

Empower Excel Elevate

10 Weeks Program in
DATA ENGINEER
Integrated with Top experts from MNCs



ABOUT COMPANY

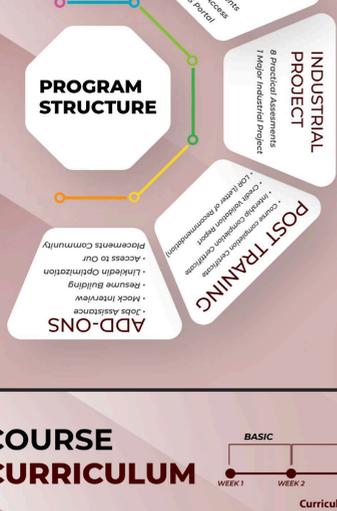
An Idea of learning and upskilling every single day for the hope of a better tomorrow.

LearnFlu is nothing but an Idea. An Idea of learning and upskilling every single day for the hope of a better tomorrow. LearnFlu is also a disease, which every being alive wishes to have. A disease of learning something new and interesting for the growth they desire

SUCCESS



WE OFFER

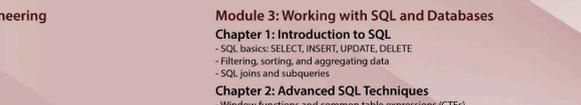


PROGRAM HIGHLIGHTS

WHY THIS PROGRAM IS YOUR BEST CHOICE

- 01 LIVE INTERACTIVE SESSIONS WITH INDUSTRY EXPERTS
- 02 MENTOR-DRIVEN SPRINT-BASED REAL-WORLD TEAM PROJECTS
- 03 LIVE MENTORSHIP
- 04 PERSONALISED MENTORSHIP AND CAREER GUIDANCE
- 05 CAREER ASSISTANCE
- 06 DOUBLE CERTIFICATION & CREDIT REPORT
- 07 PLACEMENT ASSISTANCE

COURSE CURRICULUM



Curriculum Summary: > Total Modules: 8 > Total Chapters: 24 > Total Hours: 36 hours

Data Engineering Curriculum provides a comprehensive overview of key data engineering concepts, tools, and techniques. The focus is on practical skills with Python, SQL, ETL processes, cloud computing, data processing frameworks, and big data technologies, ensuring learners are well-prepared for modern data engineering challenges.

Module 1: Introduction to Data Engineering
Chapter 1: Role of a Data Engineer
 - What is Data Engineering?
 - Key responsibilities of a data engineer
 - Data engineering vs data science vs data analysis
Chapter 2: Overview of Data Pipelines
 - What are data pipelines?
 - Components of a data pipeline: ingestion, processing, and storage
 - Batch vs real-time data processing
Chapter 3: Tools and Technologies in Data Engineering
 - Overview of key tools: Python, SQL, Hadoop, Spark, Airflow
 - Introduction to cloud platforms (AWS, Google Cloud, Azure)
 - Understanding the ecosystem of data engineering

Module 3: Working with SQL and Databases
Chapter 1: Introduction to SQL
 - SQL basics: SELECT, INSERT, UPDATE, DELETE
 - Filtering, sorting, and aggregating data
 - SQL joins and subqueries
Chapter 2: Advanced SQL Techniques
 - Window functions and common table expressions (CTEs)
 - Indexing and optimizing SQL queries
 - Managing large datasets with SQL
Chapter 3: Working with Databases
 - Introduction to relational databases (PostgreSQL, MySQL)
 - Database design and normalization
 - Overview of NoSQL databases (MongoDB, Cassandra) and their use cases

Module 2: Python for Data Engineering
Chapter 1: Python Basics for Data Engineering
 - Introduction to Python programming
 - Data structures (lists, dictionaries, sets)
 - Loops, conditionals, and functions
Chapter 2: Working with Data using Python
 - Introduction to Pandas and NumPy for data manipulation
 - Reading and writing data (CSV, JSON, databases)
 - Data wrangling and cleaning using Python
Chapter 3: Automating Data Workflows
 - Writing scripts to automate data processes
 - Scheduling Python scripts using Cron and task schedulers
 - Introduction to Python's integration with data engineering tools (Airflow, Dask)

Module 4: ETL (Extract, Transform, Load) Processes
Chapter 1: Introduction to ETL
 - What is ETL and why is it important?
 - The stages of ETL: extract, transform, load
 - ETL architecture and workflows
Chapter 2: Building ETL Pipelines
 - Tools for ETL: Apache Nifi, Airflow, Talend
 - Hands-on: Designing a simple ETL pipeline using Python
 - ETL optimization and best practices
Chapter 3: Handling Data Quality in ETL
 - Common data quality issues (missing data, duplicates)
 - Validating and cleaning data during the ETL process
 - Data auditing and logging in ETL pipelines

Module 5: Data Processing and Transformation
Chapter 1: Introduction to Data Processing
 - Batch processing vs real-time processing
 - Introduction to data processing frameworks (Apache Spark, Dask)
 - Data aggregation and transformation techniques
Chapter 2: Working with Big Data Tools
 - Introduction to Apache Spark for big data processing
 - Using Spark for distributed data transformation
 - Hands-on: Basic data transformations using PySpark
Chapter 3: Data Cleaning and Transformation Techniques
 - Common transformation tasks: filtering, merging, aggregating
 - Feature engineering and creating new variables
 - Hands-on: Transforming and cleaning data in Python and Spark

Module 7: Basics of Cloud Computing for Data Engineering
Chapter 1: Introduction to Cloud Computing
 - Cloud computing models (IaaS, PaaS, SaaS)
 - Benefits of using the cloud for data engineering
 - Introduction to cloud platforms: AWS, Google Cloud, Azure
Chapter 2: Cloud Data Storage and Services
 - Using cloud services for data storage (S3, Google Cloud Storage)
 - Setting up cloud databases (AWS RDS, Google Cloud SQL)
 - Hands-on: Storing data in cloud storage and querying from cloud databases
Chapter 3: Building Data Pipelines in the Cloud
 - Introduction to cloud-based ETL tools (AWS Glue, Dataflow, Data Factory)
 - Building scalable data pipelines on cloud platforms
 - Serverless data engineering using AWS Lambda and Google Cloud Functions

Module 6: Basics of Big Data Technologies
Chapter 1: Introduction to Big Data Concepts
 - What is big data?
 - Characteristics of big data (volume, velocity, variety)
 - Challenges of managing big data
Chapter 2: Hadoop Ecosystem Overview
 - Introduction to Hadoop and HDFS (Hadoop Distributed File System)
 - MapReduce: fundamentals of distributed data processing
 - Hive and Pig for querying large datasets
Chapter 3: Big Data Storage and Processing
 - Distributed data processing with Apache Spark
 - Big data storage solutions: S3, Google Cloud Storage

Module 8: Data Engineering Best Practices and Project
Chapter 1: Data Security and Compliance
 - Importance of data security in data engineering
 - Encryption and data access control
 - Ensuring compliance with regulations (GDPR, HIPAA)
Chapter 2: Monitoring and Managing Data Pipelines
 - Tools for monitoring data pipelines (Airflow, Prometheus, Grafana)
 - Implementing logging, alerts, and error handling in pipelines
 - Performance tuning and scaling pipelines
Chapter 3: Capstone Project
 - Building an end-to-end data pipeline
 - Ingesting, processing and storing data using Python, SQL, and cloud tools
 - Final project presentation and review

2 Weeks Major Projects

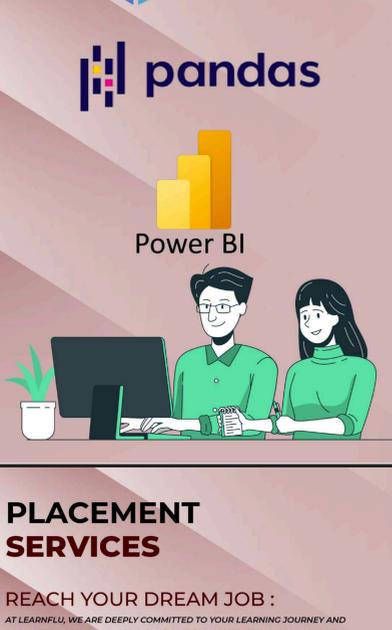
Jobs You Can Apply

- ◆ Data Engineer , ₹10 – ₹25+ LPA
- ◆ Big Data Engineer , ₹12 – ₹28 LPA
- ◆ ETL Developer , ₹7 – ₹18 LPA
- ◆ Cloud Data Engineer , ₹12 – ₹30+ LPA
- ◆ Data Pipeline Engineer , ₹10 – ₹22 LPA
- ◆ Data Platform Engineer , ₹15 – ₹32 LPA

Projects

- ◆ Data Pipeline for ETL/ELT
- ◆ Real-time Streaming Data Pipeline
- ◆ Data Lake Architecture

TOOL BOX



MEET YOUR MENTOR



Shrijith
Company : TCS
Experience : 5+ years

Shrijith is a seasoned mentor with an impressive 7+ years of experience in TCS and a notable presence in more than 2 multinational corporations. Specializing in the field of cloud computing, Shrijith has contributed his expertise to the successful completion of 20+ projects, with a remarkable individual accomplishment of leading over 2 projects. Beyond technical excellence, he is recognized for his strong leadership qualities. Shrijith's commitment to knowledge transfer is evident through his role in training employees across different companies, further solidifying his reputation as a mentor who not only delivers outstanding results but also nurtures and develops talent within the data engineering domain.

PLACEMENT SERVICES

REACH YOUR DREAM JOB :
 AT LEARNFLU, WE ARE DEEPLY COMMITTED TO YOUR LEARNING JOURNEY AND DEDICATED TO YOUR CAREER SUCCESS. OUR COMPREHENSIVE PLACEMENT SERVICES ARE TAILORED TO EQUIP YOU WITH THE SKILLS, CONFIDENCE, AND CONNECTIONS NECESSARY TO SECURE YOUR DREAM TECH JOB

RESUME PREPARATION :
 CRAFT A STANDOUT RESUME WITH EXPERT GUIDANCE TO EFFECTIVELY HIGHLIGHT YOUR SKILLS AND EXPERIENCE, ENSURING YOU CATCH THE ATTENTION OF RECRUITERS.

SOFT SKILL PREPARATION :
 ELEVATE YOUR COMMUNICATION, TEAMWORK, AND LEADERSHIP ABILITIES WITH ENGAGING LIVE SESSIONS AND CUSTOMIZED FEEDBACK, DESIGNED TO HELP YOU EXCEL IN ANY PROFESSIONAL SETTING.

HIRING PARTNERS & CAREER PORTAL :
 GAIN ACCESS TO LEADING TECH COMPANIES THROUGH OUR EXTENSIVE NETWORK OF HIRING PARTNERS AND OUR EXCLUSIVE CAREER PORTAL, DESIGNED TO CONNECT YOU WITH YOUR IDEAL JOB OPPORTUNITIES.

MENTORSHIP
 GAIN HANDS-ON EXPERIENCE THROUGH INTERNSHIPS AND MENTORED PROJECTS, EARNING AN INDUSTRY CERTIFICATE

ADDITIONAL SERVICES

Linkedin optimization
 Optimizing your LinkedIn profile can greatly enhance your professional online presence and increase your visibility.

Career Guidance
 Career guidance plays a vital role in helping individuals navigate the complex and often challenging world of work.

Career Opportunities
 Career opportunities are essential as they provide pathways for personal and professional growth, financial stability, and the fulfillment of individual potential and aspirations.

Hands-on experience
 The importance of hands-on experience, especially in the context of professional development and education, is very substantial to land your first job.

Personality Development
 Personality development is crucial as it enhances overall personal growth, fosters confidence, and improves interpersonal skills, leading to success in both personal and professional life.



CREDIT VALIDATION REPORT



COURSE COMPLETION CERTIFICATE



INTERNSHIP COMPLETION CERTIFICATE



STUDENTS REVIEWS

- Sravan** ★★★★★
Very good internship program. My mentors are teaching me more technical stuff. I also recommend my friends to do this internship.
- Vasavi** ★★★★★
This is the best internship provider with major projects with best experienced mentors.
- Sarvani** ★★★★★
This is the best internship and training provider company with 100% job assistance
- Raghu Roy** ★★★★★
This is the best internship provider with major projects with best experienced mentors.
- Aradhana** ★★★★★
Learnflu seamlessly merges education and technology, offering a dynamic platform for immersive learning experiences. With innovative tools and engaging content, Learnflu elevates the educational landscape.

- Kashish Yadav** ★★★★★
Very good internship program. My mentors are teaching me more technical stuff. I also recommend my friends to do this internship.
- Dinakaran** ★★★★★
Thank you so much learnflu for giving this wonderful opportunity and developed my knowledge.
- Aju Koshan** ★★★★★
I enrolled for web Data Analysis Program for April batch and yesterday was my induction session and session was so good and the mentor Syed Aleem have given very insightful information about this internship and Training Programme and I am very much excited regarding the program
- Priya** ★★★★★
This is a very good learning platform which offers students training and internship program

OUR ALUMNI WORKS AT



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