Learnbay

Data Analytics & Business Analytics

WITH GENAI

In collaboration with

IBM

Vishlesan I-HUB Foundation
IIT Patna

Program Summary

A 6-month live, practitioner-led program designed to transform working professionals into data-driven decision makers using Data Analytics, Business Analytics, and Generative AI. The program is delivered in collaboration with Vishlesan I-Hub Foundation, IIT Patna.

By the end, you'll:

Build end-to-end analytics solutions	Apply GenAI to analytics workflows	Create business impact with data	Earn global and startup-recognized credentials

Who is this program for?

Business & Domain Professionals

1–10+ years
Apply analytics to finance, marketing, operations, HR, supply chain, and strategy roles.

Managers, Leaders & Entrepreneurs

5–10+ years
Leverage analytics and GenAI to guide teams, evaluate opportunities, and drive data-backed decisions.

Program Overview

Data Analytics & Business Analytics

6 Months
Flexible batches

100% Live
Instructor-led

IIT Patna & IBM
Certified Program for Professionals

No Cost EMI
Interest-free

Career Services Pro

Resume Help

Mock Interviews

Job Referrals

1 How this course prepares you for **Career growth & transition in Analytics**?

It helps you transition into **data-driven roles** by building on your existing professional and domain experience.

The role isn't disappearing. The skill bar is moving up.

Today's high-impact professionals are expected to:

Translate business questions into data insights

Build analytics & GenAI-powered decision systems

Use GenAI to accelerate analysis & reporting

2 How does this course accelerate your growth in the **AI-powered analytics world?**

Because it upgrades how you think with **data, derive insights, and influence decisions**. This course accelerates growth by shifting you from reporting numbers to driving AI-enabled business outcomes.

3-YEAR CAREER TRAJECTORY

Without Data + GenAI

Yr 1

Yr 2

Yr 3

OPERATIONAL ROLES

+10% hike

RECOMMENDED

With Data Analytics + GenAI

Yr 1

Yr 2

Yr 3

HIGH-IMPACT, AI-ENABLED ROLES

+58% hike

Alumni Spotlight
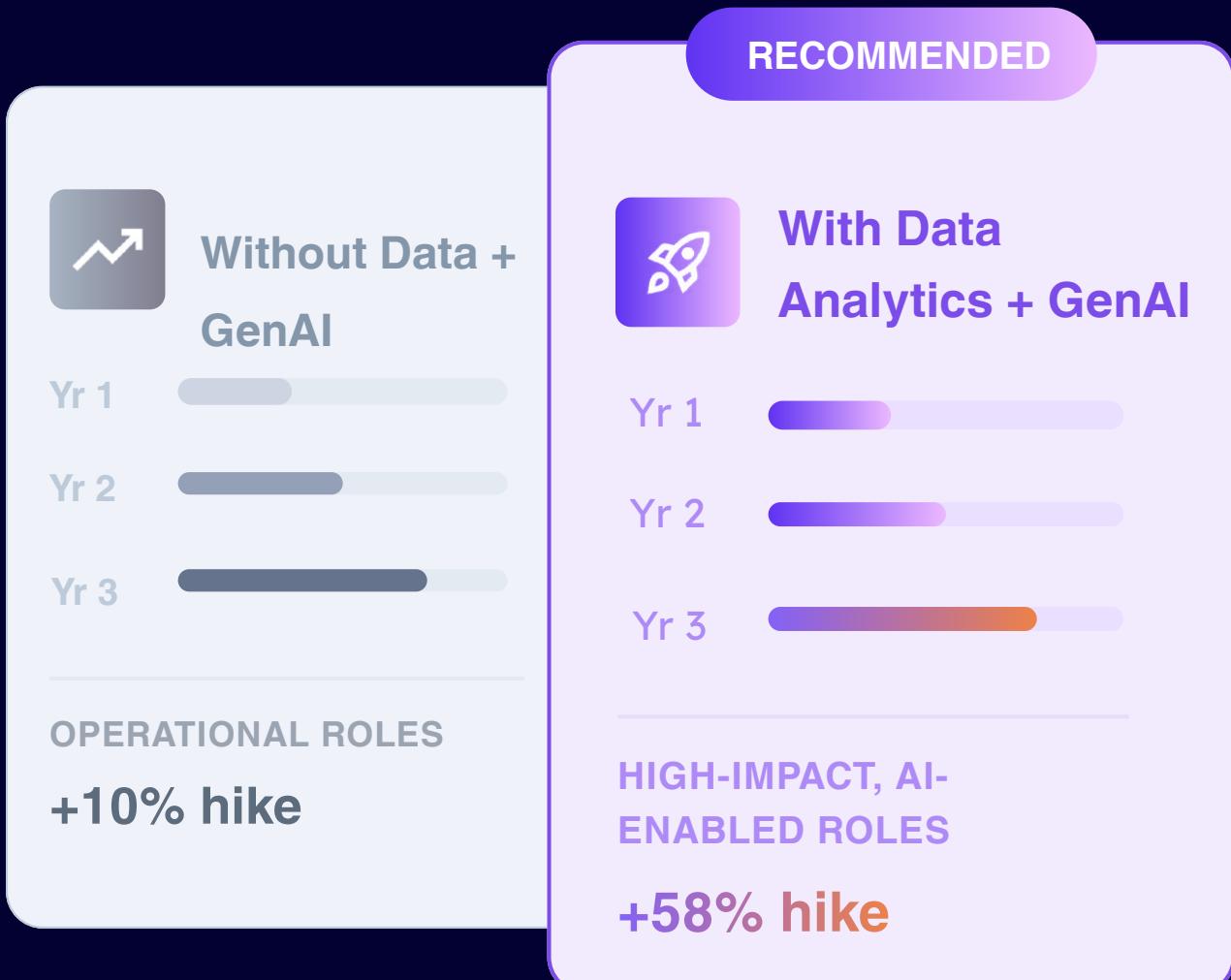
Thanks to the Learnbay data science course & excellent guidance, I was able to ace the TCS interview and secure a job with a 210% pay raise. The real-world time projects helped me develop my concepts as a data scientist.

Mohd. Israr
Data Scientist

| Mechanical Domain → Data Scientist @ | tcs | 📈 230% Salary Hike |

When I joined Learnbay I did not have any knowledge apart from the very basics. I gradually build my concept via various trainers and get trained in data science with strong knowledge/concepts.

Saurabh Kumar
Data Scientist

| Mathematics Professor → Data Scientist @ | Teleperformance | 📈 135% Salary Hike |

Aravind

TheMathCompany → CATERPILLAR

Data Scientist

Ritesh Kumar

unacademy → Capgemini

Senior Analyst

Ramki

cognizant → ANBSYSTEMS a DNV company
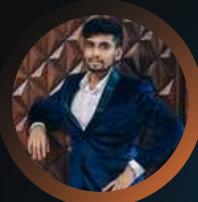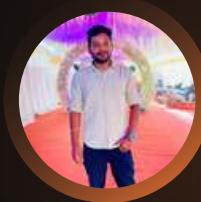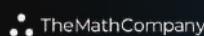
Data Analyst

Success Story

Mahasweta Sarkar
Data Analytics Consultant

Capgemini

Manoj Kuna
Data Analysis Engineer

gm general motors

Bhavin Shah
Data Analyst

KPMG
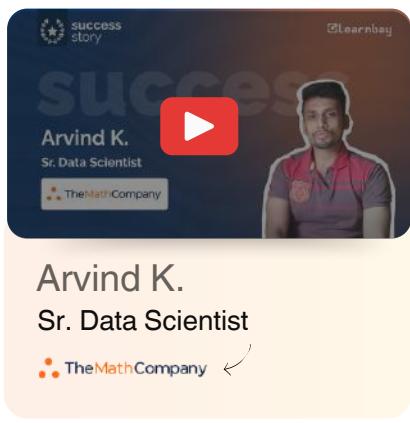
Arvind K.
Sr. Data Scientist

TheMathCompany

Nandini Devi Muthu
Data Analyst
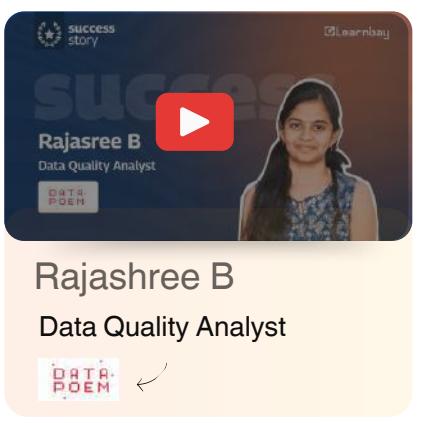
Rajashree B
Data Quality Analyst

DATA POEM
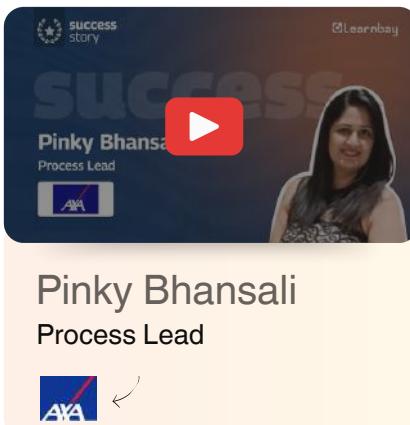
Pinky Bhansali
Process Lead

AXA
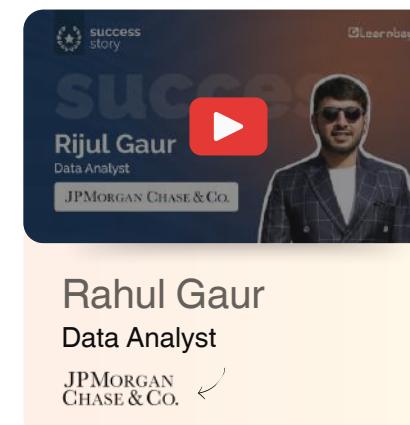
Rahul Gaur
Data Analyst

JPMorgan Chase & Co.

Jaya Sinha
Data Scientist

amazon

3 Job Referral & Career Acceleration

No cold applications. Your profiles goes straight to decision makers

We refer you directly to hiring companies

WHAT THIS MEANS FOR YOU

Skip the ATS Black hole
Your resume reaches Humans not Algorithms

Access Exclusive Opening
Roles not posted to job boards

Matched to your skills
Job which is aligned to your profile and domain

4 Prepare to **ace** the interview

Get interview ready with expert guidance

Mock Interviews
5 Session with Industry Expert

✓ Multiple Technical and HR Round with detailed feedback

AI-Optimized Resume
ATS-friendly and Job ready

✓ Optimized to highlight your technical skills and domain expertise

Complete Support until Placed

We're with you in every step

5 What sets this program apart?

3-Year Flexible Subscription

Re-enter, upgrade, and refresh skills as data & AI evolve.

AI CoLab Experience

Work on real startup & enterprise-grade data + GenAI projects.

Earn 2 AI CoLab Certificates.

BYOP + Mentorship

Bring your own domain or business problem. Get 1:1 expert guidance to turn it into a data solution.

Industry Certification

Earn globally recognised credentials backed by IBM and Microsoft.

Program Certification

Certification from IIT Patna

Vishlesan I-Hub Foundation, IIT Patna enables hands-on innovation exposure and real-world Data Analytics & AI problem-solving.

Certification from IBM

Earn an i**ndustry-recognized IBM Certification** validating your expertise in enterprise-grade Data Analytics and Business Analytics.

AI Startup Certificate

Why it matters:
This is your practical experience credential proof that you can use AI in the real world to solve actual problems.

Program Syllabus

Foundations of AI Reasoning & LLM Workflows

Gemini Pinecone LangChain LlamaIndex huggingface_hub Llama 3 Notion AI Claude

You'll Learn:

- How modern AI models **process**, **predict**, and **reason**.
- **Prompt engineering** for task control (role-based, few-shot, chain-of-thought).
- **Tokenization**, embeddings, and contextual memory for intelligent responses.
- **Retrieval-Augmented Generation (RAG):** connecting private data to LLMs.
- **Ethics**, safety, and bias mitigation in AI responses.
- **Evaluating AI outputs** using qualitative and quantitative metrics.

Project: **AI Knowledge Assistant** — Build an intelligent chatbot that retrieves and summarizes information from custom documents.

Outcome: **Confidently build and tune LLM**-based assistants and foundation-model workflows using natural language.

Program Syllabus

Generative & Multimodal AI for Real-World Content

You'll Learn:

- **Text-to-image**, **text-to-video**, and **text-to-audio** generation.
- Understanding **diffusion** and **multimodal** creativity.
- Building content workflows: **ideation** → **generation** → **feedback** → **iteration.**
- Using **AI for brand assets**, marketing visuals, and learning design.
- **Applying AI ethics in synthetic media** and responsible creation.

Project: AI Content Studio — Build an AI system that produces marketing visuals, ad scripts, or video explainers aligned with brand guidelines.

Outcome: Create consistent, high-quality multimedia content using GenAI tools — without coding.

Program Syllabus

Agentic AI & Intelligent Automation
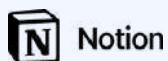
You'll Learn:

- Fundamentals of **autonomous agents** and multi-agent reasoning.
- **Task decomposition** and tool calling for business workflows.
- **Connecting CRMs**, spreadsheets, and communication platforms.
- Using "**Vibe Coding**" to describe logic naturally for agents.
- **AI task chaining** and feedback loop automation.
- **Integrating AI** insights into daily business processes.

Project: AI Workflow Co-Pilot — Create an automation system that reads data, triggers tasks, and delivers daily AI summaries or reports.

Outcome: Build adaptive agents that plan, reason, and automate end-to-end workflows with minimal human input.

Program Syllabus

No-Code App Development & AI Deployment
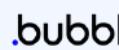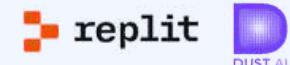
You'll Learn:

- **Low-code** and **no-code** app creation with AI integration.
- **Connecting APIs**, embeddings, and vector stores to create user-ready products.
- Designing **front-end interfaces** for **chatbots** and **copilots**.
- Testing endpoints, **debugging**, and managing data securely.
- **Collecting user feedback** and improving model performance.

Project: AI Assistant Web App — Build and deploy an interactive web-based chatbot or business assistant connected to your AI workflows.

Outcome: Deploy a functional, web-accessible AI solution usable by teams or clients.

Program Syllabus

AIOps, Optimization & Observability

Pika | Vertex AI | Amazon SageMaker | Hugging Face | Power BI | Rows | ClickUp Brain
slack | Notion

You'll Learn:

- **AIOps essentials:** monitoring, observability, and self-healing pipelines.
- **Defining KPIs for AI** performance (accuracy, latency, cost, drift).
- Automating alerts, testing, and continuous improvement.
- Visualizing AI usage and cost with **BI dashboards.**
- **AI governance** and compliance considerations in production.

Project: AIOps Dashboard — Create a performance monitoring dashboard that tracks AI output quality, latency, and cost metrics.

Outcome: Understand how to monitor, optimize, and maintain AI solutions in real-world environments.

Program Syllabus

Startup Collaboration Capstone: AI CoLab Experience

Combination of previously learned tools based on project type.

You'll Learn:
- Build your own AI product with **startup companies**.
- Product thinking and end-user problem solving.
- **Cross-functional teamwork:** business + tech + creative roles.
- Documenting, presenting, and pitching your AI solution.

Project: Bring everything you've learned together by building a complete AI-powered solution whether it's an automation workflow, a co-pilot, a domain-specific AI assistant, or a full no-code web app.

Outcome: By the end of this capstone, you will graduate with a startup-ready AI product, plus a verified Startup Experience Certificate through the AI CoLab partnership.

Program Syllabus
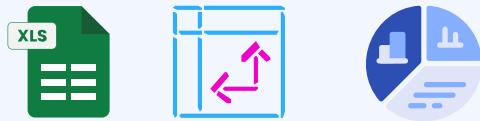
Excel

**You'll Learn:** Analytics Essentials with Excel

- **Excel Basics & Core Functions: Interface**, data types, formulas
- Lookup functions, conditional functions, and text functions.
- **Data Preparation & Cleaning: Import**/export, missing data handling, validation, formatting
- Power Query for cleaning & automation.
- Statistical & Analytical Techniques: Descriptive statistics, exploratory analysis, filters/sorting, what-if analysis, goal seek.
- **Pivot-Based Analysis:** PivotTables for summarization, grouping, segmentation, slicers, and data-driven insights.

Project: **Employee Performance & Attrition Dashboard:** Build an Excel dashboard to analyze employee performance, satisfaction, and attrition patterns for workforce decisions.

Program Syllabus

Excel

You'll Learn: **Visualization & Advanced Analytics**

- **Charts & Visualization Methods:** Bar, line, pie, scatter, combo charts, advanced charting, conditional formatting for insights.
- **Interactive Dashboards:** PivotCharts, KPI visuals, storytelling layouts, mini dashboard creation.
- **Data Modeling & Power Tools:** Power Pivot, relationships, basic DAX concepts, Excel add-ins for extended analytics.
- **Projects & Applications:** Business case studies, forecasting, reporting mini-projects, and real-world analytics workflows.

Project: **Business Performance Insights Dashboard**
Analyze a real business dataset using Excel charts (bar, line, scatter, combo), apply conditional formatting for insights, build an interactive dashboard with PivotCharts and KPIs, and use Power Pivot with basic DAX for forecasting and decision-ready reporting.

Program Syllabus

Term 8 – Week 18-21

SQL (Structured Query Language)

You'll Learn: **SQL Fundamentals**

- **Core SQL & RDBMS Basics:** Syntax, data types, tables, CRUD operations, querying single tables.
- **Filtering & Retrieval:** WHERE, ORDER BY, DISTINCT, logical operators, formatting results.
- **Joins & Multi-Table Queries:** INNER, LEFT, RIGHT, FULL, CROSS joins, UNION, subqueries, nested queries.
- **Aggregations & Analytics:** GROUP BY, HAVING, summary stats, ranking functions, Top-N analysis.

Advanced SQL for Analytics

- **Views & Modifications:** INSERT/UPDATE/DELETE, creating views, inline views.
- **Optimization:** Indexes, execution plans, performance tuning.
- **Advanced Database Concepts:** Normalization, stored procedures, functions, triggers, user-defined objects.
- **SQL in Practice:** Integrating SQL with Python, advanced analytical queries for real datasets.

Project: **SQL Sales Aggregator**
Write complex SQL queries to aggregate and analyze sales data from a relational database.

Program Syllabus

PowerBI

You'll Learn: **Power BI Essentials**

- **Data Prep with Power Query:** Clean, transform, merge, unpivot, format text/date/number fields.
- **Data Modeling:** Relationships, granularity, aggregations, time-series basics, calculated columns.
- **Core Visuals & Interactivity:** Bar, pie, line, maps, cards, slicers, filters, drill-down, bookmarks.
- **Connecting & Working with Data:** Load from Excel/SQL, model views, query editor, BI best practices.

Visuals, Dashboards & DAX Analytics

- **Advanced Visuals:** Funnel, ribbon, waterfall, treemap, gauge, scatter, KPIs & combos.
- **DAX for Analytics:** Measures, calculations, time-intelligence functions.
- **Dashboard Design:** Layouts, formatting, interactivity, storytelling, sharing & collaboration.
- **Projects:** Customer segmentation dashboard, exploratory BI reports, hands-on visual assignments.

Project: **Campaign Report**
Build a Power BI marketing campaign report with DAX measures.

Program Syllabus

Tableau

You'll Learn:

Tableau Essentials & Data Preparation

- **Connecting & Preparing Data:** Data types, joins, blending, pivots, transformations, SQL connections.
- **Core Visual Building:** Bar, line, pie, scatter, bubble, maps (geo, custom geocoding, polygon, WMS).
- **Data Exploration Tools:** Filters, groups, sets, parameters, drill-down, marks, dimensions & measures.
- **View & Layout Tools:** Shelves, cards, sorting, formatting, captions, exporting, metadata management.

Visual Analytics & Dashboards

- **Advanced Visuals:** Tree maps, heat maps, bump charts, funnel, waterfall, histogram, bullet & motion charts.
- **Calculations & Analytics:** Calculated fields, LOD expressions, trends, forecasting, predictive visuals.
- **Dashboards & Storytelling:** Interactive dashboards, stories, actions, design best practices, publishing & collaboration (Tableau Online).
- **Projects & Applications:** Build multi-chart dashboards, map-based visuals, predictive model integration.

Project:

Interactive Sales Dashboard
Create a Tableau sales dashboard with interactive filters, drill-down capabilities, and real-time data refresh.

Program Fee

Rs. 1,20,000/- + GST

No Cost EMI Available for 3, 6 and 9 Months

Payment Partners

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(+91) 77956 87988   www.learnbay.co   contacts@learnbay.co