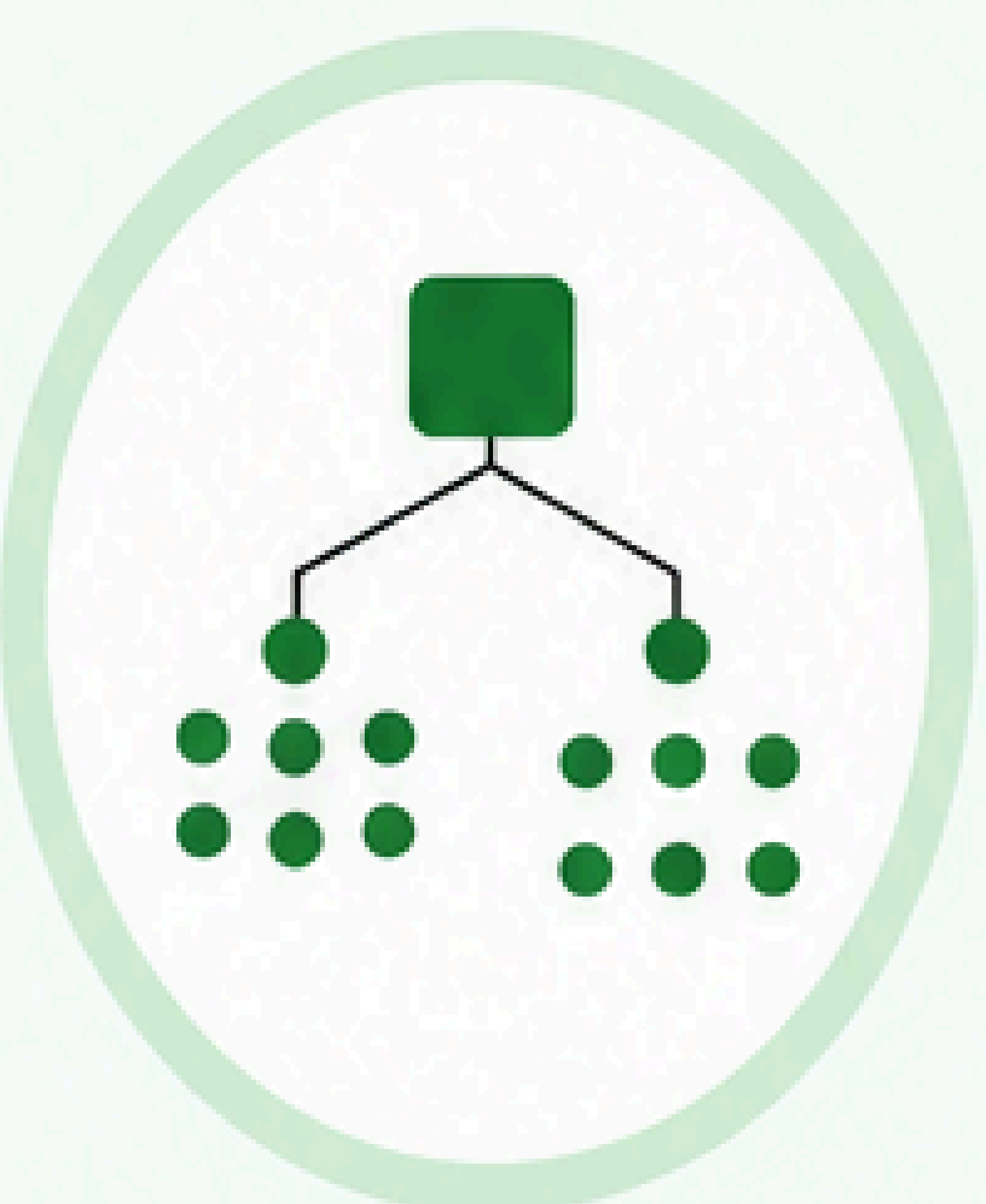
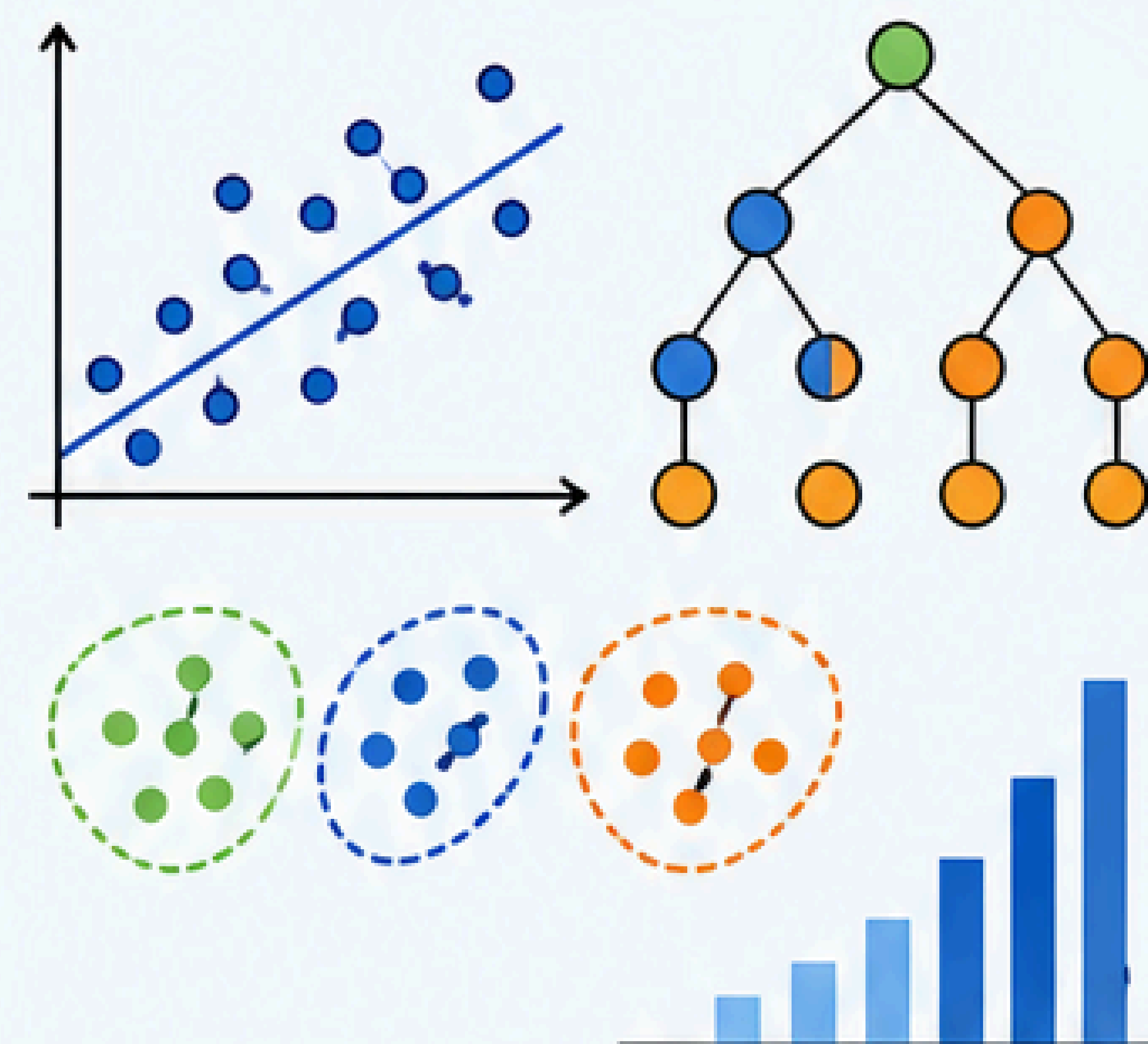


PHASE 4



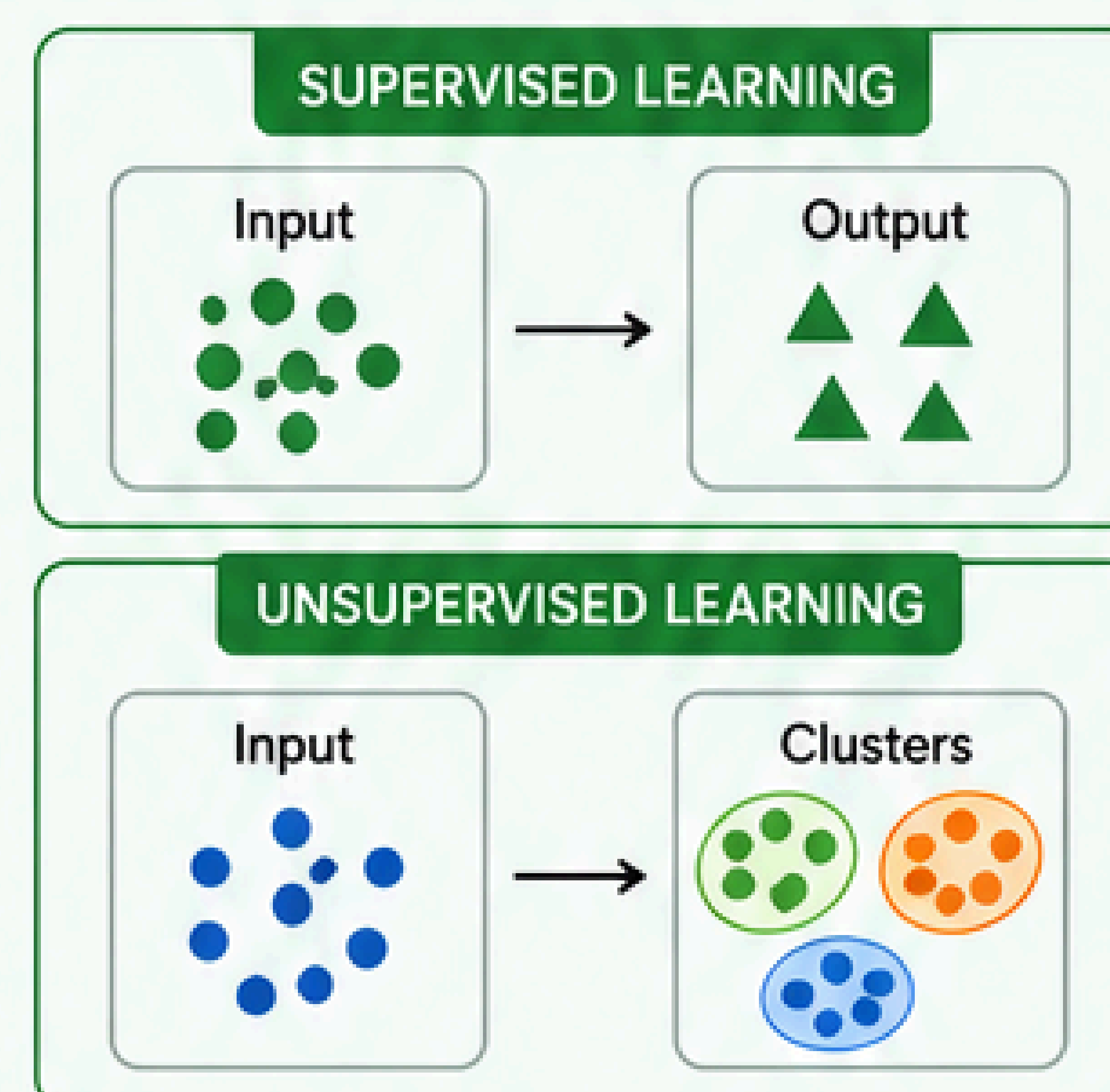
Machine Learning Algorithms

- Linear Regression
- Logistic Regression
- Decision Trees
- Random Forest
- Support Vector Machines (SVM)
- K-Nearest Neighbors (KNN)
- Naive Bayes
- K-Means Clustering
- Principal Component Analysis (PCA)



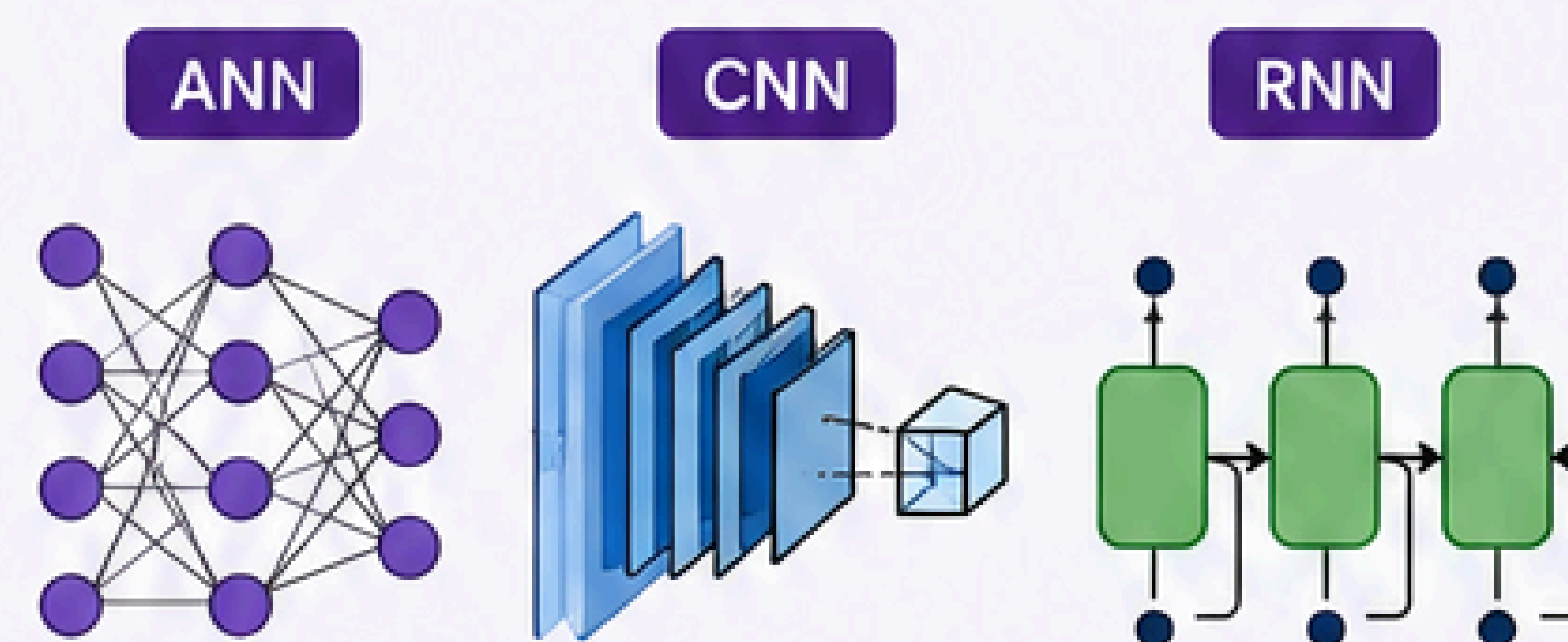
Supervised & Unsupervised Learning

- Supervised Learning: Classification, Regression
- Unsupervised Learning: Clustering, Dimensionality Reduction
- Train-Test Split & Cross Validation
- Evaluation Metrics & Model Tuning



Deep Learning (Neural Networks, CNN, RNN)

- Artificial Neural Networks (ANN)
- Convolutional Neural Networks (CNN)
- Recurrent Neural Networks (RNN)
- Long Short-Term Memory (LSTM)
- Activation Functions
- Loss Functions & Optimization
- Backpropagation

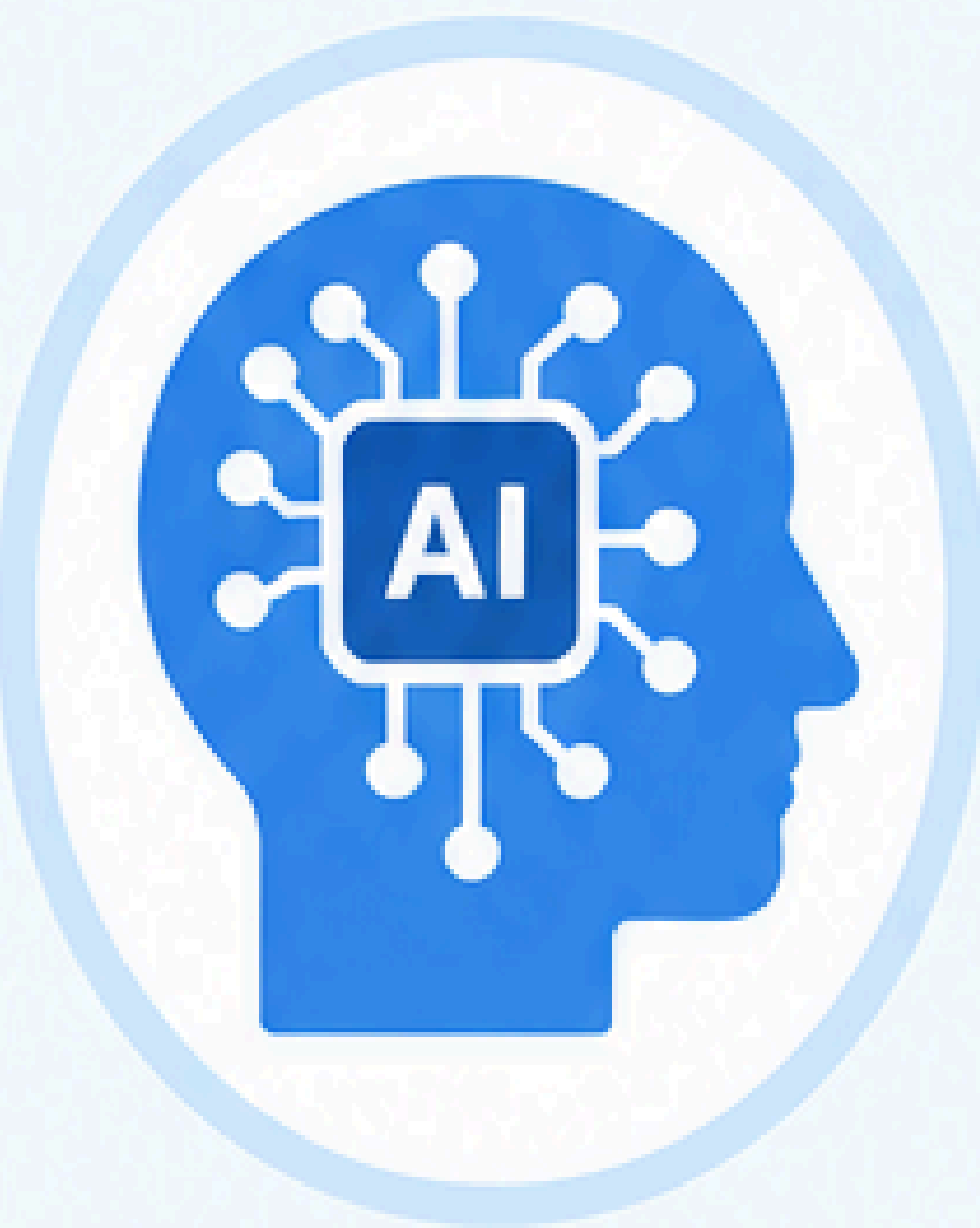


Frameworks: TensorFlow / PyTorch

- TensorFlow Basics
- Building Models with TensorFlow
- PyTorch Basics
- Building Models with PyTorch
- Model Training & Deployment
- GPU Acceleration

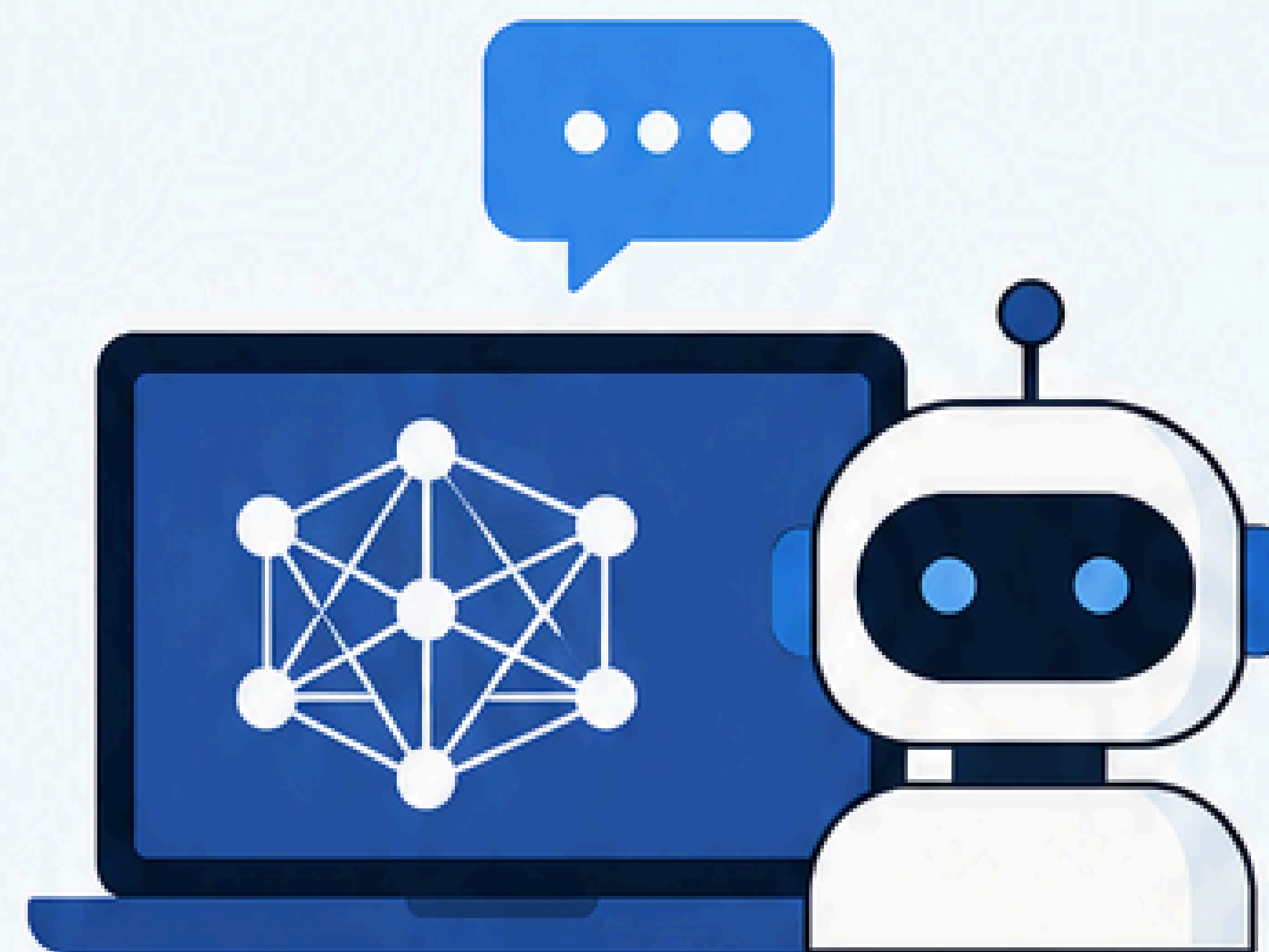


PHASE 5



● Introduction to AI Models

- What is Artificial Intelligence?
- Types of AI: Narrow AI, General AI
- How AI Models Work
- Key AI Model Architectures
- Applications of AI in Real World

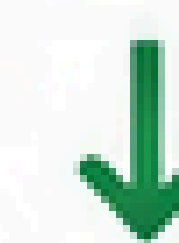


● LLMs & Prompt Engineering

- What are LLMs?
- How LLMs Understand & Generate Text
- Prompt Engineering Basics
- Advanced Prompting Techniques
- Best Practices for Prompt Design

Prompt

Explain the importance of machine learning in simple terms.



Response

Machine learning allows computers to learn from data and make decisions without being explicitly programmed.



● Tools: OpenAI APIs, LangChain

- OpenAI API: Overview & Setup
- Working with Chat Completions, Embeddings
- Introduction to LangChain
- Chains, Memory, Agents
- Integrating LLMs with External Data & Tools

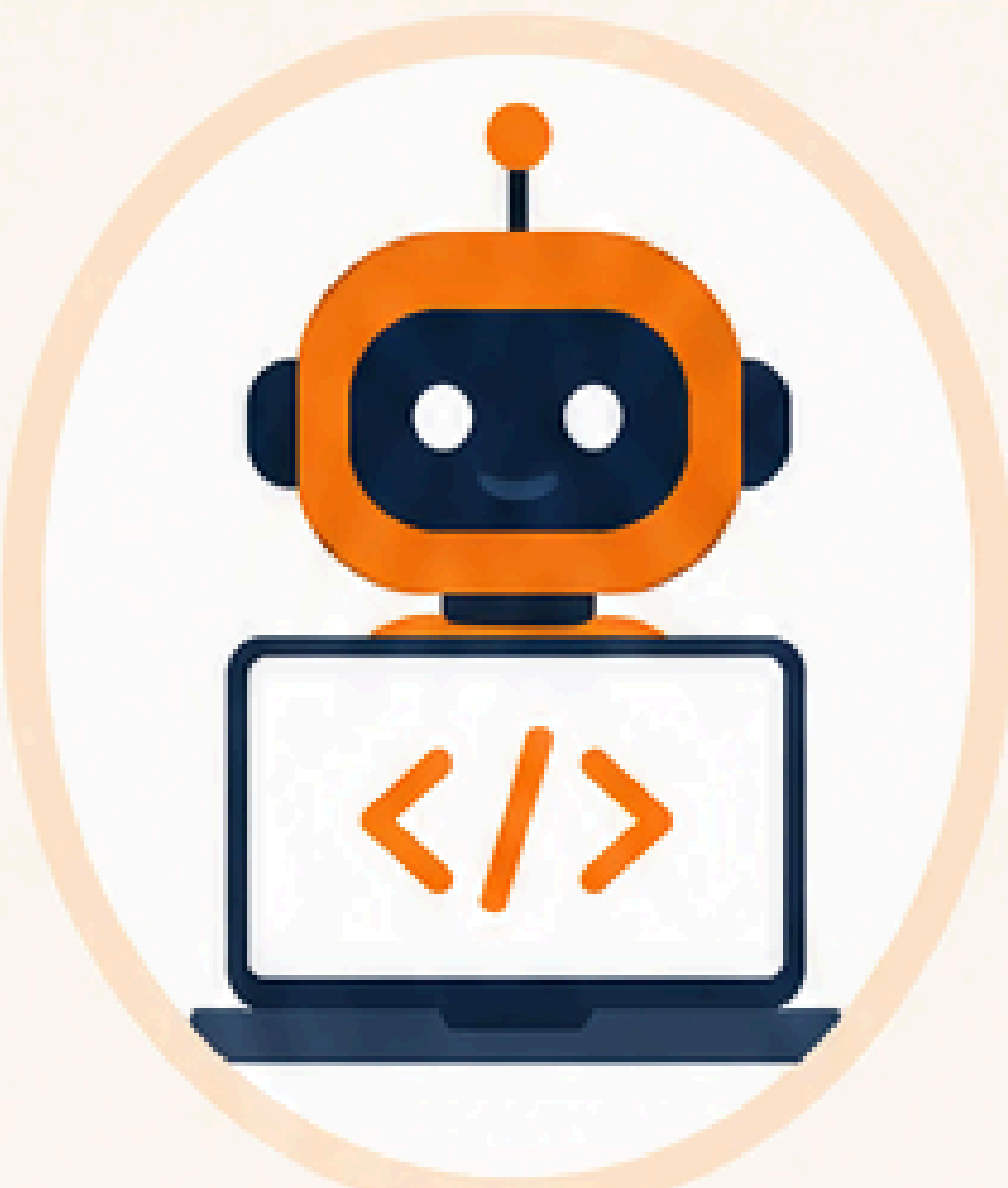


OpenAI API



LangChain

```
from langchain import OpenAI, LLMChain
llm = OpenAI()
chain = LLMChain(llm=llm)
response = chain.run("Explain AI in one sentence.")
```



● AI-based Projects

- AI Chatbot with Memory
- PDF/Q&A Assistant
- AI Blog Writer
- Text Summarizer
- AI Image Caption Generator
- Personal AI Assistant

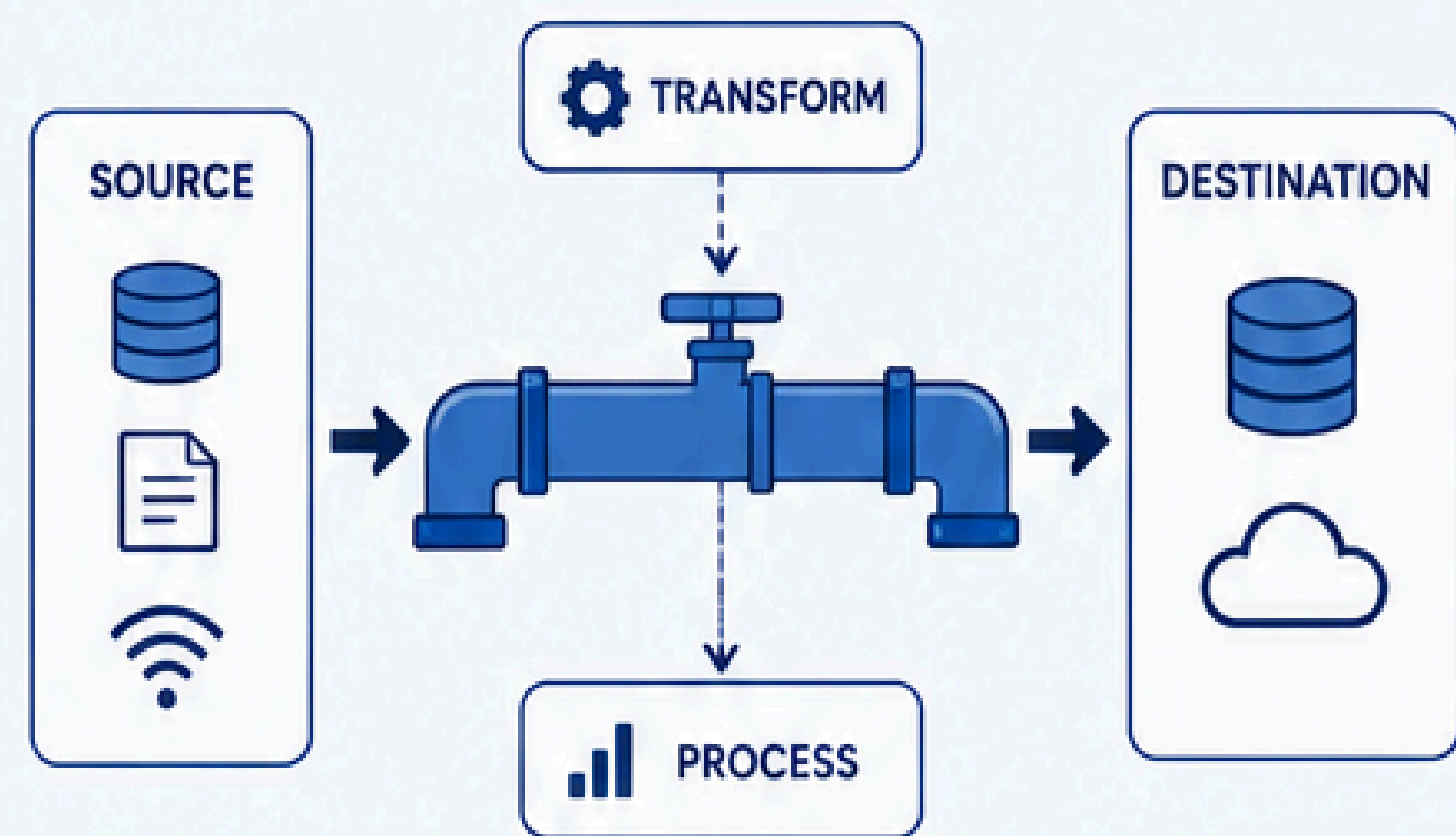


PHASE 6



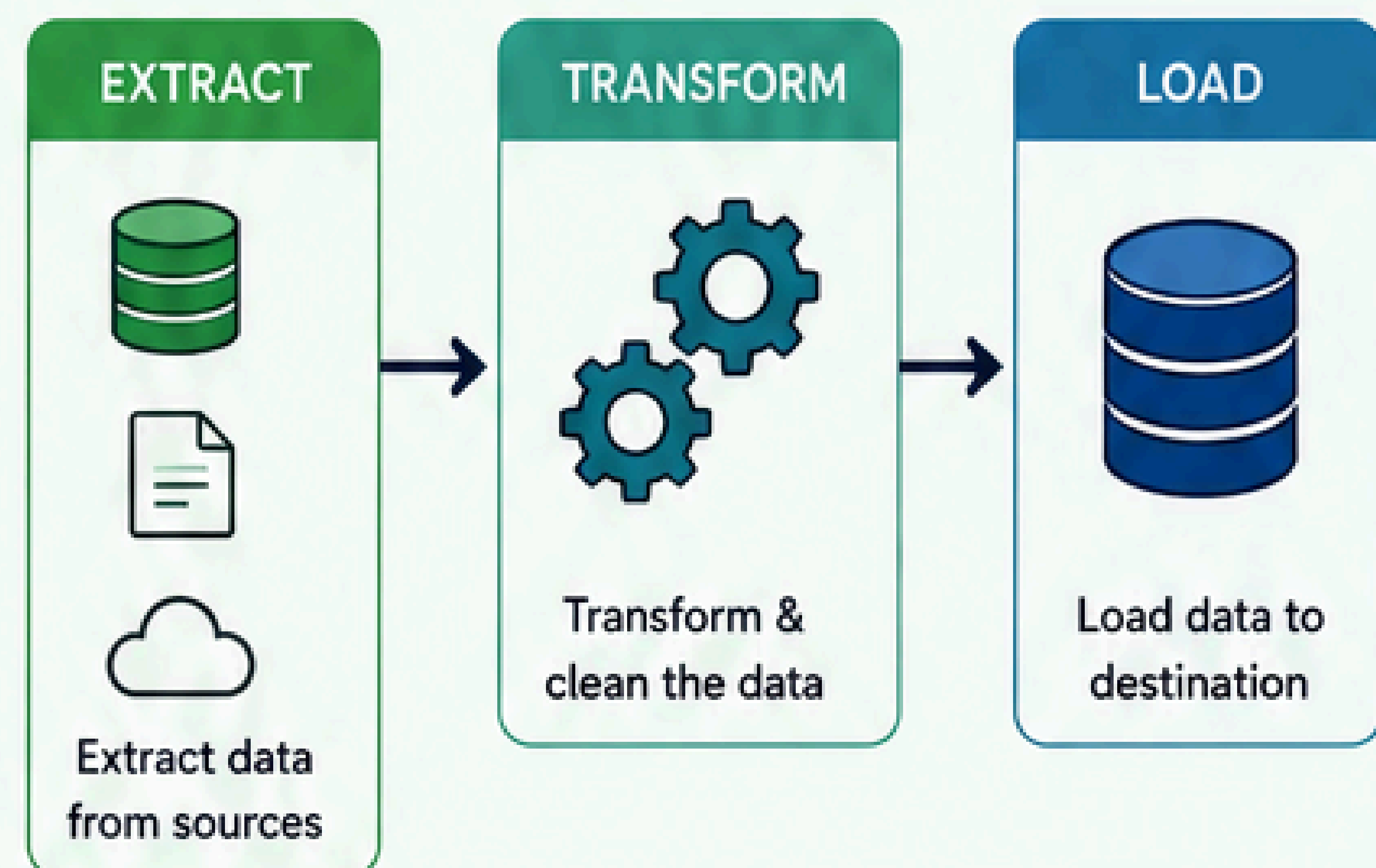
• Data Pipelines

- What is a Data Pipeline?
- Batch vs Stream Processing
- Pipeline Architecture
- Data Ingestion Techniques
- Data Transformation
- Data Quality & Monitoring



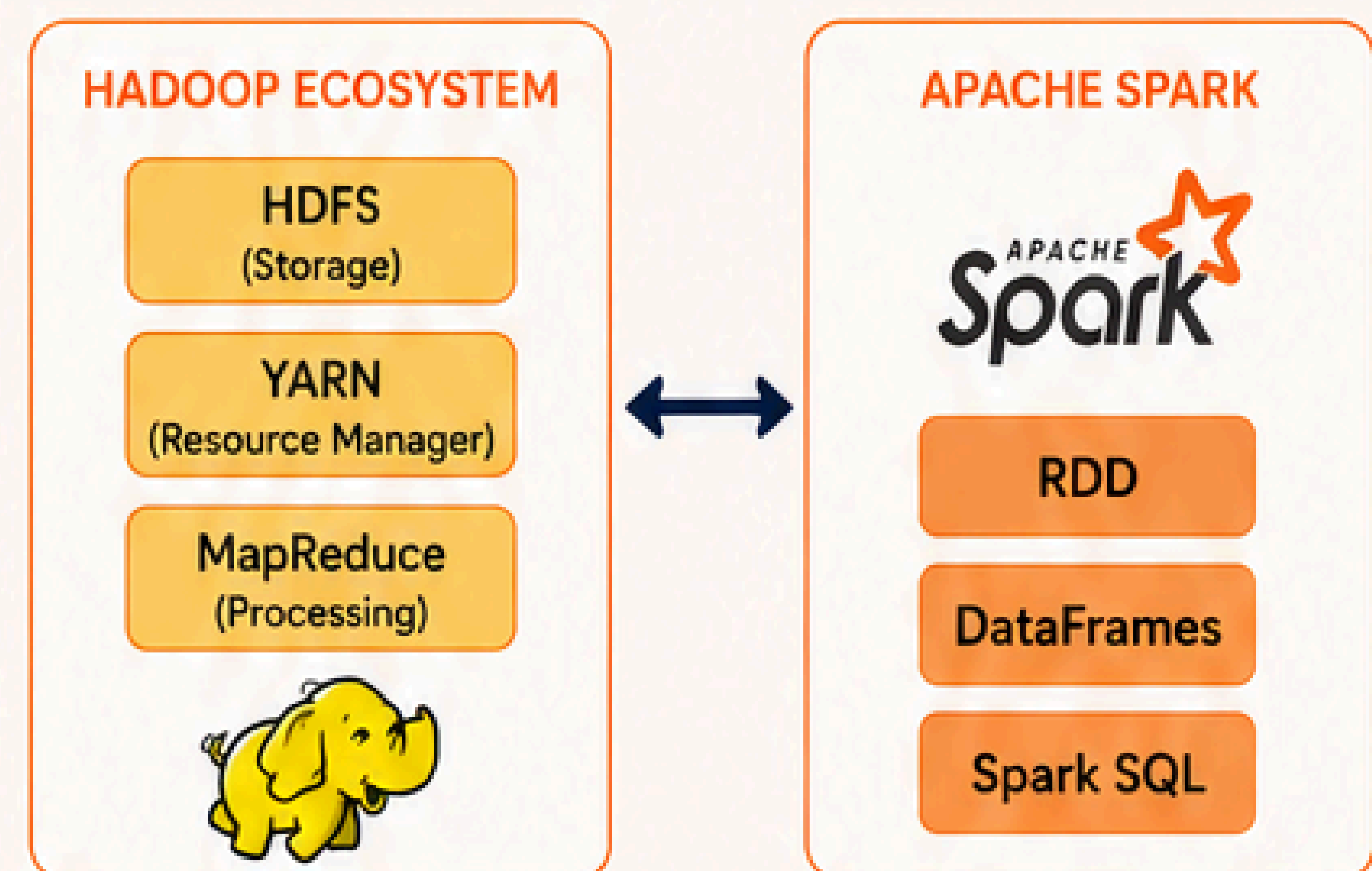
• ETL Processes

- Extract, Transform, Load
- ETL Workflow
- Data Cleaning & Validation
- Scheduling & Automation
- ETL Tools: Apache NiFi, Talend, Airflow Basics



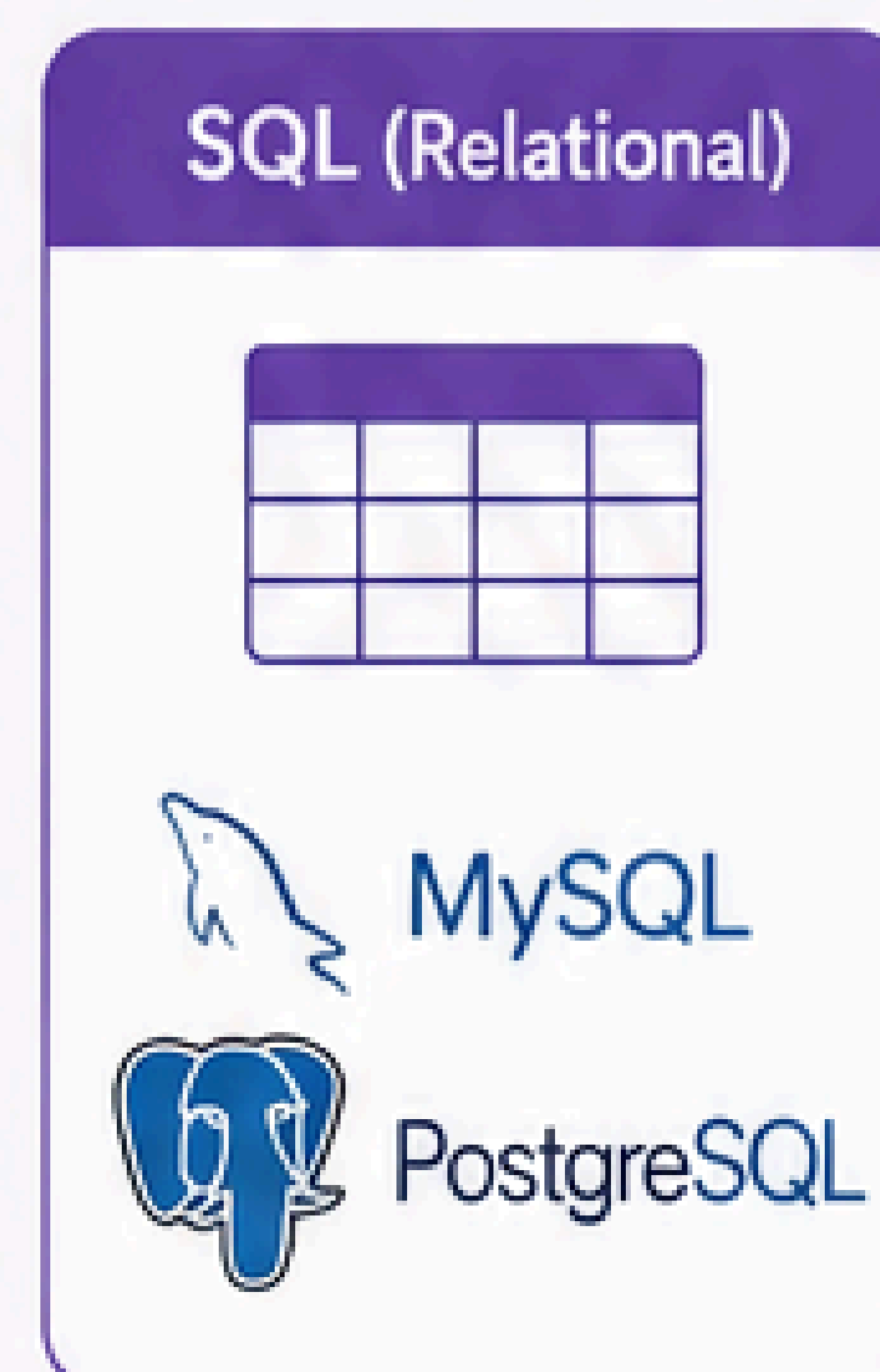
• Big Data Tools (Hadoop, Spark basics)

- Introduction to Big Data
- Hadoop Ecosystem Overview (HDFS, YARN)
- MapReduce Basics
- Apache Spark: RDD, DataFrames, Spark SQL
- Use Cases & Applications

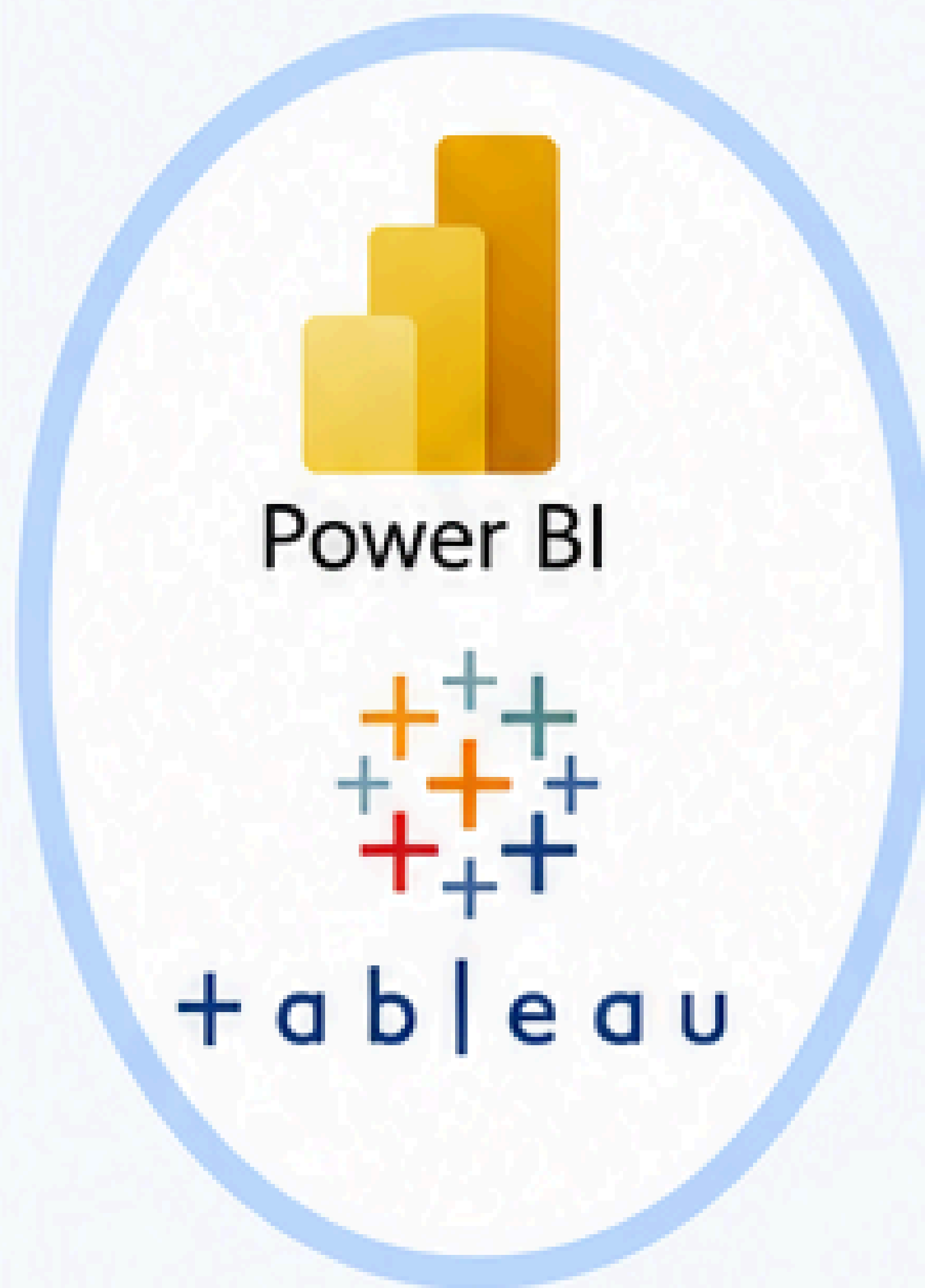


• Database Management (SQL, NoSQL)

- Relational Databases: MySQL, PostgreSQL Basics
- SQL: Queries, Joins, Subqueries, Aggregations
- NoSQL Databases: MongoDB Basics
- Data Modeling & Normalization
- Indexing & Performance Optimization

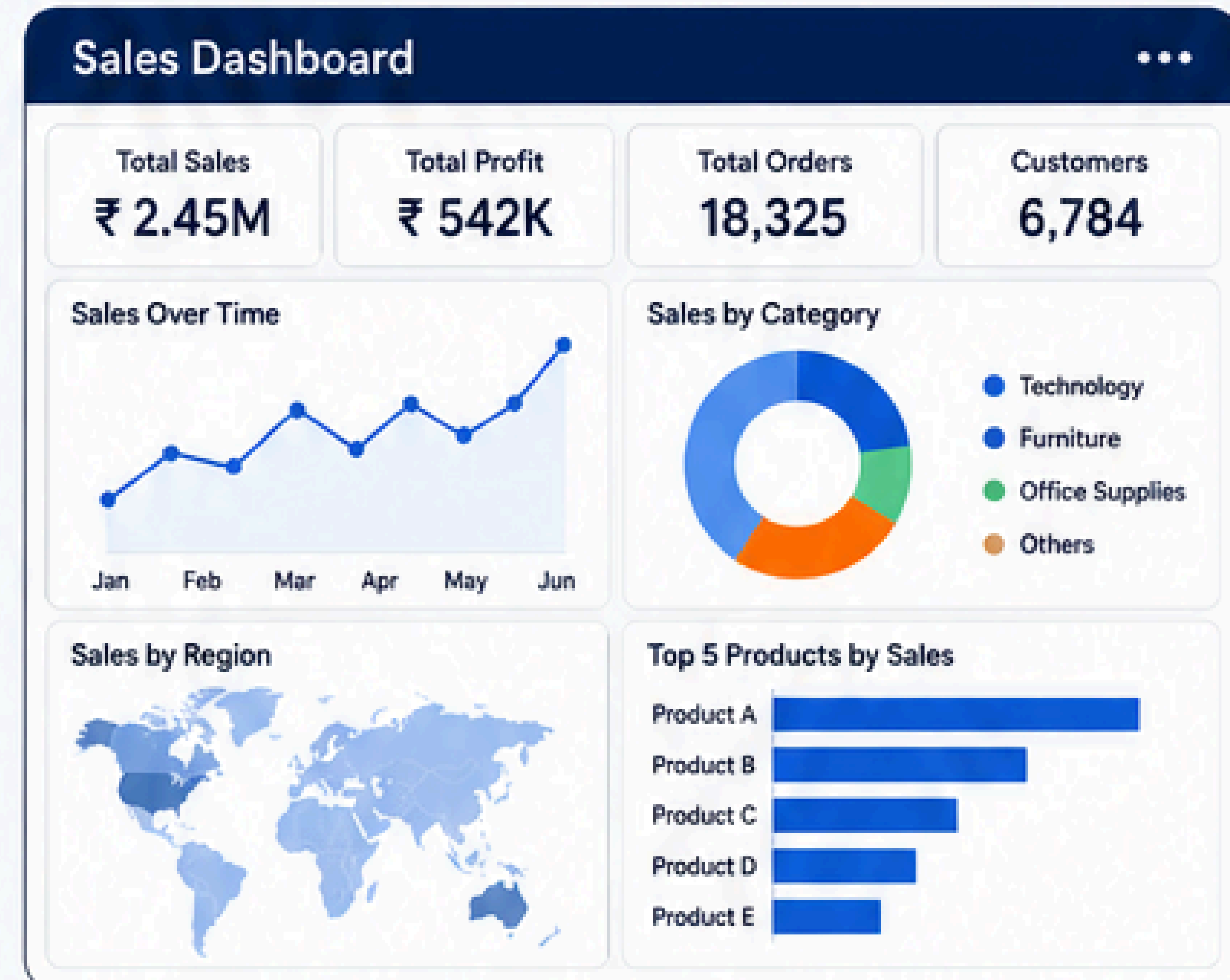


PHASE 7



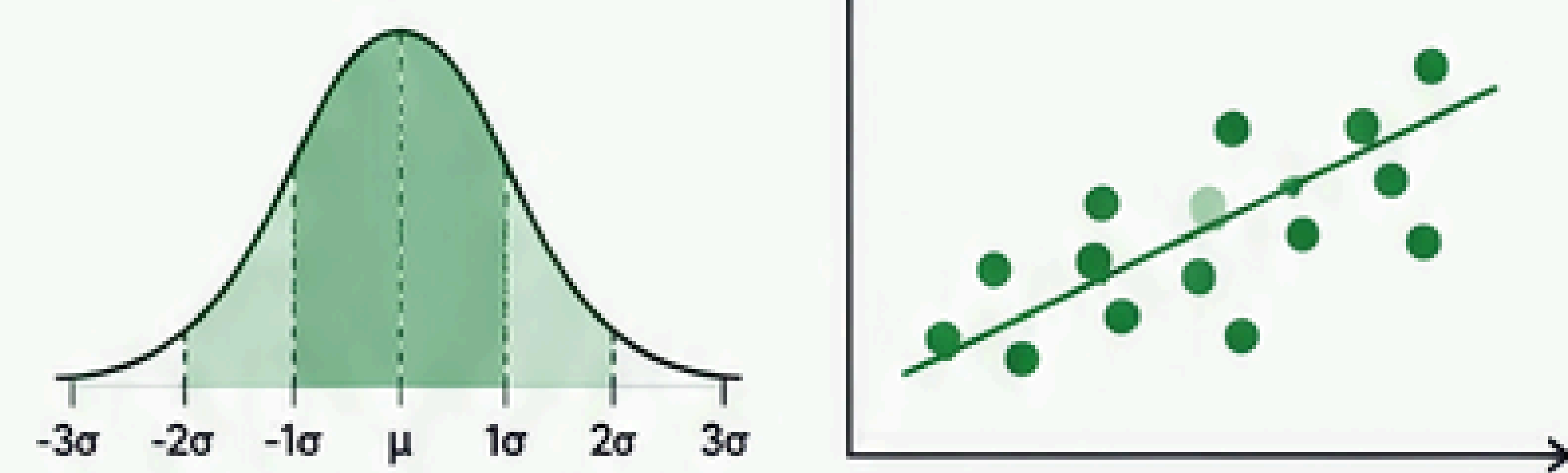
Data Visualization (Power BI / Tableau)

- Introduction to Data Visualization
- Power BI: Overview & Interface
- Tableau: Overview & Interface
- Data Connections & Data Shaping
- Creating Charts & Visuals
- Filters, Slicers & Drill Through
- Reports, Pages & Storytelling
- Best Practices in Visualization



Statistics & Business Insights

- Descriptive Statistics
- Inferential Statistics
- Probability Distributions
- Hypothesis Testing
- Correlation & Regression
- Business KPIs & Metrics
- Deriving Insights from Data
- Data-Driven Decision Making



Key Business Insights

- Understand Trends
- Identify Opportunities
- Improve Performance



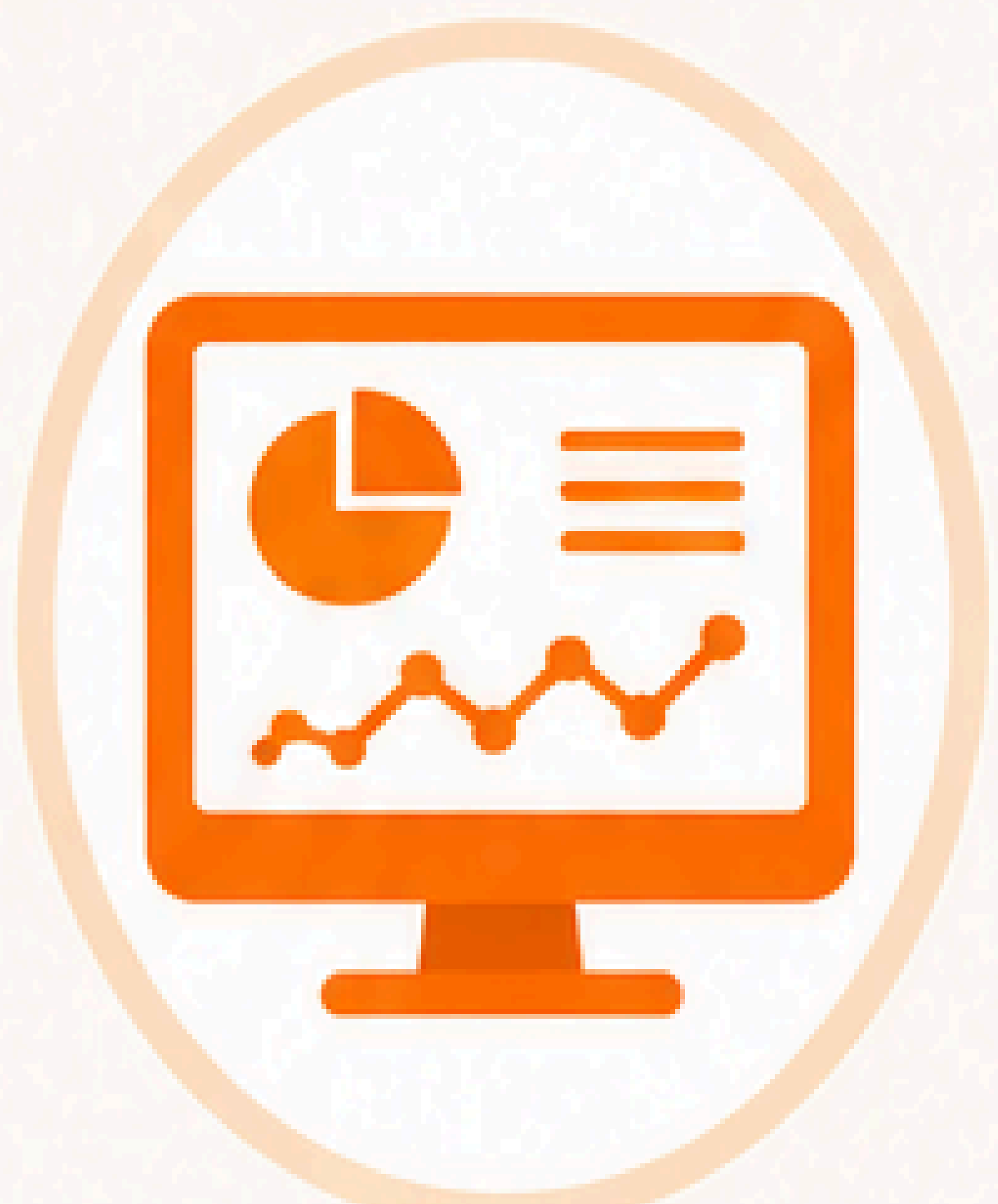
Excel Advanced

- Advanced Formulas: IF, IFS, INDEX, MATCH, XLOOKUP
- Pivot Tables & Pivot Charts
- Power Query (Get & Transform)
- Data Validation & Conditional Formatting
- What-If Analysis (Goal Seek, Scenario Manager)
- Lookup Functions & Text Functions
- Macros & Basic VBA
- Power Pivot & Data Model Basics

fx =XLOOKUP(A2,Table1[ID],Table1[Sales])

ID	Product	Sales
101	Laptop	55,000
102	Mobile	28,000
103	Tablet	18,000
104	Monitor	15,000
Grand Total		1,16,000

- Power Query
- Pivot Table
- Charts
- Conditional Formatting
- VBA Macros



Dashboard Projects

- End-to-End Dashboard Development
- Interactive Dashboards
- KPIs, Metrics & Scorecards
- Dynamic Filters & Slicers
- Data Storytelling & Insights
- Real-world Business Use Cases
- Publish & Share Dashboards

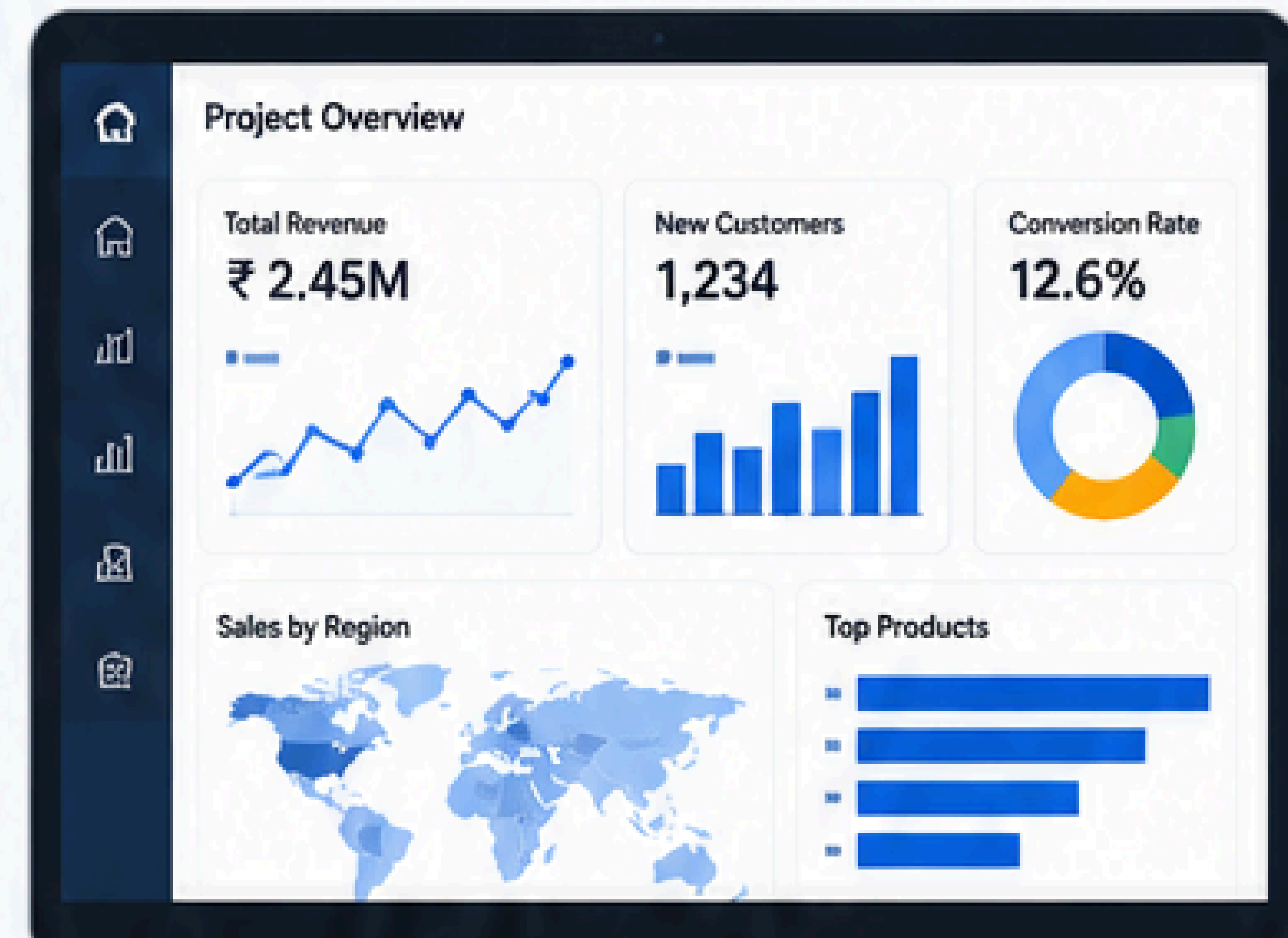


PHASE 8

• Real-world Industry Projects



- End-to-End Project Development Lifecycle
- Data Collection & Preprocessing
- Exploratory Data Analysis (EDA)
- Model Building & Evaluation
- Deployment & Monitoring
- Industry Domains:



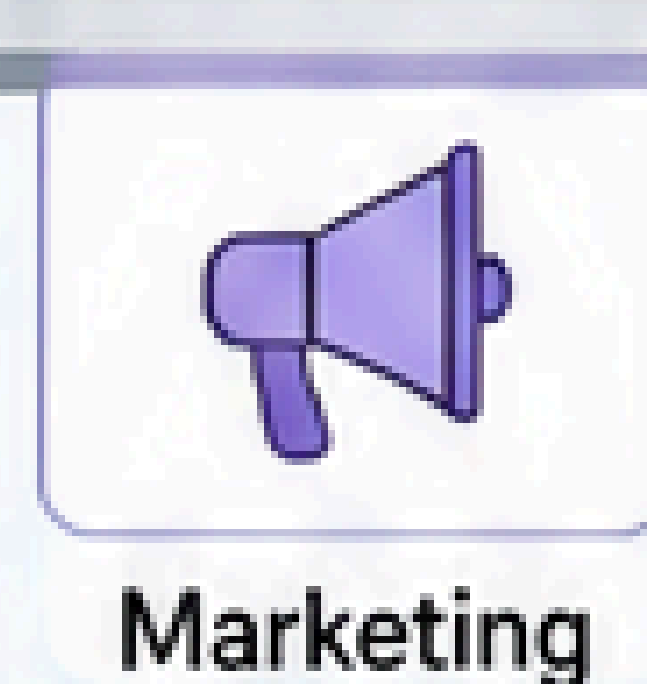
Retail



Finance



Healthcare



Marketing

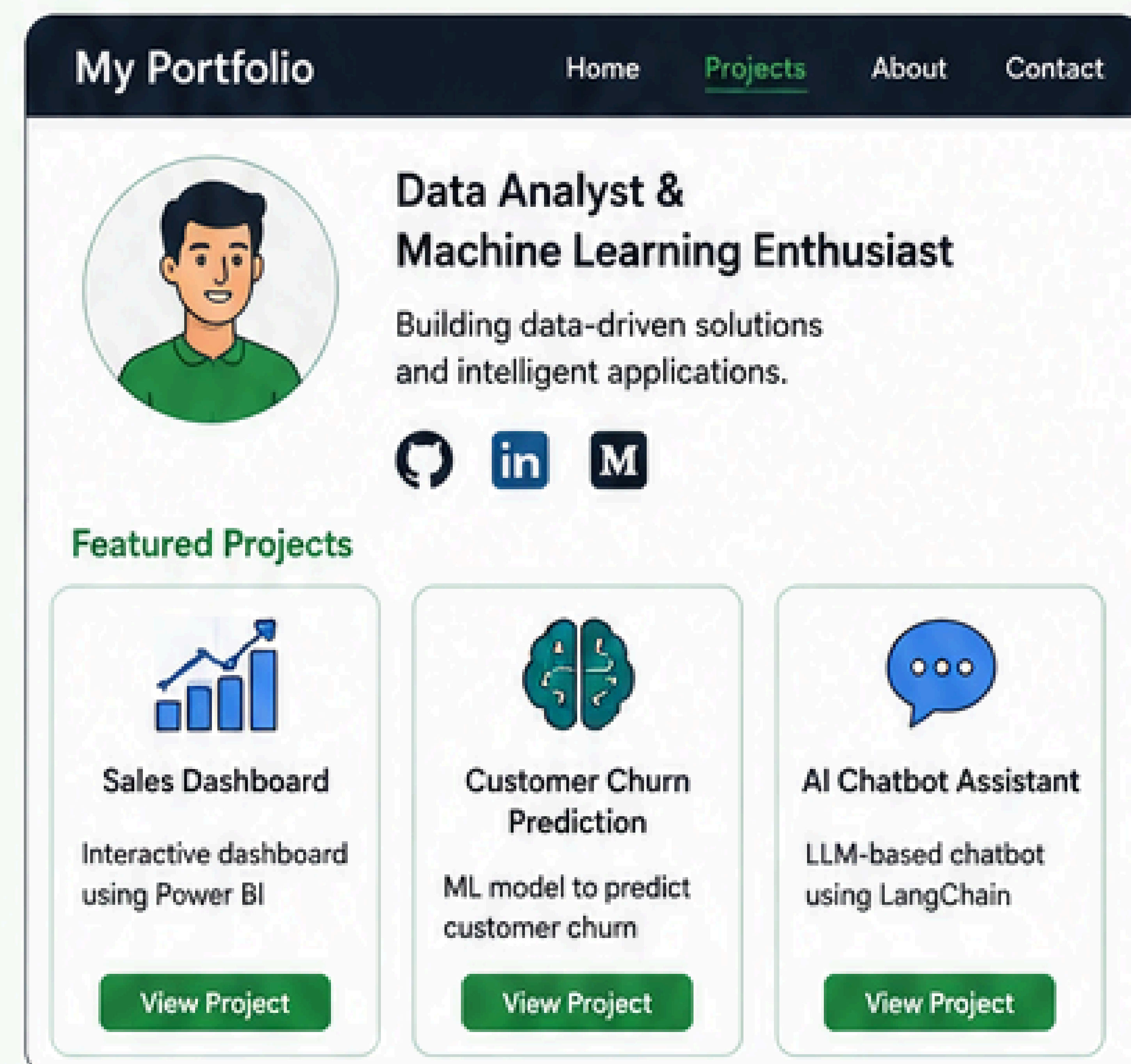


Manufacturing

• Portfolio Building



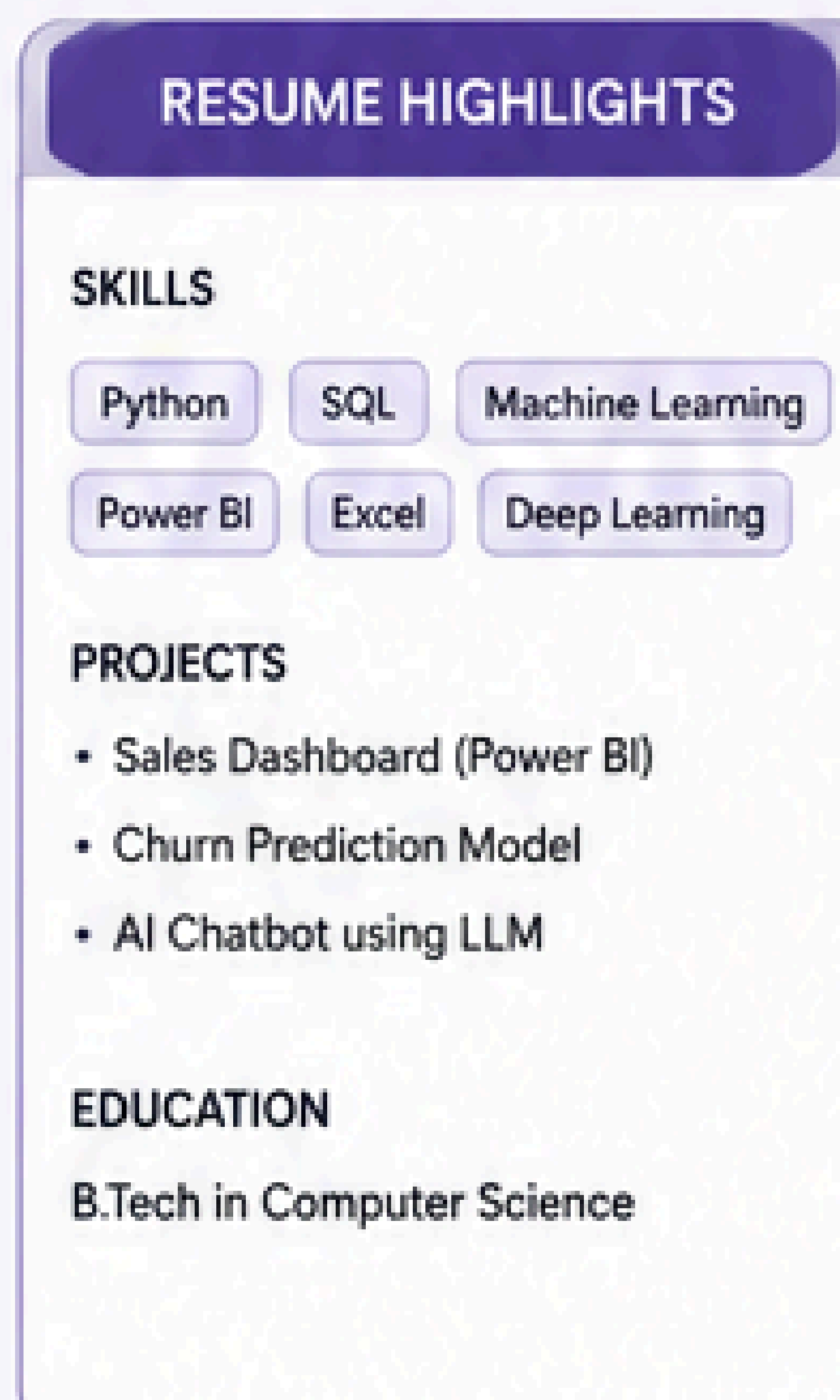
- Showcase Your Projects Effectively
- GitHub Portfolio Setup
- Project Documentation (README, Report, Code)
- Case Studies & Blog Writing
- Deployed Projects Showcase
- Personal Branding & Online Presence (LinkedIn, GitHub)



• Resume + Interview Preparation



- Resume Building & Formatting
- Highlight Projects & Skills Effectively
- Cover Letter & LinkedIn Optimization
- Aptitude & Logical Reasoning
- Technical Interview Preparation (DSA, SQL, ML)
- Behavioral & HR Interview Tips
- Mock Interviews & Feedback
- Placement Strategy & Job Search



Build → Learn → Apply → Showcase → Get Hired



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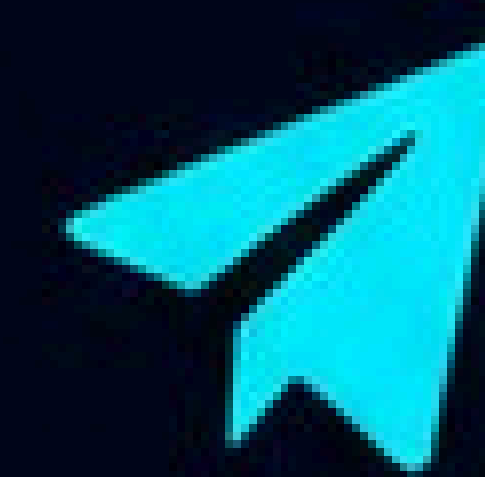
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**LinkedIn
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