

# Lab: Explore Google Firebase

Estimated time needed: 20 minutes



Welcome to this instructional lab, where you will learn about the different features provided by Firebase. This lab will guide you through creating a Firebase project, exploring its interface, and using its core features, such as Authentication, Database, Storage, and Machine Learning.

## Objectives

After completing this lab, you will be able to:

- Log in to Firebase using a Google account
- Create a new Firebase project
- Navigate the Firebase console
- Explore and utilize Firebase Authentication, database, storage, and machine learning

## Exercise 1: Setting up Firebase

In this exercise, you will log into Firebase and create a new project.

### Step 1: Log in to Firebase

1. Open your web browser and navigate to [Firebase](#).
2. Click the **Go to console** button at the top right corner of the page.

A screenshot of the Firebase homepage. At the top, there is a navigation bar with the Firebase logo (a red flame icon), the word "More" with a dropdown arrow, a search bar containing a magnifying glass icon and the word "Search", and a user profile icon with a slash. Below the navigation bar, a large black banner with white text reads "Make your app" followed by two yellow circular icons with orange symbols, and "the" followed by more text that is cut off. The rest of the page is a dark gray background.

3. Sign in using your Google account. If you do not have a Google account, you will need to create one.

### Step 2: Create a Firebase project

Once you are logged in, you are taken to the projects page. You need to create a project to use the different services provided by Firebase. You can either create a new project or use one of the existing projects.

The screenshot shows the Firebase console's main interface. On the left, there is a large button with a red border containing a blue plus sign and the text "Create a project". To the right of this is a list of existing projects, starting with "test" (with ID "test-30cd3"). Below this, there are two main sections: one for creating a demo project and another explaining Firebase projects.

**Create a project**

**test**  
test-30cd3

**Explore a demo project**

**iOS+**      **View only**

**Firebase projects are containers for your apps**

Apps in a project share features like Real-time Database and Analytics

[Learn more](#)

If you don't have any projects, you are given an option to create one or try a sample app.



# Welcome to Firebase!

Tools from Google for building app infrastructure, improving app quality, and growing your business

≡ View docs ↗



Get started with a  
Firebase project

🔗 Explore our view only

Let's create a new project.

1. Once logged in, click **Add project**.
2. Enter a project name and follow the on-screen instructions to set up your project.

## × Create a project

# Let's start with a name for your project<sup>?</sup>

Project name

**My First Firebase Project**

 my-first-firebase-projec-2077e

Already have a Google Cloud project?  
[Add Firebase to Google Cloud project](#)

Cont

3. Leave the default Google Analytics options and select **Continue**.

# Google Analytics for your Firebase project

Google Analytics is a free and unlimited analytics solution that enables targeting, reporting, and more in Firebase Crashlytics, Cloud Messaging, In-App Messaging, Remote Config, A/B Testing, and Cloud Functions.

Google Analytics enables:



A/B testing [?](#)



Breadcrumb logs in Crashlytics [?](#)



User segmentation & targeting across [?](#)  
Firebase products



Event-based Cloud Functions triggers [?](#)



Free unlimited reporting [?](#)



Enable Google Analytics for this project

Recommended

[Previous](#)

[Continue](#)

4. Create a Google Analytics account for your project or pick a pre-existing one. Click [Create project](#).

# Configure Google Analytics

Choose or create a Google Analytics account [?](#)



Create a new account

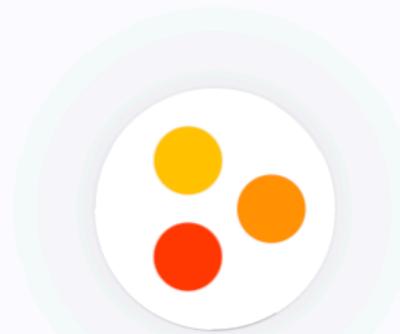
Automatically create a new property in this account

Upon project creation, a new Google Analytics property will be created in your chosen Google Analytics account and linked to your Firebase project. This link will enable data flow between the products. Data exported from your Google Analytics property in Google Analytics is subject to the Firebase terms of service, while Firebase data imported into Google Analytics is subject to the Google Analytics terms of service. [Learn more](#) .

[Previous](#)

[Create project](#)

- Once the project is created, select Continue to go to your project.



## My First Firebase Project

✓ Your Firebase project is ready

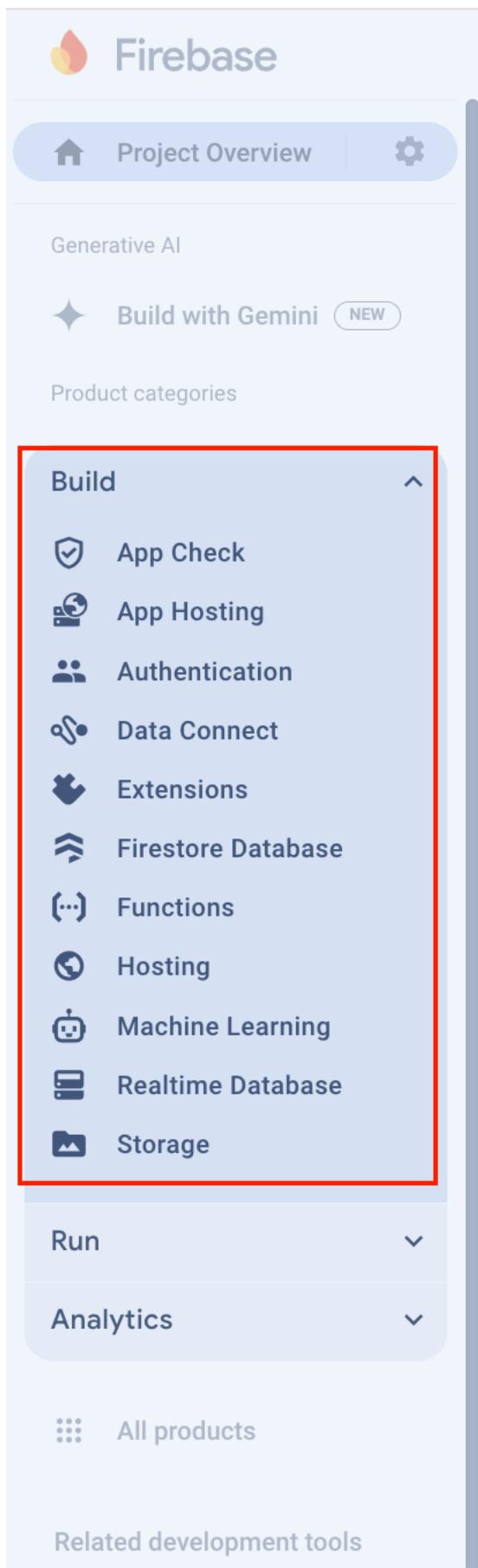
Continue

## Exercise 2: Navigate and explore Firebase

This exercise will familiarize you with the Firebase console and explore its features.

### Step 1: Navigate the Firebase console

1. Familiarize yourself with the Firebase console. The left navigation bar provides access to all Firebase features. Expand the Build section to see all the services.



The screenshot shows the Firebase console interface. On the left, there's a sidebar with sections like 'Generative AI', 'Build with Gemini' (with a 'NEW' badge), 'Product categories', and a expanded 'Build' section. The 'Build' section is highlighted with a red box and contains icons for 'App Check', 'App Hosting', 'Authentication', 'Data Connect', 'Extensions', 'Firestore Database', 'Functions', 'Hosting', 'Machine Learning', 'Realtime Database', and 'Storage'. Below this are collapsed sections for 'Run' and 'Analytics', and a link to 'All products'. At the bottom, there's a 'Related development tools' section.

My First Firebase Project ▾

Receive email updates about new features

# My First Firebase ...

## Spark plan

## Get started by adding Firebase to your app

iOS+ Android </> |  

Add an app to get started

### Firebase AI Assistance

Get answers to questions about Firebase products, use context-aware development and shorten your troubleshooting process via a natural language chat interface directly in the Firebase console.

 Try it now

Learn more 

### Step 2: Explore core features

1. Click **Authentication** in the Firebase console, watch the introduction video, and read the documentation on the page.

My First Firebase Project ▾

# Authentication

Authenticate and manage users from a variety of providers without server-side code

Get started

Ask Gemini

Learn more



How do I get started?

[View the docs](#)



How does Authentication work?

[View the docs](#)



What can Authentication do for me?

[Learn more](#)



Introducing Firebase Authentication

Watch on YouTube

Authenticatio

2. Carry on to the **Firestore** under the **Build** section and explore the various resources.

 **Firebase**

[Project Overview](#) 

Generative AI

◆ Build with Gemini NEW

Project shortcuts

userManager Authentication

dú Firestore Database

Product categories

Build

Run

Analytics

All products

Related development tools

[IDX](#)  [Checks](#) 

My First Firebase Project ▾

# Cloud Firestore

Realtime updates, powerful queries, and automatic scaling

[Create database](#) 

Learn more

 [How do I get started?](#)  
View the docs

 [How much will Cloud Firestore cost?](#)  
View pricing

 [What can Cloud Firestore do for me?](#)  
Learn more

 Watch

3. Do the same with Storage and Machine Learning.

## Conclusion

Congratulations on completing this lab! You have now learned how to set up a Firebase project and explored key features such as authentication, database, storage, and machine learning.

## Next steps

- Integrate Firebase services into your mobile or web applications
- Explore more about Firebase rules and security settings
- Start building your own custom Machine Learning models with Firebase ML

## Author(s)

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