

VUTA

World-Class Product & Technical Specification

Pull the Web to Your Pocket

This document is the single source of truth for Antigravity to design, engineer, and ship VUTA as a market-leading Android social media downloader with world-class performance, UX, and monetization.

1. Product Vision & Principles

VUTA is not a typical downloader. It is designed as a zero-friction utility that feels invisible, fast, and inevitable. Users should feel that saving content is easier than scrolling.

- Speed is the primary feature.
- No unnecessary taps or screens.
- Offline-friendly and data-aware.
- African-first, globally competitive.
- Respect platform rules and user privacy.

2. Target Users & Use Cases

Primary users are Android users in Africa who are mobile-data sensitive, social-media heavy, and value offline sharing. Secondary users are global power users who want speed and simplicity.

- Save Instagram Reels and Facebook videos for offline viewing.
- Extract images from posts and stories.
- Save WhatsApp statuses without alerting contacts.
- Trim and repost videos instantly.
- Queue downloads for night data bundles.

3. System Architecture Overview

VUTA is architected for extreme responsiveness. All heavy operations run outside the UI isolate to ensure the interface never blocks.

Layer	Responsibility
Presentation	Flutter UI, Bento Grid, animations
State	Riverpod providers and async notifiers
Domain	Download rules, parsing, permissions
Data	Network requests, file IO, local DB
Platform	Android services, WorkManager, overlays

4. Multithreaded Download Engine

Each media file is split into four chunks and downloaded in parallel using Dart Isolates. The final file is assembled once all chunks complete.

Total Download Time = $\max(\text{chunk times}) + \text{merge time}$. This provides up to 3x performance improvement on fast networks.

5. UI/UX System – Glassmorphic Bento

The UI is designed as a modular Bento Grid, optimized for one-hand use and instant recognition.

- Deep Onyx dark theme (#080808)
- Glass cards with blur and soft borders
- Electric Savannah accent (#00FF85)
- Haptic feedback on all primary actions
- 60fps animations using Implicit Animations

6. Zero-UI & Background Features

- Clipboard listener for automatic link detection
- Floating VUTA Bubble overlay
- Scoped Storage WhatsApp status reader
- Built-in video trimmer and compressor
- Night Bundle Scheduler via WorkManager

7. Monetization Strategy

Monetization is respectful and optimized for long-term retention. Ads are only shown at natural breaks.

- Interstitial ads after successful downloads only
- Native ads integrated into Bento tiles
- Pro upgrade (\$1) via M-Pesa or Google Play
- Pro features: No watermark, 4K, batch downloads

8. Security, Privacy & Compliance

VUTA stores no user credentials and performs all processing locally. Permissions are requested contextually and transparently.

9. Performance Targets

- Cold start under 800ms on mid-range devices
- UI thread frame time under 16ms
- Download engine CPU usage capped per isolate
- Battery-aware background scheduling

10. Development Roadmap

- Sprint 1: Core parsing and isolate engine
- Sprint 2: UI system and animations
- Sprint 3: Platform integrations (WhatsApp, M-Pesa)
- Sprint 4: Ads, Pro, optimization, release prep

11. Project Folder Structure

vuta/ lib/ core/ features/ services/ main.dart assets/ images/ fonts/ pubspec.yaml