

# COVID-19 Vaccination Appointment Service API Documentation

## Overview

The COVID-19 Vaccination Appointment Service API allows patients to check the availability of vaccination appointment slots, book appointments, cancel appointments, and list all existing appointments.

## Base URL

- Base URL: `http://localhost:5000` (when running locally)

## Endpoints

GET `/check_availability`

### Description

Check the availability of a vaccination appointment slot for a specific date and time.

### Request

#### - URL Parameters:

- **date** (string, required): The date for the appointment in the format "YYYY-MM-DD".
- **time** (string, required): The time for the appointment in the format "HH:MM AM/PM".

### Response

- Status Code: 200 OK
- Body: JSON object with the following fields:
  - **message** (string): A message indicating the availability status.

POST `/book_appointment`

### Description

Book a vaccination appointment slot for a specific date and time.

### Request

- Body: JSON object with the following fields:
  - **date** (string, required): The date for the appointment in the format "YYYY-MM-DD".
  - **time** (string, required): The time for the appointment in the format "HH:MM AM/PM".

### Response

- Status Code: 200 OK
- Body: JSON object with the following fields:
  - message (string): A message indicating the result of the booking.
  - status\_code (integer): HTTP status code (200).
- Status Code: 404 Not Found
- Body: JSON object with the following fields:
  - message (string): A message indicating that the slot is not available or not found.
  - status\_code (integer): HTTP status code (404).

POST /cancel\_appointment/{appointment\_id}

### Description

Cancel an existing vaccination appointment by providing the appointment ID.

### Request

- URL Parameters:
  - **appointment\_id** (integer, required): The ID of the appointment to cancel.

### Response

- Status Code: 200 OK
- Body: JSON object with the following fields:
  - message (string): A message indicating the result of the cancellation.
  - status\_code (integer): HTTP status code (200).
- Status Code: 404 Not Found
- Body: JSON object with the following fields:
  - message (string): A message indicating that the appointment with the provided ID was not found.
  - status\_code (integer): HTTP status code (404).

GET /list\_appointments

### Description

List all existing vaccination appointments.

## Response

- Status Code: 200 OK
- Body: JSON array containing a list of appointment objects. Each object has the following fields:
  - **id** (integer): The unique ID of the appointment.
  - **date** (string): The date of the appointment in the format "YYYY-MM-DD".
  - **time** (string): The time of the appointment in the format "HH:MM AM/PM".
  - **available** (boolean): Indicates whether the appointment slot is available.

## Error Handling

The API may return the following error responses:

- Status Code: 400 Bad Request
- Body: JSON object with