

1. **Technology Stack:**

- Use .NET 8 or higher.
- Use C# for backend development.
- Use a SQL database (e.g., SQLite, SQL Server) for data storage.
- You may use an in-memory database for testing purposes.
- Implement RESTful APIs for communication.

2. **Core Features:**

○ **Template Management:**

- Create an API to add, update, delete, and retrieve communication templates. Each template should have:
 - A unique ID
 - A name
 - A subject
 - A body (which can include placeholders for customer data)

○ **Customer Management:**

- Create an API to add, update, delete, and retrieve customer information. Each customer should have:
 - A unique ID
 - A name
 - An email address

○ **Send Communication:**

- Implement an API endpoint to send a message to a customer using a selected template. The API should replace placeholders in the template with actual customer data and simulate sending the message (e.g., by logging it to the console).

3. **Documentation:**

- Provide documentation on how to set up and run your application, including any dependencies.
- Include API documentation, either inline or using a tool like Swagger.

4. **Testing:**

- Write unit tests for your APIs to demonstrate their functionality and reliability.

5. **Bonus (Optional):**

- Add authentication to secure the API endpoints.
- Anything else you find interesting

Submission:

- Please submit your code in a Git repository (e.g., GitHub, GitLab) along with instructions on how to run it. Ensure your code is well-structured and follows best practices.
- Good luck!