

# API Documentation for Django App

## Overview

This API provides endpoints for managing a classroom scheduling system, including teachers, subjects, classes, and classroom bookings.

## Base URL

The base URL for all API endpoints is: `{your_domain}/api/`

## Endpoints

### 1. Create Teacher

- **URL:** `/api/teachers/`
- **Method:** POST
- **Description:** Create a new teacher

#### Request Body:

json

```
{  
  "name": "string",  
  "email": "string",  
  "subject": "string"  
}
```

#### Response:

- Status Code: 201 (Created)
- Body: Created teacher object

### 2. Create Subject

- **URL:** `/api/subjects/`
- **Method:** POST
- **Description:** Create a new subject

**Request Body:**

json

```
{  
  "name": "string",  
  "code": "string"  
}
```

- **Response:**

- Status Code: 201 (Created)
- Body: Created subject object

### 3. Create Class

- **URL:** `/api/classes/`
- **Method:** POST
- **Description:** Create a new class

**Request Body:**

json

```
{  
  "name": "string",  
  "grade": "integer"  
}
```

- **Response:**

- Status Code: 201 (Created)
- Body: Created class object

### 4. Create Class Subject

- **URL:** `/api/class-subjects/`
- **Method:** POST
- **Description:** Associate a subject with a class

**Request Body:**

json

```
{  
  "class": "integer",  
}
```

```
"subject": "integer"
}
```

- **Response:**
  - Status Code: 201 (Created)
  - Body: Created class-subject association object

## 5. Generate Schedule

- **URL:** `/api/generate-schedule/`
- **Method:** GET
  - **Description:** Generate a timetable schedule
- **Query Parameters:**
  - `num_days` (optional): Number of days to generate schedule for (default: 6)
- **Response:**
  - Status Code: 200 (OK)
  - Body: HTML rendering of the generated timetable

## 6. Book Slot

- **URL:** `/api/book-slot/`
- **Method:** POST
- **Description:** Book a time slot

### Request Body:

```
json
{
  "day": "string",
  "time": "string",
  "class": "integer",
  "subject": "integer",
  "teacher": "integer"
}
```

- **Response:**
  - Status Code: 201 (Created)
  - Body: Confirmation message

## 7. Create Classroom

- **URL:** `/api/classrooms/`
- **Method:** POST
- **Description:** Create a new classroom

### Request Body:

json

```
{  
  "name": "string",  
  "capacity": "integer",  
  "classroom_type": "integer"  
}
```

- **Response:**
  - Status Code: 201 (Created)
  - Body: Created classroom object

## 8. Create Classroom Type

- **URL:** `/api/classroom-types/`
- **Method:** POST
- **Description:** Create a new classroom type

### Request Body:

json

```
{  
  "name": "string"  
}
```

- **Response:**
  - Status Code: 201 (Created)
  - Body: Confirmation message with created classroom type ID

## 9. Book Classroom

- **URL:** `/api/book-classroom/`
- **Method:** POST
- **Description:** Book a classroom for a specific hour

**Request Body:**

json

```
{  
  "classroom_id": "integer",  
  "hour": "integer"  
}
```

- **Response:**
  - Status Code: 201 (Created)
  - Body: Confirmation message

## Error Responses

All endpoints may return the following error responses:

- 400 Bad Request: If the request data is invalid
- 404 Not Found: If a requested resource is not found
- 500 Internal Server Error: If there's a server-side error

## Versioning

This are the APIs on 1oct, using backtracking approach. The input method would probably change soon.