

Google Cloud Engineering (GCP)

Design and deploy cloud-native solutions on Google Cloud with strong architecture, operations, security and automation practices.

**8 weeks**

DURATION

76 hours

GUIDED LEARNING

2 projects

PORTFOLIO

ABOUT THE ACADEMY

Practical learning. Work you can demonstrate.

Brightnest AI Academy brings live instruction, guided practice and career preparation together for individuals and teams.

23

FOCUSED COURSES

6

FLAGSHIP PROGRAMMES

Noida

ACADEMY LOCATION

Our approach

1

Learn

Understand concepts through live instruction and current examples.

2

Build

Apply learning through labs, assignments and guided projects.

3

Explain

Document decisions, results, trade-offs and limitations.

4

Prepare

Connect completed work with CVs, interviews and workplace conversations.

PEOPLE BEHIND THE ACADEMY

Meet Ranjeet Kumar



ACADEMY ADVISER

Ranjeet Kumar

Innovation & Growth Leader

15+ years

Experience in data, artificial intelligence and machine learning leadership.

Areas of expertise

- Data science and machine learning solution leadership
- AI product strategy and scalable data platforms
- Technology team leadership and mentorship
- Practical AI and data adoption for business transformation

Education

Master of Information Systems, Anna University, Chennai
Bachelor of Computer Science Engineering



COURSE OVERVIEW

Build your next set of skills

Design cloud-native infrastructure and services on Google Cloud. Progress from Google Cloud Foundations and IAM to Google Cloud Engineering Capstone through guided labs, assessed projects, and portfolio evidence.

Who this is for

IT professionals and developers building Google Cloud engineering and architecture skills.

Before you begin

Learners should understand basic networking and operating-system concepts. No prior Google Cloud experience is required.

Google Cloud capability is demonstrated by sound architecture, secure identity, resilient services, automation, observability, and operational evidence-not console screenshots.



LEARNING OUTCOMES

What you will be able to do

01

Create a governed GCP project with IAM roles, service accounts and budget controls.

02

Build a segmented VPC with private workloads and controlled internet egress.

03

Deploy an application using VM, Cloud Run and container patterns and benchmark operations.

04

Implement a secure application data layer with storage and managed database services.

05

Design a resilient application architecture with availability and recovery objectives.

06

Provision a multi-service environment using Terraform through a Git-based workflow.

07

Build a production-style cloud solution on GCP with automated provisioning and operational dashboards.

CURRICULUM

Course curriculum

8 modules · 8 weeks · 76 hours of guided learning

01 Google Cloud Foundations and IAM

6 hours

TOPICS

Projects · Folders/organisations · Regions/zones · Billing · IAM · Service accounts · gcloud CLI · Labels · Shared responsibility

PRACTICAL WORK

Create a governed GCP project with IAM roles, service accounts and budget controls.

Tools: Google Cloud, IAM, gcloud

Assessment: Foundations quiz

Portfolio evidence: GCP project baseline

02 VPC Networking and Connectivity

10 hours

TOPICS

VPCs · Subnets · Routes · Firewall rules · Cloud DNS · Load balancing · Cloud NAT · Private connectivity concepts · Hybrid connectivity

PRACTICAL WORK

Build a segmented VPC with private workloads and controlled internet egress.

Tools: VPC, Cloud DNS, Load Balancing

Assessment: Networking lab

Portfolio evidence: GCP network architecture



CURRICULUM

Course curriculum

8 modules · 8 weeks · 76 hours of guided learning

03 Compute, Serverless and Containers

10 hours

TOPICS

Compute Engine · Managed instance groups · Cloud Run · Cloud Functions concepts · GKE · Artifact Registry · Workload selection

PRACTICAL WORK

Deploy an application using VM, Cloud Run and container patterns and benchmark operations.

Tools: Compute Engine, Cloud Run, GKE concepts

Assessment: Compute design review

Portfolio evidence: GCP deployment comparison

04 Storage, Databases and Data Services

8 hours

TOPICS

Cloud Storage · Persistent disk concepts · Cloud SQL · Spanner/Firestore/Bigtable awareness · Backup · Encryption · Lifecycle

PRACTICAL WORK

Implement a secure application data layer with storage and managed database services.

Tools: Cloud Storage, Cloud SQL, Database concepts

Assessment: Data services lab

Portfolio evidence: GCP data architecture



CURRICULUM

Course curriculum

8 modules · 8 weeks · 76 hours of guided learning

05 Architecture, Reliability and Scaling

8 hours

TOPICS

Highly available design · Autoscaling · Managed services · Decoupling · Messaging · Caching · SLO thinking · DR patterns · Architecture tradeoffs

PRACTICAL WORK

Design a resilient application architecture with availability and recovery objectives.

Tools: Pub/Sub concepts, Load balancing, Managed services

Assessment: Architecture case

Portfolio evidence: Google Cloud reference architecture

06 Security, Operations and Observability

8 hours

TOPICS

IAM hardening · KMS/Secret Manager · Logging · Monitoring · Alerting · Security posture · Organisation policies · Audit logs

PRACTICAL WORK

Create logging, alerting and secret-management controls for a sample service.

Tools: Cloud Logging, Cloud Monitoring, Secret Manager/KMS

Assessment: Operations checkpoint

Portfolio evidence: GCP security/observability baseline



CURRICULUM

Course curriculum

8 modules · 8 weeks · 76 hours of guided learning

07 Infrastructure as Code and Cloud Automation

10 hours

TOPICS

Terraform · Deployment pipelines · Policy controls · CI/CD · Service configuration · Cost optimization · Operational automation

PRACTICAL WORK

Provision a multi-service environment using Terraform through a Git-based workflow.

Tools: Terraform, Cloud Build/GitHub Actions concepts

Assessment: IaC lab

Portfolio evidence: Automated GCP infrastructure

08 Google Cloud Engineering Capstone

16 hours

TOPICS

Architecture · IAM · Network · Compute · Data · Security · Observability · IaC · Cost · Runbooks · Design review

PRACTICAL WORK

Build a production-style cloud solution on GCP with automated provisioning and operational dashboards.

Tools: Google Cloud, Terraform, GitHub

Assessment: Capstone defence

Portfolio evidence: GCP deployment + architecture portfolio

APPLIED PORTFOLIO

Projects you will build

Two portfolio projects supported by guided module work.

PORTFOLIO PROJECT 1

Cloud-Native GCP Application

Deploy applications and services with private networking, managed data, observability, IAM and Terraform.

DELIVERABLES

Architecture · Terraform · Dashboards · Cost/reliability review

PORTFOLIO PROJECT 2

GCP Resilient Service Platform

Build a scalable architecture using managed compute and containers, with SLOs and a recovery plan.

DELIVERABLES

Deployment · SLOs · Alerts · Runbook · Architecture defence

LEARNING EXPERIENCE

Learn, practise and present

- Live instructor-led sessions that connect concepts to real workplace decisions.
- Guided labs and workshops in every module.
- Assignments, checkpoints and practical feedback.
- Portfolio documentation, demonstrations and capstone review.
- Access to recordings and LMS resources according to the published batch policy.
- Career preparation based on completed work and target roles.

Tools you will work with

Google Cloud · IAM · gcloud · VPC · Cloud DNS · Load Balancing · Compute Engine · Cloud Run · GKE concepts · Cloud Storage · Cloud SQL · Database concepts · Pub/Sub concepts · Managed services · Cloud Logging

CAREER PREPARATION

Build confidence for interviews

A structured process to connect your learning with your next career step.

01**Role clarity**

Identify roles that fit your background, interests and current skills.

02**Profile readiness**

Review your CV, LinkedIn, GitHub and project summaries.

03**Project proof**

Prepare to demonstrate completed work and explain your decisions.

04**Interview practice**

Practise technical questions, project walkthroughs and interviews.

05**Opportunity updates**

Receive relevant job openings and employer requirements, subject to availability and learner readiness.

Career support helps you prepare. Employment outcomes depend on experience, project quality, interview readiness and market conditions.

LEARNER JOURNEYS

Companies where our learners have been hired

Across the Brightnest AI Academy learner community



Learner employment history across the academy; not a placement guarantee for this course. Names and logos identify employers; they do not imply endorsement or a hiring partnership.

BEFORE YOU ENROL

Your questions, answered

Is the Google Cloud Engineering course suitable for beginners?

This is an intermediate-level course. Learners should understand basic networking and operating-system concepts. No prior Google Cloud experience is required.

What will I build during the course?

You will complete guided labs in every module and build two portfolio projects: Cloud-Native GCP Application and GCP Resilient Service Platform. Deliverables include working files or code, documentation, testing or evaluation evidence, and a final presentation.

Which tools and platforms are covered?

Key tools include Google Cloud, IAM, gcloud, VPC, Cloud DNS, Load Balancing, Compute Engine, and Cloud Run. Additional platforms are introduced in relevant modules through practical tasks, and the toolset may evolve as industry practice changes.

How long does the course take?

The course includes approximately 76 guided learning hours across 8 modules, delivered over 8 weeks.

Which career paths can this course support?

The curriculum supports the development of skills relevant to roles such as Google Cloud Engineer, Cloud Administrator and Cloud Architect. Career outcomes depend on prior experience, project quality, interview readiness and market conditions; employment is not guaranteed.

BEFORE YOU ENROL

Your questions, continued

Will I receive mentor and career support?

The course includes live instruction, lab support, assignment feedback, project reviews and career preparation covering portfolio development, CV writing, LinkedIn profile improvement, and interview guidance.

FEES & ADMISSIONS

Plan your next step

COURSE FEE

INR 35,000 + GST

EMI and easy instalments available

Duration	8 weeks
Level	Intermediate
Learning format	Live mentor-led learning
Batch starts	Expected Saturday / Sunday starts

Check the live Batches page for the next expected weekend. Confirm the exact date, class times and availability with admissions.

Book a free demo class >

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