Autsai – Backend Developer Jr. Assignment

Role: Junior Backend Developer
Deadline: 25/07/2025
Submit to: goautsai@gmail.com; gianmarcomaz.dev.autsai@gmail.com

Objective

This assignment is part of the technical evaluation process for the Junior Backend Developer position at Autsai. Your task is to build a simplified messaging system using Firebase. The goal is to assess your backend development skills, especially your ability to work with user authentication, data modeling, and basic communication logic.

We've divided the assignment into **three levels**. **The first tier is required.** The rest **are optional** and will help us understand how far you can go on your own.

Tier 1 – Required Features (Core Assignment)

You must complete the following to be considered for the interview:

1. User Authentication

- Use Firebase Authentication

- Implement user registration and login

2. One-on-One Messaging

- Allow two users to send and receive messages

- Store messages in Firebase Firestore or Realtime Database

- Include message timestamps

3. Code Quality & Communication

- Your code should be clearly organized and readable

- Include basic error handling

- Provide a short video (max 5 minutes) that walks us through:

  - How to use your app

  - How the data is stored in Firebase

Tier 2 – Bonus Features (Optional)

These are optional. Implementing any of them will give us a better idea of your skill range.

- Group chat creation

- Add or remove users from a group chat

- Ability to delete or edit your Firebase user account

- Edit profile info (e.g. name or avatar)

Tier 3 – Advanced Features (Only If You're Confident)

These are considered advanced and are **not expected** from junior candidates. Only implement these if you have time and are confident in your skills.

- Reply to specific messages (like quoting in WhatsApp)

- Pinning or favoriting specific messages

- Typing indicators or read receipts

If you attempt these, explain your approach in the README or video.

Technical Requirements

- **Backend**: Firebase (Authentication + Firestore or Realtime Database)

- **Language**: JavaScript, TypeScript, or Node.js (other languages allowed if you're confident)

- **Frontend**: Optional – feel free to use a simple UI or test endpoints with Postman/Insomnia

- **Codebase**: Submit with a README including:

    - Setup instructions

    - Any decisions you made about structure or features

Submission Checklist

Submit the following by [25/07/2025]:

1. Project folder with all relevant code

2. README with setup instructions and notes

3. Short video (max 5 minutes):

    - Demo of app functionality

    - Firebase data structure walkthrough

Videos can be shared via Google Drive, Loom, or similar; just make sure we have access.

Evaluation Criteria

Area	Focus
Core Functionality	Completion of Tier 1 features
Firebase Integration	Use of Firebase Auth and data storage
Code Structure	Readability, modularity, and clarity
Communication	How well you explain your solution
Bonus Effort	Any Tier 2 or 3 features added thoughtfully

Deadline

Please complete and send your assignment by **[25/07/2025].** If you need more time, let us know in advance.

If you have any questions or need clarification, feel free to reach out.

Autsai Team
Go offline. Go Autsai.