CREDO SYSTEMZ
Simplifying IT

START YOUR
DATA
ENGINEERING
CAREER TODAY!!

CREDO SYSTEMZ

**Data Engineering
Program**

Capstone Projects :

Real Time Business Scenario using
Data Engineering

Real-Time Streaming Data
Use Apache Kafka and Spark to process streaming data like transactions or sensor logs in real time.

Build a Scalable Data Pipeline with Apache Kafka
Designing and implementing a real-time, scalable data pipeline using Apache Kafka that enables efficient data streaming.

Building a Data Pipeline for Log Data Analysis
Creating a pipeline to ingest, process, and analyze log data from various sources like, server logs, application logs for insights and monitoring.,

Data Encryption in Pipelines
Implementing data encryption techniques in a data pipeline to secure sensitive information during transmission and storage.

Data Quality & Governance
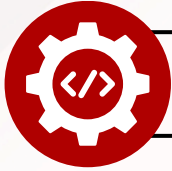Implement validation rules and monitoring systems to ensure accuracy, consistency, and compliance of large datasets.

Analytics Dashboard Integration
Build pipelines to feed cleaned and transformed data into Power BI or Tableau for reporting.

Data Engineering
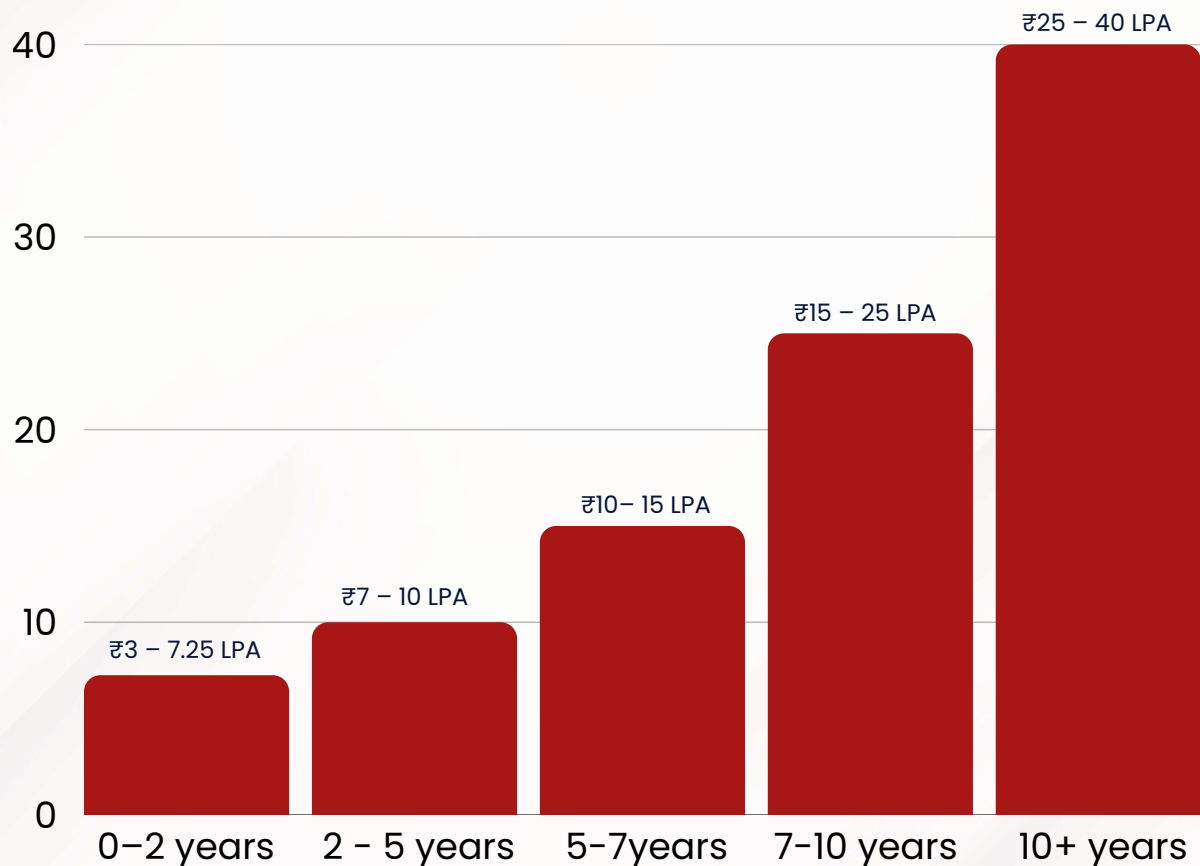## Opportunities & Demand

Data Engineer

ETL Developer

Big Data Engineer

Cloud Data Engineer

Data Warehouse Engineer

Analytics Engineer

Experience	Salary
0–2 years	₹3 – 7.25 LPA
2 - 5 years	₹7 – 10 LPA
5-7years	₹10– 15 LPA
7-10 years	₹15 – 25 LPA
10+ years	₹25 – 40 LPA

DATA ENGINEERING
COURSE SYLLABUS

Section 1 : Introduction to Data Engineering

- Overview of Data Engineering
- Data Science vs Data Engineering
- Data Engineering Infrastructure and Data Pipeline
- Data Architecture

Section 2 : Data Storage and Management

- Relational Databases
- SQL fundamentals
- Database design and normalization
- Query optimization
- NoSQL Databases
- MongoDB, Cassandra, Redis basics
- Use cases for NoSQL
- Cloud Storage Systems
- Distributed file systems (HDFS)

Section 3 : Cloud Sources

- Amazon Relational Database Service
- Microsoft Azure SQL Database
- Google Cloud SQL
- Concepts of Extra-Load, Extract-Load-Transform, or ExtractTransform-Load paradigms

Section 4 : Data Integration and ETL Processes

- ETL (Extract, Transform, Load) concepts
- Data pipelines
- Apache NiFi
- Informatica
- Talend

- Data ingestion techniques
- Data cleansing and transformation

Section 5 : Big Data Processing

- Big Data concepts
- Apache Hadoop and HDFS
- Map Reduce Programming
- Apache Spark
- Data Frames
- Spark SQL

Section 6 : Data Streaming

- Real-time data processing
- Apache Kafka
- Stream processing
- Apache Flink
- Apache Storm

Section 7 : Data Warehousing

- Data Warehousing concepts
- Amazon Redshift
- Google BigQuery
- Star and Snowflake Schema Design
- OLAP vs. OLTP

Section 8 : Data Governance and Security

- Data quality management
- Data privacy regulations
- Role-based access control
- Data encryption techniques

Section 9 : Machine Learning for Data Engineers

- ML workflows overview
- Feature engineering & data prep for ML
- Integration with TensorFlow & Scikit-learn

Section 10 : Emerging Trends in Data Engineering

- Data Mesh principles
- Serverless data pipelines
- Real-time analytics with Apache Pinot
- Ethical data engineering & sustainability

SKILLS AND TOOLS

Tools Covered

Talend

Pentaho

Numpy

Apache Nifi

Apache Hadoop
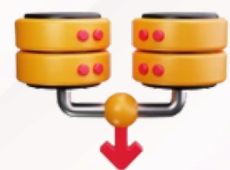
Airflow

Skills Covered

SQL & Database Management

Data Warehousing

ETL Processes

Data Pipeline

Data Modeling

Big Technologies

Cloud Platforms

PLACEMENT SUCCESS STORIES

	Designation	Company	Package
Shashank	Cloud Data Engineer	SIMSON Softwares	**13.8 LPA**
Anuradha	Big Data Engineer	ECS Cloud Infotech	**8.5 LPA**
Sandhya	Analytics Engineer	COLAN INFOTECH	**6.8 LPA**
Ramesh	Data Warehouse Engineer	Beelogical The Magic of Logic	**18.6 LPA**
Joesph	Cloud Data Engineer	Shellinfo Global	**20.0 LPA**
Mohammed	ETL Developer	SUNSMART	**10.2 LPA**

OUR HIRING PARTNERS

tcs TATA CONSULTANCY SERVICES

amazon

Capgemini

Tech Mahindra

cognizant

SKILL LYNC

IRIS

SUNSMART

Ascent 24

ECS Cloud Infotech

LIDER
MINDFUL THOUGHTS DRIVEN BY PASSION

just Integrate IT
Helping Everyone Succeed

LATESHIPMENT.COM

SIMSON Softwares

Shellinfo Global

impress

VAYUZ

COLAN INFOTECH

Beelogical
The Magic of Logic

COGMED

ALTOS Technologies
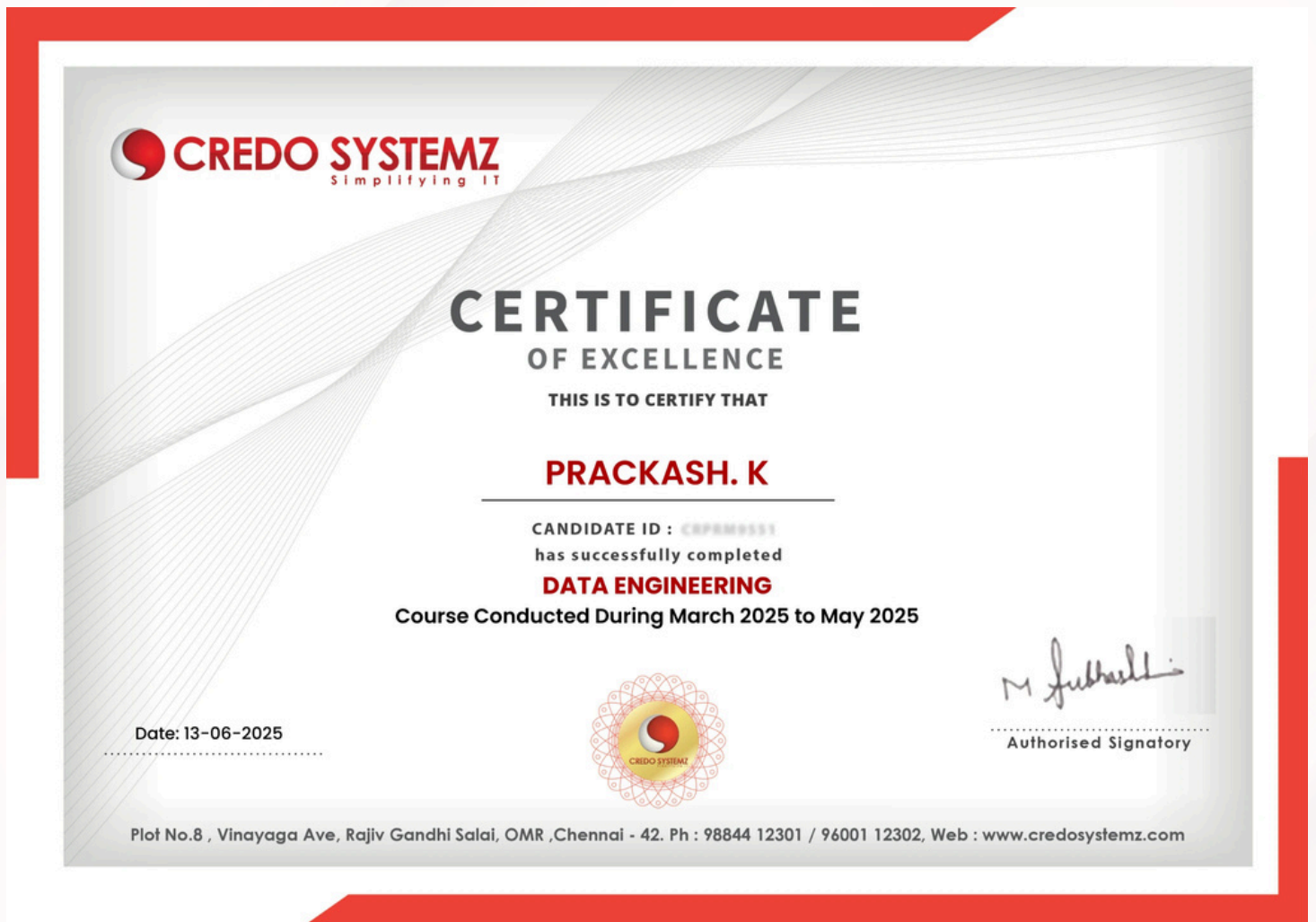
Earn your Data Engineering Course Completion Certificate

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

CREDO SYSTEMZ
Simplifying IT

CERTIFICATE
OF EXCELLENCE

THIS IS TO CERTIFY THAT

PRACKASH. K

CANDIDATE ID : CRPRM0551

has successfully completed

DATA ENGINEERING

Course Conducted During March 2025 to May 2025

Date: 13-06-2025

Authorised Signatory

Plot No.8 , Vinayaga Ave, Rajiv Gandhi Salai, OMR ,Chennai - 42. Ph : 98844 12301 / 96001 12302, Web : www.credosystemz.com

WHAT OUR TRAINEE SAYS?

Santhosh
4.7 ★★★★⯪

I joined the Data Engineering course at Credo Systemz. The trainer explained concepts clearly, and hands-on sessions with real-time projects boosted my skills. Excellent institute for aspiring data engineers.

Fathima Banu
4.2 ★★★★⯪

I had a great experience at Credo Systemz. The Data Engineering course was well-structured with step-by-step guidance. Real-world datasets and projects made learning very practical. Perfect for beginners and professionals.

Prakash Jain
5.0 ★★★★★

Credo Systemz provided the best Data Engineering training. Topics like ETL, data pipelines, and cloud integration were explained clearly. Hands-on labs improved my confidence. Highly recommended for anyone interested in data.

Saindhavi
4.9 ★★★★⯪

The Data Engineering course was very informative. The trainer explained each concept with examples, and assignments reinforced learning. Credo Systemz is definitely the right place to learn data technologies.

Jesuraj. F
4.0 ★★★★

Best Data Engineering course at Credo Systemz! The trainer guided us patiently, and daily tasks helped me revise. Real-time case studies made the learning process smooth and very effective.

Anjali Ravi
4.5 ★★★★⯪

Credo Systemz is the right choice for Data Engineering training. The course included Python, Spark, and AWS integration. Hands-on projects and excellent trainer support helped me build strong data skills.

CHENNAI

VELACHERY

New # 30, Old # 16A, Third Main Road, Rajalakshmi Nagar, Velachery, (Opp. to Murugan Kalyana Mandapam), Chennai – 600 042.

📞 +91 98844 12301

OMR

Plot No.8, Vinayaga Avenue, Rajiv Gandhi Salai, (OMR), Okkiampettai, (Behind Okkiyampet Bus Stop) Chennai – 600 097.

📞 +91 96001 12302

OVERSEAS

USA

Houchin Drive, Franklin, TN -37064. Tennessee

UAE

Sima Electronic Building, LLH Opposite, Electra Street – Abu Dhabi