



GCP DATA ENGINEERING

**MASTERCLASS || JOB ORIENTED ||
REAL-TIME PROJECT**

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Welcome to the Future of Data Management!



OUR SERVICES

- 01 Tailored Solutions, Every Time
- 02 Continuous Learning, Continuous Improvement
- 03 Hands-on Learning with Industry Tools
- 04 Real-world Project Simulations
- 05 Career Guidance and Networking Opportunities

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WHAT YOU CAN EXPECT

- 01 Cutting-edge Curriculum
- 02 Flexible Learning Options
- 03 Collaborative Learning Environment
- 04 Ongoing Career Assistance
- 05 Certification and Recognition

BOOK A SEAT

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Elevate Your Skills, Ignite Your Career

Are you ready to embark on a journey of knowledge and innovation? Welcome to our **GCP Data Engineering** Educational Training Program, where learning meets limitless possibilities.



HAVE AN ENQUIRY?

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Table of Contents

01

About the Program

02

Key Features

03

Tools Covered

04

Course Curriculum &
Capstone Projects

05

Eligibility Criteria

06

Certification

07

Free Learning Modules



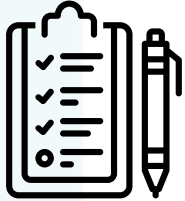
About the Program

A GCP Data Engineering course provides participants with essential knowledge and hands-on experience in building data pipelines and managing data workflows using Google

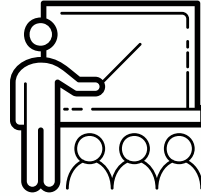
Cloud Platform (GCP) services. It covers foundational GCP concepts, tools, and best practices for data engineering, including data ingestion, transformation, storage, and analysis.

Participants learn to leverage GCP's data engineering services to create scalable and efficient data solutions, enabling them to work effectively with big data and analytics projects in the cloud.

Key Features



Industry
Relevant
Curriculum



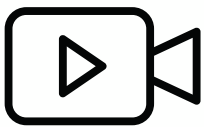
Limited class size
for an optimal
experience



Constantly
Updated
According to
Industry Trends



50+ hands-on
assignments
and 2 capstone



Life-time Access
to the recorded
sessions



1:1 mock interview
Sessions



Career Guidance &
Placement Support

Get in Touch
With Us



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Tools Covered



GCP



**Google
BigQuery**



**Cloud
Dataflow**



**Cloud
Dataprep**



**GCP
Cloud Storage**



**Cloud
Pub/Sub**



**Cloud
Composer**



**Cloud
Dataproc**

Many More...



MODULE 1: INTRODUCTION TO GCP AND DATA ENGINEERING

- Overview of Google Cloud Platform
- GCP Services and Offerings
- GCP Console and Cloud Shell
- Introduction to Data Engineering
- Data Engineering Concepts and Principles
- Data Storage Options on GCP
- Data Security and Compliance on GCP
- Best Practices for Data Engineering on GCP

MODULE 2: DATA INGESTION AND EXTRACTION

- Data Ingestion Strategies
- Batch vs. Real-time Data Ingestion
- Pub/Sub: GCP Messaging Service
- Setting Up Pub/Sub Topics and Subscriptions
- Data Extraction from APIs
- Web Scraping for Data Extraction
- Data Ingestion Patterns and Best Practices
- Monitoring and Managing Data Ingestion Pipelines

MODULE 3: DATA TRANSFORMATION AND PROCESSING

- Data Transformation with Dataflow
- Writing and Deploying Dataflow Pipelines
- Windowing and Triggers in Dataflow
- Data Processing with Dataproc

- Introduction to Apache Spark and Hadoop
- Running Spark Jobs on Dataproc
- Performance Optimization in Data Transformation
- Error Handling in Data Processing Pipelines

MODULE 4: DATA STORAGE AND WAREHOUSING

- BigQuery: Serverless Data Warehouse
- Creating Datasets and Tables in BigQuery
- SQL Queries and Advanced Analytics in BigQuery
- Data Storage Considerations in GCP
- Choosing Between Storage Options (e.g., Cloud SQL, Cloud Storage)
- Data Partitioning Strategies for Performance
- Data Warehousing Best Practices
- Data Security in Data Warehousing on GCP

MODULE 5: DATA ORCHESTRATION AND WORKFLOW AUTOMATION

- Composer: Managed Airflow
- Setting Up and Scheduling Workflows in Composer
- DAG (Directed Acyclic Graph) Creation and Execution
- Error Handling and Retry Strategies in Workflows
- Monitoring and Logging in Data Workflows
- Scalability and Resource Management in Composer
- Best Practices for Data Orchestration
- Continuous Integration and Deployment (CI/CD) for Data Pipelines

MODULE 6: DATA GOVERNANCE, SECURITY, AND COMPLIANCE

- Data Governance Best Practices
- Data Security and Encryption on GCP
- Compliance and Regulatory Considerations
- Auditing and Monitoring Data Access
- Managing Data Lifecycle and Retention Policies
- Data Privacy and GDPR Compliance
- Disaster Recovery Planning and Testing
- Case Studies: Security and Compliance in Data Engineering

MODULE 7: ADVANCED TOPICS IN GCP DATA ENGINEERING

- Data Streaming Architectures and Use Cases
- Data Lake Architecture and Implementation in GCP
- Real-time Data Analytics with BigQuery and Dataflow
- Machine Learning Integration with GCP Data Pipelines
- IoT Data Processing and Analytics on GCP
- Data Pipeline Optimization and Cost Management
- Data Quality and Data Governance in GCP
- Emerging Trends in Data Engineering on GCP

CAPSTONE PROJECTS

Real-time Data Processing Pipeline

Design and implement a real-time data processing pipeline using GCP services like Pub/Sub, Dataflow, and BigQuery. Ingest streaming data, perform transformations, and store the results in BigQuery for real-time analytics. This project will demonstrate your ability to handle continuous data streams and provide instant insights.

CAPSTONE PROJECTS

Data Warehousing and Business Intelligence Solution

Create a comprehensive data warehousing solution using GCP's BigQuery. Integrate data from various sources, design optimized schemas, and build dashboards using a BI tool like Data Studio. Implement features like scheduled data updates and automated reporting. This project showcases your skills in data warehousing, ETL processes, and business intelligence.

CAPSTONE PROJECTS

IoT Data Processing and Analysis

Build a data pipeline to process and analyze IoT data using GCP services. Ingest sensor data from IoT devices into Cloud IoT Core, process and transform the data using Dataflow, and store it in BigQuery. Implement real-time monitoring and create visualizations to provide insights into the IoT data. This project showcases your skills in handling IoT data streams and extracting valuable insights for decision-making.

SELF LEARNING MODULES

Gcp Admin
Certification Course

**WORTH RUPEES
12000/- FREE**

FREE

CERTIFICATIONS YOU CAN PURSUE AFTER COMPLETING THE COURSE

1. GCP Administrator
2. GCP Data Engineer

Eligibility Criteria



- Bachelor's degree in any field
- Familiarity with database concepts and SQL.
- Basic understanding of data processing.
- Working Professionals >1yrs
- Optional: Prior experience in data engineering or related fields.
- Basic computer literacy and operating system knowledge.
- Preferred: Familiarity with cloud platforms like GCP.

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Certification



CERTIFICATE OF COMPLETION

This Certificate is proudly awarded to



For their successful completion of course _____
at LevelUp Cloud Solutions Pvt Ltd in the month of _____ year _____.

We are confident that he/her has acquired the skills and knowledge needed to succeed as
a _____. We wish him/her all the best in their future endeavours.

SATEESH PABBATHI
Founder

Industry Recognised Certification

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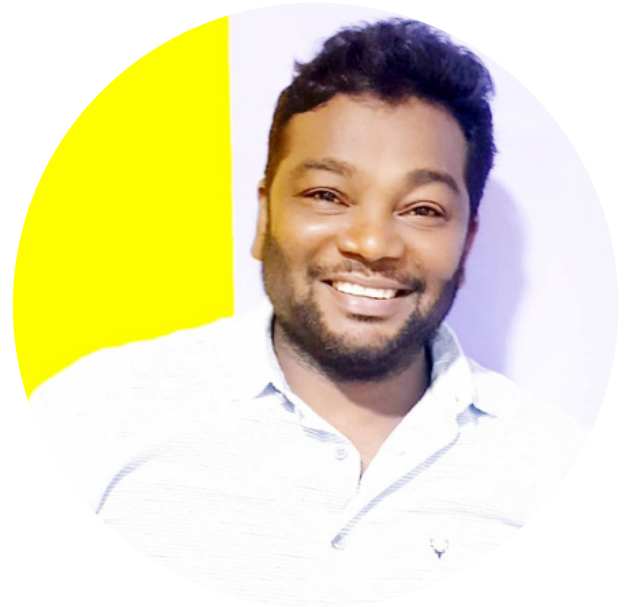
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Trainer Profile

Sateesh Pabbathi

Author & Cloud Expert

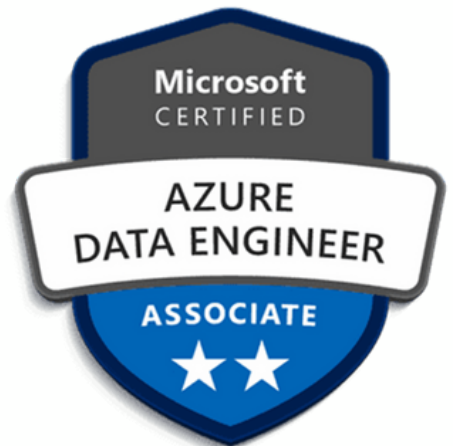
 [LinkedIn Profile](#)



With over two decades of industry experience, he stands as a seasoned expert in the realm of cloud computing. Holding certifications as a Microsoft Certified Trainer, AWS Certified Data and DevOps Engineer, GCP Certified Architect, Kubernetes Certified Administrator and more, his expertise is both broad and deep.

Among his notable achievements is the curation and design of courses for prominent Ed-Tech platforms like Upgrad, Simplilearn and more. Through these endeavors, he has successfully trained a substantial cohort of over 4000 students in the dynamic domain of Cloud Computing, arming them with the skills and knowledge necessary for thriving in this rapidly evolving landscape.

Trainer Profile - Certifications



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Offer Now for
~~28,000/-~~

✓ 18,500/-*



12,000/-
Worth Free
Learning Modules

*GST APPLICABLE

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