

AUTOMATED INVOICE GENERATOR

Internship Project

Project Overview

The **Automated Invoice Generator** is a comprehensive, production-ready invoice management system designed for freelancers and small businesses. It enables users to create, manage, and send professional invoices with ease while also tracking payments, clients, and revenue analytics.

Project Details

- **Developer:** Praveen Yadav
- **Duration:** 25/08/2025 - 10/09/2025
- **Date:** 09/09/2025

Table of Contents

1. Project Introduction
 - 1.1 Objectives
 - 1.2 Success Criteria
2. Technology Stack
3. System Architecture
4. Key Features Implementation
5. Frontend Design
6. Firebase Backend
7. Firestore Database
8. Invoice PDF
9. Conclusion

Project Introduction

The **Automated Invoice Generator** is a full-featured web application built for creating and managing invoices with ease. It provides a secure space where freelancers and small businesses can organize client information, generate professional invoices, send them directly via email, and track payments in real time. With features like automated tax calculations, revenue analytics, PDF generation, and secure cloud storage, it ensures a smooth and efficient invoicing experience across all devices.

Objectives

- Provide freelancers and businesses with a simple invoicing system.
- Enable **secure authentication** and **client management**.
- Automate **tax calculations and payment tracking**.
- Integrate **PDF invoice generation and email sending**.
- Deliver a **responsive and real-time application**.

Success Criteria

- Users can register/login securely using Firebase Authentication.
- Create and manage invoices with **real-time synchronization**.
- Generate **professional PDF invoices** and send via email.
- Provide a **dashboard with revenue statistics and alerts**.
- Ensure **data isolation and secure file storage**.

Technology Stack

- **Frontend:** React 18, TypeScript, Tailwind CSS
- **Backend:** Firebase (Auth, Firestore, Storage)
- **PDF Generation:** pdfmake
- **State Management:** React Context + Hooks
- **Form Handling:** React Hook Form + Yup
- **Icons:** Lucide React
- **Notifications:** React Hot Toast
- **Date Handling:** date-fns
- **Build Tool:** Vite

System Architecture

- src/
 - | — components/ # Reusable UI components
 - | | — auth/ # Authentication
 - | | — dashboard/ # Revenue & statistics
 - | | — invoices/ # Invoice management
 - | | — clients/ # Client database
 - | | — layout/ # App layout

- | └─ settings/ # Business settings
- | └─ contexts/ # Global contexts
- | └─ services/ # Firebase services
- | └─ types/ # TypeScript definitions
- | └─ config/ # Firebase config
- | └─ utils/ # Utility functions

Key Features Implementation

- **Core Features**

- Secure multi-user authentication
- Client database management
- Invoice creation with itemized billing
- PDF invoice generation using pdfmake
- Email integration with templates
- Real-time syncing with Firestore
- Automatic GST/tax calculations
- Invoice status tracking (Draft → Sent → Paid → Overdue)

- **Advanced Features**

- Dashboard analytics with revenue tracking
- Responsive design for mobile & desktop
- Search & filtering for invoices and clients
- Custom business branding and settings
- Export options for invoices/clients
- Firebase Storage for invoice files

Frontend Design



Professional Invoice Generation Made Simple

Create, manage, and send professional invoices in minutes. Perfect for freelancers and small businesses who want to get paid faster.



Quick Setup

Get started in under 2 minutes with our streamlined onboarding process



Get Paid Faster

Professional invoices lead to 40% faster payments on average



Client Management

Keep track of all your clients and their payment history in one place



Secure & Private

Bank-level security with end-to-end encryption for all your data

Welcome Back

Sign in to your account

Email Address

Enter your email

Password

[Forgot password?](#)

Enter your password

Sign In

Don't have an account? [Sign up](#)

Your data is protected with enterprise-grade security

© 2025 Invoice Generator. All rights reserved. | Trusted by professionals worldwide



Dashboard

Invoices

Clients

Settings

Welcome back, Praveen Yadav!

Here's what's happening with your business today.



Total Revenue
₹0



Paid Revenue
₹0



Total Invoices
0



Total Clients
0

Recent Invoices



No invoices yet. Create your first invoice!

Dashboard

Invoices

Clients

Settings

Invoices

Manage all your invoices

[+ Create Invoice](#)



All

Draft

Sent

Paid

Overdue

Invoice

Client

Amount

Status

Due Date

Actions

#INV-1757322270782
Sep 08, 2025

Shriyan Jaiswal
shriyan.jaiswal0906@gmail.com

₹153.4

Draft

Oct 08, 2025

Download Send Edit Delete



Dashboard

Invoices

Clients

Settings

Clients

Manage your client database

[+ Add Client](#)

Shriyan Jaiswal

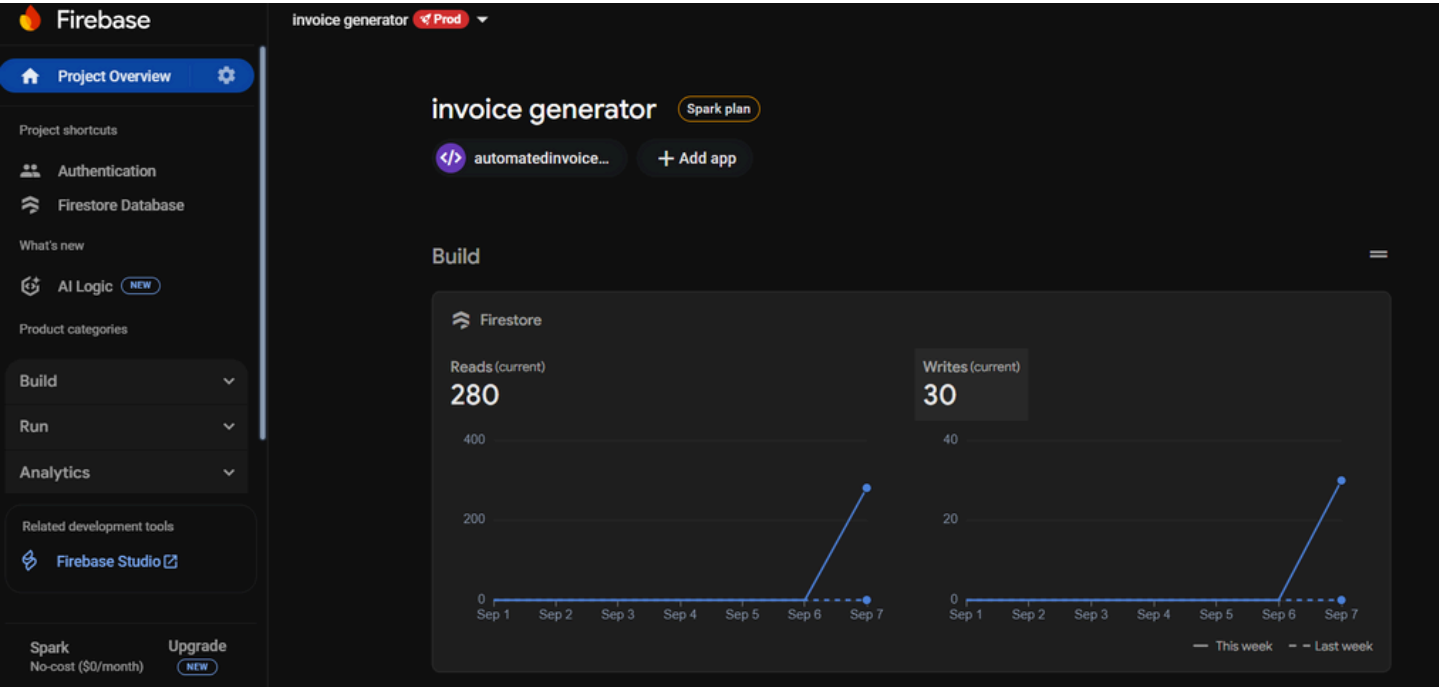


shriyan.jaiswal0906@gmail.com

9235167661

Lahartara Varanasi

Firestore Backend

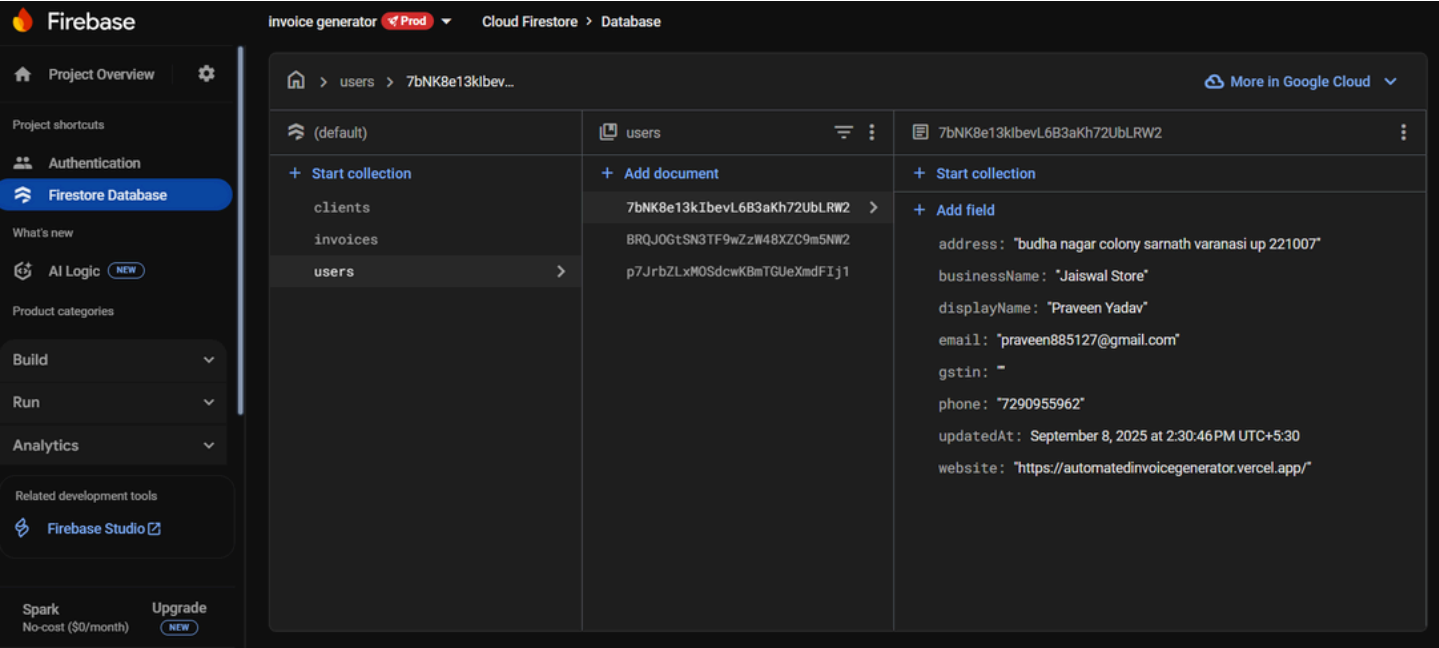


The screenshot shows the Firebase console interface for the 'invoice generator' project, specifically the 'Authentication' section. A warning message at the top states: 'The following Authentication features will stop working when Firebase Dynamic Links shuts down soon: email link authentication for mobile apps, as well as Cordova OAuth support for web apps.' Below this, a search bar allows users to search by email address, phone number, or user UID. A table lists the following users:

Identifier	Providers	Created	Signed In	User UID
ankitshaw20005@gmail...	📧	Sep 9, 2025	Sep 9, 2025	BRQJOGISN3TF9wZzW48XZC...
shriyan.jaiswal0906@g...	📧	Sep 8, 2025	Sep 8, 2025	p7JrbZLxMOSdcwKBmTGUEX...
praveen885127@gmail...	📧	Sep 8, 2025	Sep 8, 2025	7bNK8e13klbevL6B3aKh72Ub...

At the bottom right, there are controls for 'Rows per page' (set to 50) and '1 - 3 of 3'.

Firestore Database



Invoice PDF

Jaiswal Store

Invoice #INV-1757322270782

From:
Jaiswal Store
budha nagar colony sarnath varanasi up 221007
Phone: 7290955962
Email: praveen885127@gmail.com
Website: <https://automatedinvoicegenerator.vercel.app/>
GSTIN: N/A

To:
Shriyan Jaiswal
Lahartara Varanasi
shriyan.jaiswal0906@gmail.com
Phone: 9235167661

Issue Date: Sep 08, 2025

Due Date: Oct 08, 2025

Description	Qty	Rate	Amount
PineApple	1	₹40.00	₹40.00
Apple	2	₹45.00	₹90.00

Subtotal: ₹130.00
Tax (18%): ₹23.40
Total: ₹153.40

Notes:
Happy Customer

Conclusion

The **Automated Invoice Generator** successfully delivers a **secure, scalable, and user-friendly invoicing platform**. It demonstrates strong **technical design, security practices, and usability principles**, making it ideal for freelancers and businesses.

Key Achievements:

- Modern tech stack with React + Firebase
- Real-time synchronization and analytics
- Secure client/invoice management system
- Professional PDF and email integration