

# **RESTAURANT MANAGEMENT SYSTEM**

**Higher National Diploma in Software Engineering**

**EAD-2 Project Documentation**

**24.1F**

National Institute of Business Management

Kandy Regional Center

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## **Declaration**

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**Project Title:** Restaurant Management System

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# Overview

This document outlines the REST API endpoints for managing items and payments in a Restaurant Management System. The system allows for basic CRUD (Create, Read, Update, and Delete) operations on restaurant items and payments. The following are the available endpoints categorized into two sections: **Items** and **Payments**.

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## 1. Items API Endpoints

These endpoints are used for managing restaurant menu items such as food, beverages, or other products available in the restaurant.

### GET /api/items

- **Description:** Retrieves all items in the restaurant.
- **Method:** GET
- **Response:**

```
{
  "id": 2,
  "name": "bun",
  "price": 2000
}
```

### GET /api/items/{id}

- **Description:** Retrieves a specific item by its unique ID.
- **Method:** GET
- **Path Parameter:**
  - id: The unique identifier of the item to retrieve.
- **Response:**

```
{
  "id": 2,
  "name": "bun",
  "price": 2000
}
```

## POST /api/items

- **Description:** Creates a new item in the restaurant menu.
- **Method:** POST
- **Response:**

```
{
  "message": "Item created successfully",
  "item": {
    "id": 2,
    "name": "bun",
    "price": 2000
  }
}
```

## PUT /api/items/{id}

- **Description:** Updates an existing item by its unique ID.
- **Method:** PUT
- **Path Parameter:**
  - `id`: The unique identifier of the item to update.
- **Response:**

```
{
  "message": "Item updated successfully",
  "item": {
    "id": 2,
    "name": "bun",
    "price": 2500
  }
}
```

## DELETE /api/items/{id}

- **Description:** Deletes an item from the restaurant menu by its unique ID.
- **Method:** DELETE
- **Path Parameter:**
  - `id`: The unique identifier of the item to delete.
- **Response:**

```
{  
  "message": "Item deleted successfully"  
}
```

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## 2. Payments API Endpoints

These endpoints are used for managing payments in the restaurant system, including customer payments for orders.

### GET /api/payments

- **Description:** Retrieves all payment records made in the restaurant.
- **Method:** GET
- **Response:** A list of all payment records with details

### GET /api/payments/{id}

- **Description:** Retrieves a specific payment record by its unique ID.
- **Method:** GET
- **Path Parameter:**
  - `id`: The unique identifier of the payment to retrieve.
- **Response:** The details of the requested payment record.

### POST /api/payments

- **Description:** Creates a new payment record.
- **Method:** POST
- **Response:** A confirmation message along with the created payment record's details.

## PUT /api/payments/{id}

- **Description:** Updates an existing payment record by its unique ID.
- **Method:** PUT
- **Path Parameter:**
  - `id`: The unique identifier of the payment to update.
- **Response:** A confirmation message with the updated payment details.

## DELETE /api/payments/{id}

- **Description:** Deletes a payment record by its unique ID.
- **Method:** DELETE
- **Path Parameter:**
  - `id`: The unique identifier of the payment to delete.
- **Response:** A confirmation message indicating successful deletion.

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## Summary

The Restaurant Management System API provides two primary sets of functionalities:

1. **Item Management:** Operations for creating, retrieving, updating, and deleting restaurant items.
2. **Payment Management:** Operations for managing customer payments.

Each endpoint is designed to be straightforward, with standard HTTP methods and simple URL structures, ensuring easy integration with front-end systems or external applications for managing restaurant operations.