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## **Prerequisites**

Before diving in:

Basic HTML, CSS, JS

ES6+ (arrow functions, destructuring, promises)

Git & GitHub basics

## **Weekly Breakdown**

Build strong React foundations.	
JSX, Components, Props	
• State, Events	
Conditional Rendering	
• Lists and Keys	
• Forms and controlled components	
useState and useEffect hooks	
Project: Simple Todo App (Local state)	

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Component reusability

Custom Hooks

Context API for global state

React Router DOM

Basic form validation

Project: Multi-page blog website (no backend yet)

### **Week 4: Firebase Fundamentals**

Start using Firebase as your backend-as-a-service.

What is Firebase?

Firebase Console setup

Firebase SDK integration with React

Firebase Authentication

Email/password

Google login

Project: Login/signup system with Firebase Auth

#### **Week 5: Firebase Firestore Database**

Learn how to store and fetch real-time data.

Firestore structure (collections & documents)

Add, read, update, delete (CRUD)

Real-time listeners

Security rules basics

Project: Notes App with login and real-time saving

# **Week 6: Firebase Storage & Hosting**

Upload images or files

Fetch/download files

Firebase Hosting

Deploying your React app

Custom domain setup

 $\ensuremath{\mathbb{N}}$  Project: Image Gallery with upload, view, and delete

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Restrict access based on roles

Secure Firestore reads/writes

Update user profiles

Protected routes in React

Project: Admin Dashboard (view/edit/delete users)

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Build a full app using everything you've learned.

#### ☑ Capstone Project Ideas:

- Blog Platform (auth, posts, comments)
- eCommerce App (products, cart, checkout)
- Portfolio CMS (add projects from dashboard)
- Chat App (real-time messages + user login)

## 

Tool	Use
React	Frontend

Firebase Auth	Login & Signup
Firebase Firestore	Database
Firebase Storage	File uploads
Firebase Hosting	Deployment
React Router	Page navigation
Tailwind or CSS modules	Styling
Formik/Yup	Form validation (optional)