

Diskarte AI — Project Definition

Overview

Diskarte AI is a Filipino-focused AI assistant application designed to empower Filipino users with practical, AI-powered tools for everyday challenges — from navigating government bureaucracy to landing a job in the BPO industry. The app is built as a cross-platform (web, Android, iOS) Flutter application backed by Firebase and Google Gemini AI.

Project ID: `diskarte-ai` **Live URL:** <https://diskarte-ai.web.app> **Region:** Asia-Southeast1 (Singapore)

Core Features

1. Bureaucracy Breaker

Helps users write formal Philippine government documents such as barangay indigency letters, passport inquiry letters, and other official correspondence. Uses formal Filipino/English tone appropriate for government agencies.

2. Diskarte Toolkit

A professional communication assistant for job seekers — particularly those targeting the BPO industry. Includes resume writing guidance and professional email/message drafting.

3. Aral Masa (Homework Helper)

An educational assistant that explains academic concepts step-by-step in a way that Filipino students can easily understand. Covers a range of subjects with clear, patient explanations.

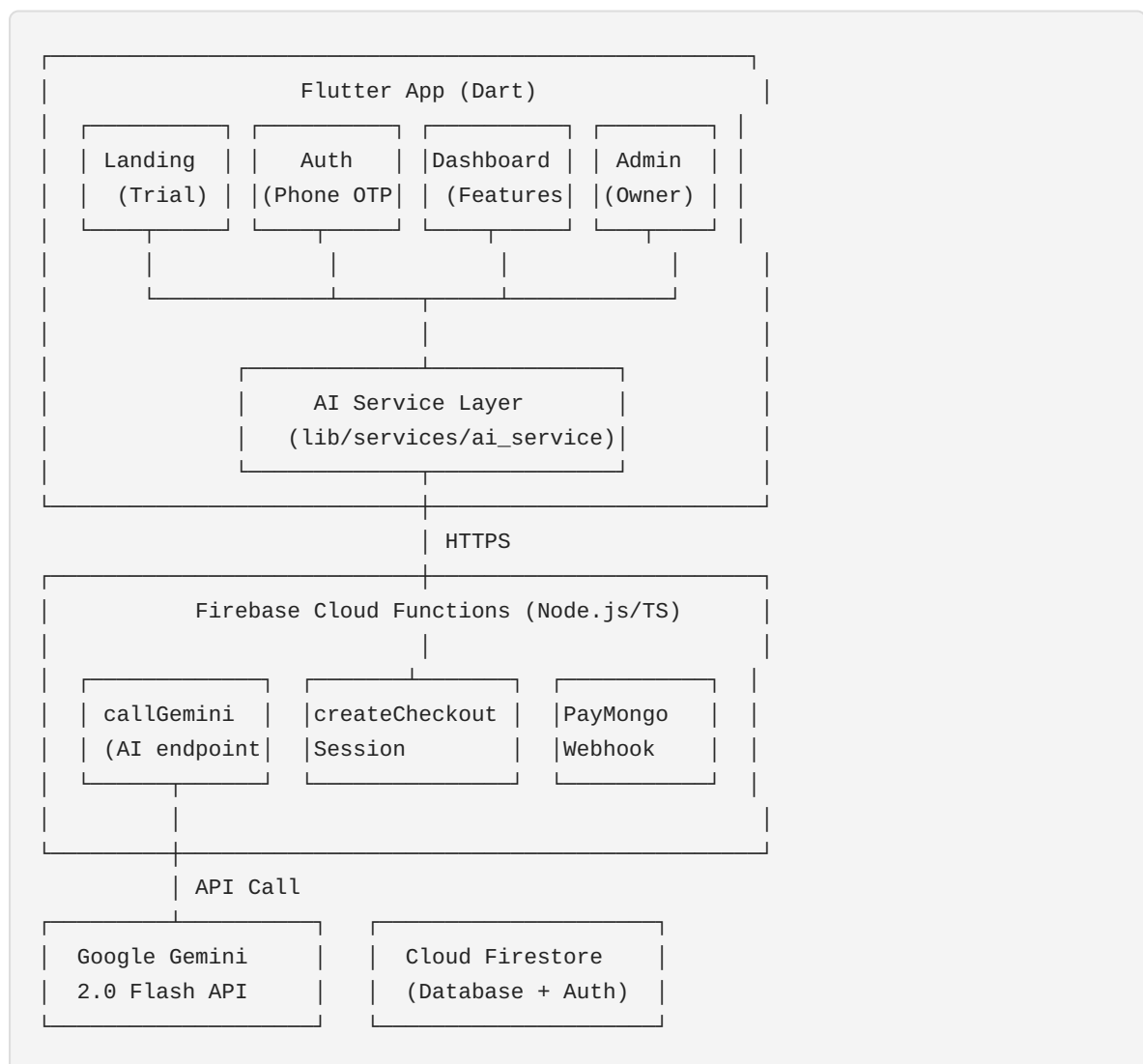
4. Diskarte Coach

A motivational coach that uses Filipino slang and a friendly "Tropa" (buddy) tone to encourage and guide users through personal and professional challenges.

Monetization Model

Tier	Details
Free Trial	3 messages on the landing page (anonymous auth)
Day Pass	₱1 for 24-hour unlimited access (beta pricing)
Payment Methods	GCash, PayMaya, Card, Grab Pay via PayMongo

Architecture



Tech Stack

Frontend

Component	Technology
Language	Dart
Framework	Flutter (SDK ^3.10.3)
State Management	Provider (v6.1.5)
UI System	Material Design 3
HTTP Client	http (v1.6.0)
Local Storage	SharedPreferences
Markdown Rendering	flutter_markdown

Backend

Component	Technology
Runtime	Node.js 20
Language	TypeScript (^4.9.5)
Framework	Firebase Cloud Functions
AI Model	Google Gemini 2.0 Flash
AI SDK	@google/generative-ai (v0.24.1)

Infrastructure

Component	Technology
Database	Cloud Firestore
Authentication	Firebase Auth (Phone + Anonymous)
Hosting	Firebase Hosting
Error Tracking	Firebase Crashlytics
Payments	PayMongo API

Project Structure

```
diskarte-ai/
|
├── lib/                                # Flutter App Source
|   ├── main.dart                      # App entry point
|   ├── firebase_options.dart          # Firebase config
|   ├── config/
|   |   └── owner_config.dart          # Admin UID
|   ├── services/
|   |   └── ai_service.dart            # Backend communication
|   └── features/
|       ├── landing/                  # Landing page + trial chat
|       ├── auth/                     # Phone login screen
|       ├── dashboard/                # Main dashboard
|       ├── resume/                   # Resume wizard
|       ├── bureaucracy/              # Government docs helper
|       ├── shared/                   # Common widgets
|       └── admin/                    # Admin dashboard
|
├── functions/                         # Cloud Functions Backend
|   ├── src/
|   |   ├── index.ts                  # All cloud functions
|   |   └── prompts.ts                # AI system prompts
|   ├── package.json
|   └── tsconfig.json
|
├── web/                               # Flutter web shell
├── assets/images/                     # App images
├── firestore.rules                    # Database security rules
├── firebase.json                      # Deployment config
└── pubspec.yaml                       # Flutter dependencies
```

Entry Points

Frontend

`lib/main.dart` — Initializes Firebase, sets up Crashlytics error handling, and launches the app with `LandingPageScreen` as the initial route.

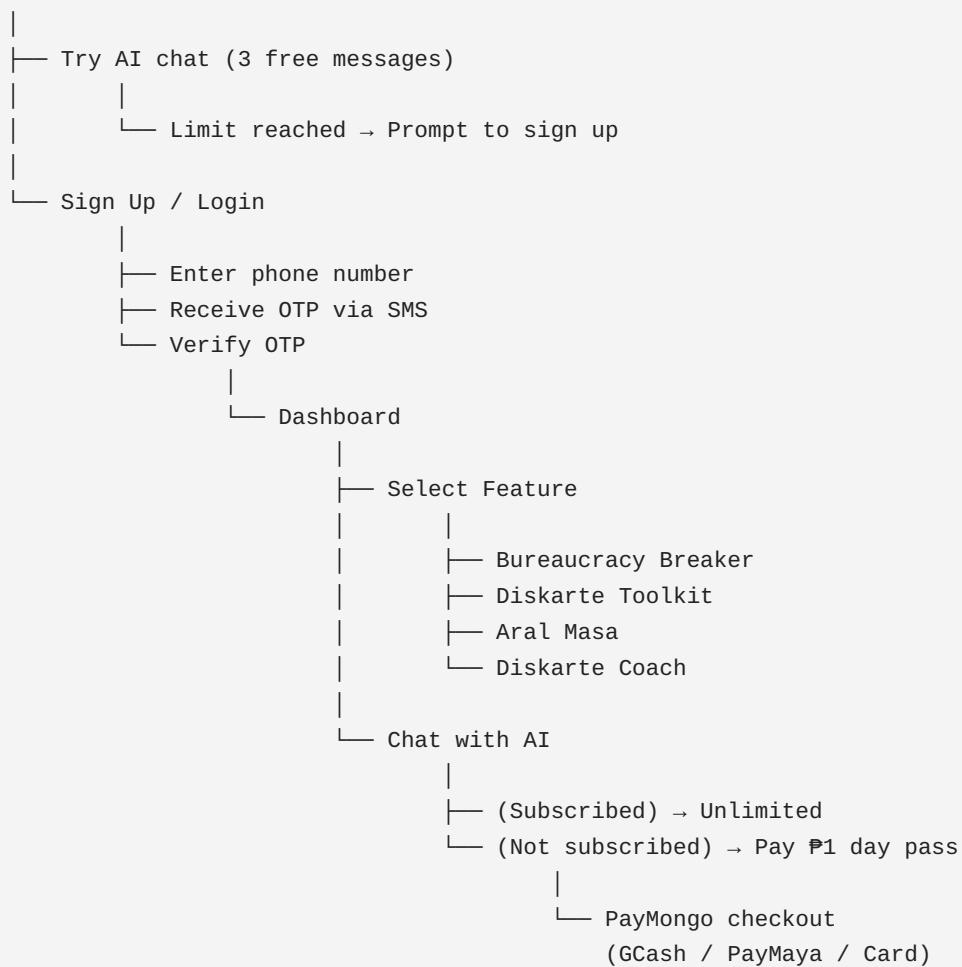
Backend (Cloud Functions)

Function	Type	Description
<code>callGemini</code>	HTTP	

Function	Type	Description
		Main AI endpoint — receives user message + feature type, loads system prompt, calls Gemini, saves response to Firestore
<code>createCheckoutSession</code>	Callable	Creates a PayMongo checkout session for the ₱1 day pass
<code>handlePayMongoWebhook</code>	HTTP	Receives payment confirmations from PayMongo, activates user subscription
<code>getAdminStats</code>	HTTP	Returns platform statistics (owner-only)

User Flow

Landing Page (anonymous)



Data Model (Firestore)

```
users/{userId}
├─ subscription_end_timestamp    # Firestore Timestamp
├─ is_active                    # Boolean
├─ last_payment_id              # Idempotency key
├─ last_request_timestamp       # Rate limiting
├─
└─ chat_logs/{featureType}/
    └─ messages/{messageId}
        ├─ content              # Message text
        ├─ sender                # "user" | "ai"
        └─ timestamp            # Server timestamp
```

Security

- **Firestore Rules** enforce user-scoped data access — users can only read/write their own documents
- **Subscription fields** are protected from client-side manipulation
- **Cloud Functions** verify Firebase ID tokens on every request
- **Admin endpoints** are gated by owner UID check
- **Rate limiting**: minimum 5-second gap between AI requests
- **PayMongo webhook** signature verification prevents spoofed payments

Deployment

Target	Command
Cloud Functions	<code>firebase deploy --only functions</code>
Firestore Rules	<code>firebase deploy --only firestore:rules</code>
Web Hosting	<code>flutter build web && firebase deploy --only hosting</code>
Full Deploy	<code>firebase deploy</code>

Key Configuration

- **Firestore secrets:** `GEMINI_API_KEY` , `PAYMONGO_WEBHOOK_SECRET`

- **Cloud Functions:** 60s timeout, 256MB memory, asia-southeast1 region
 - **Theme:** Navy blue (#002D72) Material Design 3
 - **App Version:** 1.0.0+1
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Document generated on 2026-02-06