





GRASSROOT (LOCAL GOVERNMENT) MOBILE APP & WEB PORTAL DEVELOPMENT

Grassroot App... “Connecting Communities. Empowering Local Government.”

Grassroot App... “Together we build stronger communities.”

S/N	AREAS OF PROJECT	DESCRIPTIONS
	BACKGROUND INFORMATION	<p>See the idea below</p> <div> <div>LG APP for Community A</div>  </div> <div> <div>LG APP for Community B</div>  </div> <div> <div>LG APP for Community C</div>  </div> <div> <div>LG APP for Community D</div>  </div>

Residents can request:

- Pothole repairs
- Streetlight repairs
- Sanitation/garbage pickup
- Water leak reporting
- Environmental hazard reporting

Include:

- Photo upload
- GPS location tagging
- Case status tracking

Why critical: Most local issues start at the neighborhood level.

3. Digital Payments & e-Services (Pull)

Residents can pay:

- Local taxes
- Utility bills
- Permits (business, construction)
- Parking fees
- Market stall fees
- Licensing fees

Why critical: Revenue leakage reduction + convenience.

4. Local News & Government Announcements (Push)

Updates from:

- Mayor/chairperson
- Council meetings
- Policy changes
- Community programs
- Local awards, public events

Why critical: Builds transparency & civic participation.

5. Events & Community Engagement Calendar (Push/Pull)

- Town hall meetings

	<ul style="list-style-type: none"> • Farmers markets • Local festivals • Sports & youth programs • Public health campaigns • Volunteer opportunities <p>Why critical: Strengthens community cohesion.</p>	
	<p>6. Local Jobs & Opportunities Board</p> <ul style="list-style-type: none"> • Municipal job postings • Public works contracts • Youth apprenticeship opportunities • Training programs • Seasonal jobs (parks, sanitation) <p>Why critical: Supports economic empowerment at grassroots.</p>	
	<p>7. Business Directory & Local Marketplace</p> <p>Showcase:</p> <ul style="list-style-type: none"> • Local businesses • Street vendors • Farmers • Local artisans • Market prices (agriculture) <p>Option: Verified “Gov-Approved Vendor” badge.</p> <p>Why critical: Supports local economic development.</p>	
	<p>8. Waste Management & Sanitation Schedule</p> <ul style="list-style-type: none"> • Waste pickup calendar • Recycling schedule • Bulk waste disposal bookings • Alerts for delays <p>Why critical: Reduces illegal dumping & improves cleanliness.</p>	
	<p>9. Community Safety & Police Contact Center</p>	

- Report non-emergency issues
- Report abandoned vehicles
- Public safety tips
- Geo-tagged safety concerns

Why critical: Enhances grassroots safety collaboration.

10. Health & Social Services Hub

- Immunization schedules
- Public health notices
- Local clinic information
- Social assistance registration
- Seniors & disability services

Why critical: Accessible health information saves lives.

11. Local Government Forms & Document Center

Residents can access:

- Birth registration guidance
- Land documents (info only, no PHI)
- Business registration forms
- Building permit guidelines

Why critical: Reduces long lines at government offices.

12. Citizen Feedback & Polling Tool

Residents can participate in:

- Quick polls (“Which park project should we fund?”)
- Satisfaction surveys
- Public consultation

Why critical: Encourages participatory democracy.

13. Push Notifications by Ward/Zone/Subcounty

Hyper-target messages based on:

- Ward
- District

		<ul style="list-style-type: none"> • Village • Street <p>Why critical: Reduces irrelevant messages and increases adoption.</p> <p>14. Transparency & Budget Dashboard</p> <ul style="list-style-type: none"> • Local project budgets • Community development projects • Expenditure summaries • Contract award details (high-level only) <p>Why critical: Builds trust and reduces corruption.</p> <p>15. Disaster Reporting & Relief Coordination</p> <p>Residents can report:</p> <ul style="list-style-type: none"> • Flood-prone areas • Fire outbreaks • Damage photos • Relief needs <p>Why critical: Gives the local government real-time intelligence.</p>
1.	<p>SCOPE</p> <p>Mobile App Name:</p> <p>I'm still working on a brand name</p> <p>Logo design will follow</p> <p>Then website</p>	<p>Scope of the Project</p> <p>Phase 1 (MVP – Critical Features)</p> <ul style="list-style-type: none"> • Alerts & notifications • Service request portal • Community news • Digital payments • Sanitation schedule • Local events calendar • Business directory • Job board • Feedback & polling <p>Phase 2</p> <ul style="list-style-type: none"> • Disaster reporting system • Public safety module

		<ul style="list-style-type: none">• Transparency dashboard• Marketplace expansion <p>Phase 3</p> <ul style="list-style-type: none">• AI chatbot for residents• GIS mapping for assets• Multilingual support• Offline content mode <p>This mobile app will support local governments by:</p> <ul style="list-style-type: none">• Improving communication• Streamlining services• Increasing revenue• Enhancing transparency• Reducing administrative costs• Building trust with citizens• Providing emergency readiness• Monetization is ethical, sustainable, and community friendly.
2.	BUSINESS REQUIREMENTS	<p>Business Requirements (BRD)</p> <p>[1.] Resident Registration</p> <p>Residents sign up with:</p> <ul style="list-style-type: none">• Phone number or email• GPS location (optional)• Ward/zone selection <p>[NB: Resident in this community should be able to see ONLY information from their Local Government]</p> <p>[2.] Local Government Admin Accounts</p> <p>Roles:</p> <ul style="list-style-type: none">• Super admin• Ward officer• Sector officer• Emergency officer

- Communications team

[NB: These are the offers that should be able to update the web portal to push the notifications for their community]

[3.] Push Notifications

Admins can send:

- Emergency alerts
- Community news
- Event notices

[4.] Service Requests

Residents must submit:

- Type of issue
- Description
- Photo
- GPS location

Admins must assign service requests to appropriate departments.

[5.] Digital Payments

Secure payments for:

- Taxes
- Permits
- Fees
- Licenses
- Utilities

[NB: Residents should be able to remit payment for any of the indicated services to their Local Government]

[6.] Business Listing Management

Businesses can:

- Apply for listing (another revenue for the LG.)
- Pay for upgrades
- Update info

[This feature will allow local businesses to have a listing in their community, for advertisement, promotion, awareness and other publicity opportunities]

[7.] Multi-channel Feedback

Residents can participate in polls and surveys.

[The local Government have the capability to send out poll to residents in their community to get their opinions about relevant issues]

[8.] Data Analytics

Dashboard displays:

- Activities
- Revenue
- Issues
- Trends

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A. Digital Service Fees

- Permit fees
- Business license renewals
- Market stall payments
- Parking fees
- Utility bill payments

The app becomes a new revenue collection channel for the local Government

B. Verified Business Listings

Businesses pay for:

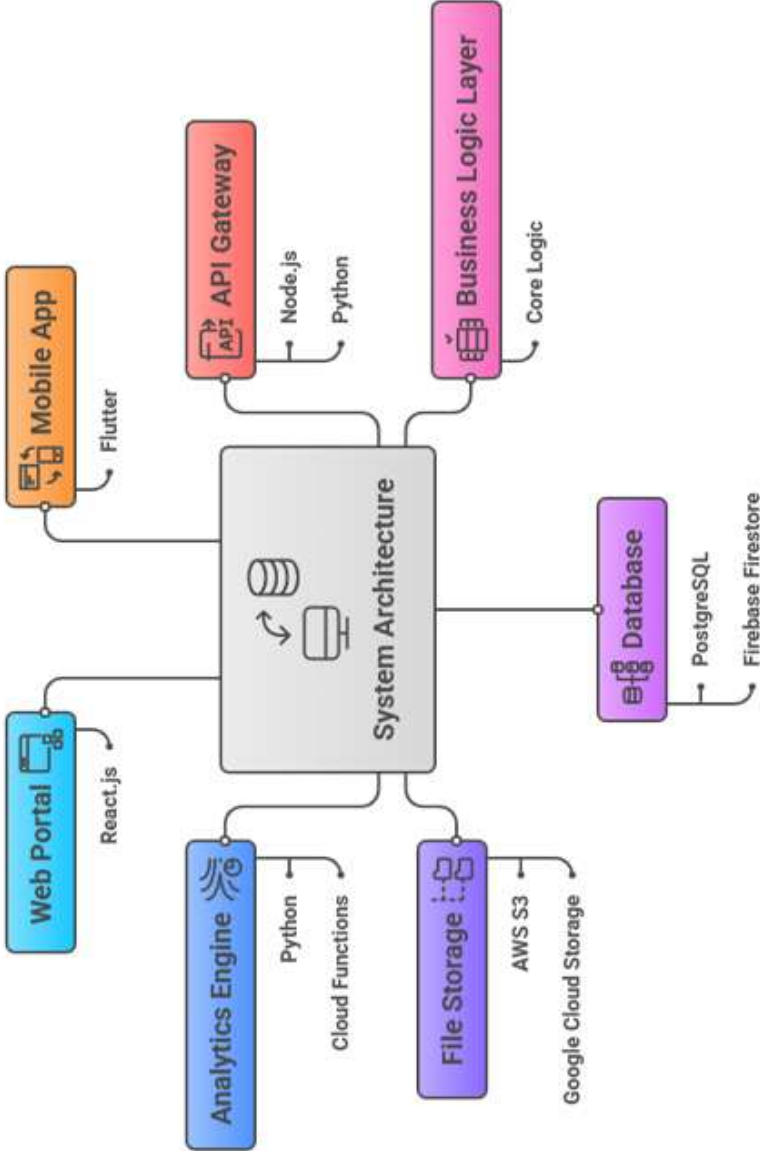
- Featured position
- “Local Government Approved” badge
- Sponsored listings on directory

C. Local Advertising (Ethical & Community-Focused)

- Local shops

		<ul style="list-style-type: none"> • Clinics • Taxi services • Restaurants • Schools • Farmers' associations <p>No intrusive ads — only relevant, approved ads.</p> <p>D. Transaction Fees on Certain Payments A minimal fee per transaction (e.g., \$0.10–\$0.50) such as:</p> <ul style="list-style-type: none"> • Permit renewals • Parking <p>E. Vendor Subscription Model Local businesses can pay monthly for:</p> <ul style="list-style-type: none"> • E-commerce listing • Delivery partnership • Payments integration
3.	FUNCTIONAL REQUIREMENTS	<p>Functional Requirements</p> <p>[1] – Resident Registration</p> <ul style="list-style-type: none"> • Phone/email login • Ward/zone selection <p>[2] – Push Alerts Module</p> <ul style="list-style-type: none"> • Emergency alerts • Ward-specific alerts <p>[3] – Service Requests</p> <ul style="list-style-type: none"> • Submit issue with photo • GPS tagging • Status tracking • Assigned department routing <p>[4] – Digital Payments</p>

		<ul style="list-style-type: none"> • Taxes • Utilities • Parking fees • Business permits <p>[5] – Directory</p> <ul style="list-style-type: none"> • Local business listings • Government-approved vendor badges <p>[6] – Local Jobs</p> <ul style="list-style-type: none"> • Government job postings • Private job listing portal <p>[7] – Sanitation Schedule</p> <ul style="list-style-type: none"> • Ward-level calendar • Day-of alerts <p>[8] – Feedback & Polls</p> <ul style="list-style-type: none"> • Single choice • Multi-choice • Satisfaction rating <p>[9] – Admin Dashboard</p> <ul style="list-style-type: none"> • Analytics • Revenue stats • Issue tracking • Alerts console
	DESIGN CORE MODULES	<p>Modules</p> <ol style="list-style-type: none"> 1. Alerts Center – send emergency notifications 2. Service Request Manager – track & assign tasks 3. Revenue Center – monitor payments, generate reports 4. Jobs & Opportunities – manage postings 5. Business Directory – approve or verify listing 6. Event Management System 7. Sanitation Management – schedule pickups 8. Public Safety Inbox – non-emergency reports 9. Health & Social Services Updates 10. Forms Repository – manage digital documents

		<div>11. Feedback & Poll Management</div> <div>12. Analytics Dashboard – real-time data visualization</div> <div>13. Ward/Zone-specific Messaging</div> <div>14. Budget Transparency Module</div> <div>15. Disaster Response Console</div>
SCHEMATIC SOLUTION		<div>System Architecture Overview</div>  <pre>graph TD; SA[System Architecture]; WP[Web Portal] -- React.js --> SA; MA[Mobile App] -- Flutter --> SA; AG[API Gateway] -- Node.js, Python --> SA; BL[Business Logic Layer] -- Core Logic --> SA; AE[Analytics Engine] -- Python, Cloud Functions --> SA; FS[File Storage] -- AWS S3, Google Cloud Storage --> SA; DB[(Database)] -- PostgreSQL, Firebase Firestore --> SA;</pre>

	TECHNICAL REQUIREMENTS	Technical Requirements (TRD) Frontend <ul style="list-style-type: none">• Flutter (iOS + Android app)• Responsive UI Backend <ul style="list-style-type: none">• Node.js / Python (Django or FastAPI)• RESTful API• Firebase or AWS SNS for notifications Database <ul style="list-style-type: none">• PostgreSQL (primary)• Redis (for caching & alerts) Hosting <ul style="list-style-type: none">• AWS / Azure / GCP• 99.9% uptime SLA Security <ul style="list-style-type: none">• AES-256 encryption• JWT authentication• Role-based access• GDPR + CCPA compatible Integrations <ul style="list-style-type: none">• Payment gateways (Stripe, Paystack, Flutterwave, Apple Pay, Google Pay)• GIS / Maps API• SMS gateway for offline users
	PRODUCT CATEGORIZATION	<ul style="list-style-type: none">▪ LGA Dashboard (for the LGA) – to push information<ul style="list-style-type: none">- Collect Initial fee- Annual Service Fees▪ End-user App (For everyone) – to pull information<ul style="list-style-type: none">- One time payment to download and install app.
	DELIVERABLES	These are the final deliverables

		<ul style="list-style-type: none">• iOS/Android mobile apps• Web portal• Admin dashboard• Documentation & API docs• Deployment setup• User guide
Benchmark Solution	DISNEY WORLD App NW Publisher App	<p>These two apps provide an excellent example of what this app is going to achieve</p> <ol style="list-style-type: none">1. Provide information to the residents is a location and this information will not spill to other community2. The residents will be issued a code(s) to connect to that community to prevent information leaking to another community.