

Rytzu Saas Technology Private Limited

Flutter Developer Interview Task: Advanced CRM with Communication Features

Objective

Design and implement a mobile CRM app in Flutter with core CRM functionality **plus real-time communication** features like **messaging and VoIP calls**, simulating a modern sales/support tool (similar to HubSpot + WhatsApp).

Core Requirements

1. Customer Management

- List customers with name, email, phone, and status (Active/Inactive).
- Add/edit/delete customers.
- Search & filter customers.
- Store customer data using **local storage or mock REST API**.

2. Messaging Module

- Chat screen similar to WhatsApp:
 - 1:1 chat between CRM user and customer (mocked).
 - Real-time messaging using **WebSocket**, socket.io, or Firebase.
 - Chat bubble UI.
 - Message timestamps, delivery indicators.

3. VoIP Call Simulation

- Use flutter_webrtc or similar to simulate:
 - Call initiation and receiving.
 - Call screen UI (with mute, speaker, end call).
 - Show call logs.
- **Bonus:** Integrate with [Agora.io](https://agora.io), Twilio, or similar SDK for actual call functionality (if feasible in task time).

4. Authentication (Mocked)

- Simple login screen (email + password).
- Basic role-based access (Admin, Agent – optional).

5. UI/UX

- Clean, modern layout with navigation drawer or bottom nav bar.
 - Responsive design for tablet/mobile.
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✦ Optional/Bonus Features

- Push notifications (Firebase).
 - CRM pipeline view (Kanban for leads).
 - Contact sync (with phone's contact list – permission-based).
 - Export customer data to PDF/CSV.
 - Voice message support in chat.
 - Chat groups or broadcast (basic implementation).
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📁 Technical Expectations

- Use modern **state management** (Riverpod, Bloc, or Cubit preferred).
 - Code should follow **clean architecture** (separate data, domain, and presentation layers).
 - Reusable, testable components.
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📄 Submission Guidelines

- **Deliverables:** GitHub repo or zipped project with Apk.
 - Include a **README** with:
 - Project setup instructions.
 - Features implemented.
 - Notes on architecture and design decisions.
 - (Optional) Screenshots or screen recording.
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