

API Specifications for Customer Relationship Management Tool

Create Customer API

Introduction:

This document outlines the "Create Customer" API for the Customer Relationship Management (CRM) system, developed using Java Spring Boot. The API enables users to add new customer records to the system while ensuring data accuracy and preventing duplicate entries.

The API is designed according to RESTful principles, making it straightforward to implement and integrate. This document provides a detailed overview of the API's functionality, including its purpose, endpoint URL, input parameters, expected output, and potential error responses.

API Specification:

- **Purpose of the API:**

This API is designed to create a new customer in the CRM system. It handles data validation, checks for existing customers, inserts the new customer record into the database, and logs the operation.

- **URL:**

POST /api/customers/create
(To be updated during implementation)

- **Authentication Details:**

Authentication Type: Bearer Token (JWT)

Requirement: The request must include a valid JWT token in the Authorization header. Unauthorized requests will be rejected with a **401 Unauthorized** response.

- **Expected Input Parameters:**

- `firstName` (String, Required): The first name of the customer. Must not be empty, max length: 50 characters.
- `lastName` (String, Required): The last name of the customer. Must not be empty, max length: 50 characters.
- `email` (String, Required): The customer's email address. Must be a valid email format, unique across records.
- `phoneNumber` (String, Optional): The customer's phone number. Must be a valid phone number format.
- `address` (String, Optional): The customer's address, max length: 100 characters.

- **Expected Output:**

Success:

- Status Code: `201 Created`
- Response Body:
`{"message": "Customer created successfully", "customerId": "12345"}`

Failure:

- Status Code: `400 Bad Request`
- Response Body: `{ "error": "Invalid data format" }`

- **Possible Error Messages:**

- `400 Bad Request`: Invalid input data or data format.
- `409 Conflict`: Customer already exists.
- `500 Internal Server Error`: Database insertion error.
- `500 Internal Server Error`: Failed to record operation.