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AI and Robotics Club

Introduction To Firebase

By Mike Majdalani

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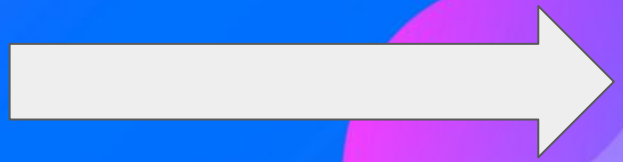

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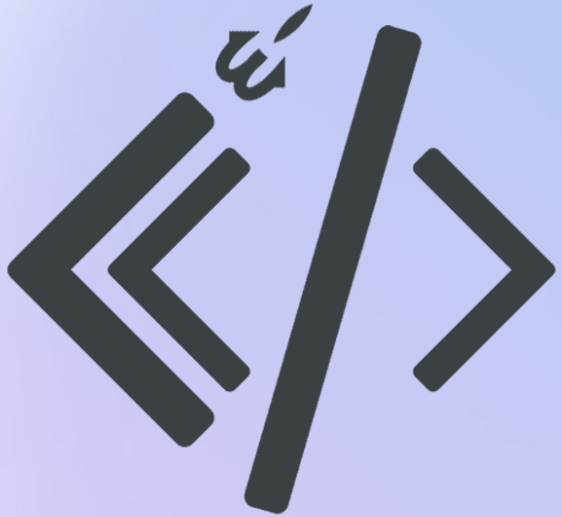
Who am i?

- I am a full stack developer with extensive experience in building and deploying production applications.
- As a coding tutor and coach, I founded Devrabic to empower people to learn how to code in Arabic.
- I am a content creator on social media, specializing in producing educational content.



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What is Firebase?

- Firebase is a platform developed by Google for creating mobile and web applications.
- Offers a variety of tools and services for app development.
- Designed to help you build, improve, and grow your app.

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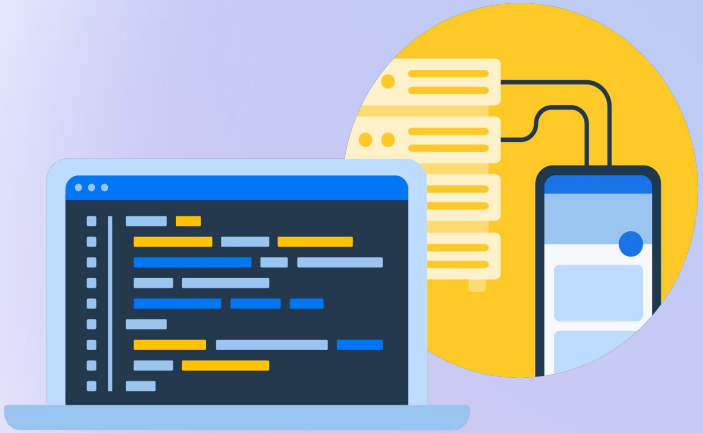
Key Features of Firebase

- **Authentication:** Secure authentication system to verify users.
- **Realtime Database:** NoSQL cloud database for real-time data syncing.
- **Cloud Firestore:** Scalable, flexible database for mobile, web, and server development.
- **Cloud Functions:** Serverless backend logic.
- **Hosting:** Fast, secure hosting for web apps.
- **Analytics:** Powerful analytics to understand user behavior.



Firebase Authentication

Supports multiple authentication methods:

- Email and password
- Google, Facebook, Twitter, and other OAuth providers
- Phone number
- Anonymous sign-in

Simple integration with your app.

Firebase Databases

Realtime Database

- NoSQL database that stores data as JSON.
- Real-time syncing across all clients.
- Offline support for web and mobile apps.

Cloud Firestore

- Document-oriented database.
- Data structure with collections and documents.
- Stronger querying capabilities than Realtime Database.

Firebase Cloud Functions

Serverless backend to run code in response to events.
Scales automatically to handle traffic.

Use cases:

- Sending notifications
- Triggering database updates
- Integrating with third-party services

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Firebase Hosting

- Fast and secure web hosting.
- Global CDN (Content Delivery Network) for low latency.
- Free SSL certificates and custom domain support.
- One-click deployment from your command line.

Why use Firebase?

- **Ease of Use:** Simple setup and integration.
- **Scalability:** Automatically scales with your app's growth.
- **Cross-Platform:** Works seamlessly across Android, iOS, and Web.
- **Security:** Built-in security features and best practices.
- **Community & Support:** Strong community and comprehensive documentation.

Use Cases

- **Social Media Apps:** Real-time chat and notifications.
- **E-commerce:** Product management and user authentication.
- **Gaming:** User progress tracking and cloud functions for matchmaking.
- **Content Management:** Data storage and content delivery.

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Let’s code!

Firebase Authentication Integration

Code will be available on my Github: MikeMajdalani1

A challenge will be held at the end of the session, and the winner will receive the full Devrabic course.

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Scan the QR code
And send us your name