



FIREBASE

AUTH . FIRESTORE . STORAGE
SECURITY RULES . FUNCTION
LINE . ANALYTICS . MESSAGI

DURATION

30 Hours

LEVEL

Beginner to
Intermediate

MODULES

8

MODE

Classroom ·
Online · Hybrid

01 COURSE OVERVIEW

A **Firestore** course covering authentication, **Firestore**, **cloud functions** and **app delivery**. The course builds a complete application backend without servers: authentication flows, **Firestore** modelling with security rules, file storage, cloud functions for trusted logic, hosting, and push messaging.

Learners ship a working application with role-based access and offline support.

WHO IT IS FOR

- Mobile and web developers
- Startup teams shipping MVPs
- Flutter and React Native developers
- Freelancers building client apps

PREREQUISITES

JavaScript or Dart familiarity.

02 LEARNING OUTCOMES

- 01 Implement email, phone and social authentication.

03 Write security rules that enforce real access control.

05 Write cloud functions for trusted operations.

07 Deploy hosting and configure environments.
- 02 Model **Firestore** collections for query efficiency.

04 Handle file upload and serving with **Storage**.

06 Support offline use and conflict handling.

08 Track usage with **Analytics** and send push messages.

01 FIREBASE FOUNDATIONS

Project setup

Emulator suite

Pricing model and quotas

SDKs

Environments

02 AUTHENTICATION

Email and password

Google and Apple sign-in

Session handling

Phone OTP

Custom claims

Account linking

LAB

AUTH FLOWS

03 FIRESTORE MODELLING

Documents and collections

Denormalisation

Composite indexes

Subcollections

Query constraints

Pagination

LAB

DATA MODEL

04 SECURITY RULES

Rule structure

Role-based access

Testing rules with the emulator

Request and resource

Validation in rules

LAB

RULE TEST SUITE

05 STORAGE AND MEDIA

Upload and download

Rules for files

Signed URLs

Metadata

Image resizing extension

06 CLOUD FUNCTIONS

HTTP and callable functions

Scheduled functions

Cold starts

Firestore triggers

Secrets

Error handling

LAB

TRUSTED OPERATIONS

07 OFFLINE AND REALTIME

Local persistence

Conflict handling

Sync strategies

Listeners

Realtime Database comparison

08 DELIVERY AND GROWTH

Hosting and custom domains

Analytics events

Cloud Messaging

Remote Config

Crashlytics

App Check

PROJECT

SHIPPED FIREBASE APPLICATION

04 ASSESSMENT & CERTIFICATION

Module assignments and labs

25%

Mini projects

20%

Internal assessments

15%

Final project and review

40%

CERTIFICATION

Learners who complete all modules, submit the final project and clear the review receive a course completion certificate from Kaizen Infinities Private Limited. Project work is documented for the learner's portfolio, and interview preparation is included in the closing sessions.

05 CAREER OUTCOMES

ROLES THIS PROGRAMME PREPARES FOR

MOBILE APP DEVELOPER

FULL STACK DEVELOPER

FIREBASE DEVELOPER

FRONT-END ENGINEER

STARTUP ENGINEER

CALL US

+91 73051 33996

EMAIL US

apply@kaizeninfinities.com

VISIT OUR WEBSITE

www.kaizeninfinities.com