

# Contact Management API Development

*Use of AI service (e.g. ChatGPT) or copy-paste code is totally forbidden during this task.*

## Objective:

Develop a RESTful API using .NET 8 to manage a list of contacts. Each contact should have the following attributes:

- ID (unique identifier). Must be a string Guid.
- First Name
- Last Name
- Email Address
- Phone Number

## Requirements:

1. **API Endpoints:** The API should include endpoints to:
  - Add a new contact
  - Retrieve all contacts
  - Retrieve a single contact by ID
  - Update a contact by ID
  - Delete a contact by ID
2. **Data Storage:** Use any kind of database storage of your choice to store the contact data.
3. **No User Interface Needed:** You can add Swagger UI to your projects in order to simulate your endpoints.
4. **Validation:** Implement basic validation:
  - Ensure that the email address is in a valid format.
  - Ensure that the phone number contains only digits.
5. **No authorization or authentication is required at all.**
6. **Error Handling:** Implement basic error handling to return appropriate responses for things like not found (404) or bad request (400).

## Deliverables:

- Source code pushed to a GitHub repository. Please share the repository link with us.

## Evaluation Criteria:

- **Code Organization:** Assess how the candidate structures the code and separates concerns.
- **Adherence to .NET Practices:** Look for proper use of .NET features such as async/await, dependency injection, etc.
- **Error Handling:** Check how the developer handles potential exceptions and errors.
- **Validation Logic:** Evaluate the robustness and correctness of the validation logic.
- **API Design:** Assess the RESTful design principles applied in the API.