# Appointment API Documentation

#### Base URL

/api/appointments

## Create Appointment

• URL: /api/appointments

• Method: POST

- **Description**: Creates a new appointment.
- Request Parameters:
  - doctorUsername (String): Username of the doctor.
  - patientId (Long): ID of the patient.
  - appointmentDate (ISO 8601 DateTime): Date and time of the appointment.
  - location (String): Location of the appointment.
- Response: 201 Created

```
"id": "Long",
  "patientId": "Long",
  "doctorId": "Long",
  "appointmentDate": "ISO 8601 DateTime",
  "location": "String",
  "status": "String",
  "createdAt": "ISO 8601 DateTime"
}
```

• Note: appointmentDate must be in ISO 8601 format (YYYY-MM-DDTHH: MM:SS).

## Get Appointments by Doctor

- URL: /api/appointments/doctor/{doctorId}
- Method: GET
- **Description**: Retrieves all appointments for a specific doctor.
- Path Parameter:
  - doctorId (Long): ID of the doctor.

• Response: 200 OK
[
 "id": "Long",
 "patientId": "Long",
 "doctorId": "Long",
 "appointmentDate": "ISO 8601 DateTime",
 "location": "String",
 "status": "String",
 "createdAt": "ISO 8601 DateTime"
 }
]

## Get Appointments by Patient

- URL: /api/appointments/patient/{patientId}
- Method: GET
- Description: Retrieves all appointments for a specific patient.
- Path Parameter:
  - patientId (Long): ID of the patient.
- Response: 200 OK

## Get Appointments by Location

- URL: /api/appointments/location
- Method: GET
- **Description**: Retrieves all appointments at a specific location.
- Query Parameter:
  - location (String): Location of the appointment.
- Response: 200 OK

#### Get Appointments by Status

- URL: /api/appointments/status
- Method: GET
- Description: Retrieves all appointments with a specific status.
- Query Parameter:
  - status (String): Status of the appointments (e.g., "active", "canceled").
- Response: 200 OK

### Delete Appointment

- URL: /api/appointments/{appointmentId}
- Method: DELETE
- **Description**: Deletes an appointment by ID.
- Path Parameter:
  - appointmentId (Long): ID of the appointment.
- Response: 204 No Content

#### Update Appointment Status

- URL: /api/appointments/{appointmentId}/status
- Method: PUT
- Description: Updates the status of an appointment.
- Path Parameter:
  - appointmentId (Long): ID of the appointment.
- Request Parameter:
  - status (String): New status of the appointment.
- Response: 200 OK

```
{
  "id": "Long",
  "patientId": "Long",
  "doctorId": "Long",
  "appointmentDate": "ISO 8601 DateTime",
  "location": "String",
  "status": "String",
  "createdAt": "ISO 8601 DateTime"
}
```

- Error Responses:
  - 400 Bad Request: Invalid status provided.

#### Get Appointments by Date Range

- URL: /api/appointments/date-range
- Method: GET
- Description: Retrieves appointments within a specified date range.
- Query Parameters:
  - start (ISO 8601 DateTime): Start of the date range.
  - end (ISO 8601 DateTime): End of the date range.

•	${\bf Response:}$	200	OK

Note: Dates should be provided in ISO 8601 format (YYYY-MM-DDTHH:MM:SS).

# **Medical Records API Documentation**

 $Base\ URL: \verb|/api/medical-records|$ 

## **Endpoints**

```
Create Medical Record
```

```
POST /
```

Creates a new medical record.

```
Request Body:
```

```
"patientId": "long",
  "doctorId": "long",
  "dateOfVisit": "datetime",
  "location": "string",
  "diagnosis": "string",
  "treatmentPlan": "string",
  "notes": "string"
}
Response: 200 OK
  "id": "long",
  "patientId": "long",
  "doctorId": "long",
  "dateOfVisit": "datetime",
  "location": "string",
  "diagnosis": "string",
  "treatmentPlan": "string",
```

#### Get All Medical Records

"notes": "string",
"createdAt": "datetime"

GET /

Retrieves all medical records.

```
Response: 200 OK
```

```
.
1
```

#### Get Records by Patient

GET /patient/{patientId}

Retrieves all medical records for a specific patient.

Path Parameters: - patientId (long): ID of the patient

Response: 200 OK Array of medical record responses

#### Get Records by Doctor

GET /doctor/{doctorId}

Retrieves all medical records for a specific doctor.

Path Parameters: - doctorId (long): ID of the doctor

Response: 200 OK Array of medical record responses

#### Get Records by Patient and Doctor

GET /patient/{patientId}/doctor/{doctorId}

Retrieves all medical records for a specific patient-doctor combination.

Path Parameters: - patientId (long): ID of the patient - doctorId (long): ID of the doctor

Response: 200 OK Array of medical record responses

#### Get Records by Location

GET /location

Retrieves all medical records from a specific location.

Query Parameters: - location (string): Location name or identifier

Response: 200 OK Array of medical record responses

## Get Records by Date Range

GET /date-range

Retrieves all medical records within a specified date range.

Query Parameters: - startDate (datetime, ISO 8601 format): Start of date range - endDate (datetime, ISO 8601 format): End of date range

#### **Example Request:**

GET /api/medical-records/date-range?startDate=2024-01-01T00:00:00Z&endDate=2024-02-01T00:00

Response: 200 OK Array of medical record responses

#### Search Medical Records

POST /search

Searches medical records based on multiple criteria.

### Request Body:

```
"patientId": "long",
  "doctorId": "long",
  "startDate": "datetime",
  "endDate": "datetime",
  "location": "string",
  "diagnosisOrTreatment": "string",
}
```

Response: 200 OK Array of medical record responses

#### **Data Models**

## ${\bf Medical Record Request}$

```
{
   "patientId": "long",
   "doctorId": "long",
   "dateOfVisit": "datetime",
   "location": "string",
   "diagnosis": "string",
   "treatmentPlan": "string",
   "notes": "string"
}
```

#### MedicalRecordResponse

```
{
  "id": "long",
  "patientId": "long",
  "doctorId": "long",
  "dateOfVisit": "datetime",
  "location": "string",
  "diagnosis": "string",
  "treatmentPlan": "string",
  "notes": "string",
```

```
"createdAt": "datetime"
}

MedicalRecordSearchCriteria
{
    "patientId": "long",
    "doctorId": "long",
    "startDate": "datetime",
    "endDate": "datetime",
    "location": "string",
    "diagnosisOrTreatment": "string"
}
```

#### **Date Format**

All date time fields should be provided in ISO 8601 format: - Example: 2024-01-01T00:00:00Z

## **Error Responses**

All endpoints may return these error responses: - 400 Bad Request: Invalid request parameters or body - 404 Not Found: Requested resource not found - 500 Internal Server Error: Server error

## Medications API Documentation

Base URL: /api/medications

## **Authorization Requirements**

All endpoints require: - Valid username parameter - Staff role - Specific privilege level: - editor: Basic medication management - supervisor: Advanced querying and listing

## **Endpoints**

```
Add Medication
```

```
POST /
```

Creates a new medication record.

Required Authorization: - Staff role - editor privilege

Query Parameters: - username (string): Username of the requesting user

```
Request Body:
```

```
{
   "medicationName": "string",
   "dosage": "string",
   "frequency": "string",
   "startDate": "datetime",
   "endDate": "datetime",
   "medicalRecordId": "long"
}
```

```
Responses: - 201 Created: Medication created successfully json {
"id": "long", "medicationName": "string", "dosage":
"string", "frequency": "string", "startDate": "datetime",
"endDate": "datetime", "medicalRecordId": "long", "createdAt":
"datetime" } - 400 Bad Request: "Invalid medication request" - 500
Internal Server Error: "An error occurred"
```

#### Get All Medications

```
GET /
```

Retrieves all medications.

Required Authorization: - Staff role - supervisor privilege

Query Parameters: - username (string): Username of the requesting user

Response: 200 OK Array of medication responses

#### Get Medications by Medical Record

GET /record/{medicalRecordId}

Retrieves all medications associated with a specific medical record.

Required Authorization: - Staff role - editor privilege

Path Parameters: - medicalRecordId (long): ID of the medical record

Query Parameters: - username (string): Username of the requesting user

Responses: - 200 OK: Array of medication responses - 404 Not Found: "Medical record not found" - 500 Internal Server Error: "An error occurred"

#### Delete Medication

DELETE /{medicationId}

Deletes a specific medication.

Required Authorization: - Staff role - editor privilege

Path Parameters: - medicationId (long): ID of the medication to delete

Query Parameters: - username (string): Username of the requesting user

Responses: - 204 No Content: "Medication deleted successfully" - 404 Not Found: "Medication not found" - 500 Internal Server Error: "An error occurred"

#### **Get Active Medications**

GET /active

Retrieves all currently active medications.

Required Authorization: - Staff role - supervisor privilege

Query Parameters: - username (string): Username of the requesting user

Response: 200 OK Array of medication responses

#### Search Medications by Name

GET /search

Searches medications by name pattern.

Required Authorization: - Staff role - supervisor privilege

Query Parameters: - name (string): Medication name search pattern -

username (string): Username of the requesting user

Response: 200 OK Array of medication responses

#### **Get Expiring Medications**

```
GET /expiring
```

Retrieves medications that are expiring soon.

Required Authorization: - Staff role - editor privilege

Query Parameters: - username (string): Username of the requesting user

Response: 200 OK Array of medication responses

#### **Data Models**

#### ${\bf Medication Request}$

```
{
   "medicationName": "string",
   "dosage": "string",
   "frequency": "string",
   "startDate": "datetime",
   "endDate": "datetime",
   "medicalRecordId": "long"
}
```

#### MedicationResponse

```
{
  "id": "long",
  "medicationName": "string",
  "dosage": "string",
  "frequency": "string",
  "startDate": "datetime",
  "endDate": "datetime",
  "medicalRecordId": "long",
  "createdAt": "datetime"
}
```

## Common Error Responses

All endpoints may return these error responses: - 400 Bad Request: Invalid request parameters or body - 401 Unauthorized: Missing or invalid username - 403 Forbidden: Insufficient privileges or invalid role - 404 Not Found: Requested resource not found - 500 Internal Server Error: Server error

#### **Date Format**

All date time fields should be provided in ISO 8601 format: - Example: 2024-01-01T00:00:00Z

# Patient Management API Documentation

Base URL: /api/patients

#### **Authorization Levels**

This API uses role-based access control with the following privileges: - editor: Can create and view patients - supervisor: Can perform searches, deletions, and advanced operations

```
Endpoints
Create Patient
POST /
Creates a new patient record.
Required Role: editor
Query Parameters: - username (string): Username of the requesting user
Request Body:
{
  "firstName": "string",
  "lastName": "string",
  "dob": "date",
  "gender": "string",
  "address": "string",
  "phoneNumber": "string",
  "emergencyContact": "string",
  "emergencyContactPhone": "string"
}
Responses: - 201 Created: Patient created successfully json
         "firstName": "string",
                                        "lastName": "string",
                                         "address": "string",
"dob": "date", "gender": "string",
                                                                  "emergencyContactPhone":
"phoneNumber": "string",
                             "emergencyContact": "string",
            "createdAt": "datetime"
                                         } - 400 Bad Request: Invalid
request data - 403 Forbidden: Insufficient privileges
Get All Patients
GET /
Retrieves all patients.
Required Role: editor
Query Parameters: - username (string): Username of the requesting user
```

#### Get Patient by Login

GET /

Retrieves a patient's own information using their login credentials.

#### Request Body:

```
{
   "username": "string",
   "password": "string"
}
```

Responses: - 200 OK: Full patient information - 400 Bad Request: Invalid credentials - 403 Forbidden: Access denied

#### Delete Patient

DELETE /{patientId}

Deletes a patient record.

Required Role: supervisor

Path Parameters: - patientId (long): ID of the patient to delete

Query Parameters: - username (string): Username of the requesting user

**Responses:** - 204 No Content: Patient successfully deleted - 403 Forbidden: Insufficient privileges - 404 Not Found: Patient not found

## Search Endpoints

Search by Last Name

GET /search/lastname

Required Role: supervisor

Query Parameters: - lastName (string): Last name to search for - username (string): Username of the requesting user

```
Response: 200 OK
{
    "id": "long",
    "firstName": "string",
    "lastName": "string",
    "phoneNumber": "string"
  }
1
Keyword Search
GET /search/keyword
Required Role: supervisor
Query Parameters: - keyword (string): Search term - username (string):
Username of the requesting user
Response: 200 OK
Г
    "id": "long",
    "firstName": "string",
    "lastName": "string",
    "dob": "date",
    "gender": "string",
    "phoneNumber": "string"
]
Search by Age Range
GET /search/age-range
Required Role: supervisor
Query Parameters: - minAge (integer): Minimum age - maxAge (integer):
Maximum age - username (string): Username of the requesting user
Response: 200 OK
{
    "id": "long",
    "firstName": "string",
    "lastName": "string",
    "dob": "date",
    "gender": "string",
```

```
}
]
Data Models
PatientRequest
{
  "firstName": "string",
  "lastName": "string",
  "dob": "date",
  "gender": "string",
  "address": "string",
  "phoneNumber": "string",
  "emergencyContact": "string",
  "emergencyContactPhone": "string"
}
PatientResponse
  "id": "long",
  "firstName": "string",
  "lastName": "string",
  "dob": "date",
  "gender": "string",
  "address": "string",
  "phoneNumber": "string",
  "emergencyContact": "string",
  "emergencyContactPhone": "string",
  "createdAt": "datetime"
}
PatientSearch
  "id": "long",
  "firstName": "string",
  "lastName": "string",
  "dob": "date",
  "gender": "string",
  "phoneNumber": "string"
}
```

"phoneNumber": "string"

## **PatientSummary**

```
{
  "id": "long",
  "firstName": "string",
  "lastName": "string",
  "phoneNumber": "string"
}
```

## **Error Responses**

All endpoints may return these error responses: - 400 Bad Request: Invalid request parameters or body - 403 Forbidden: Insufficient privileges or unauthorized access - 404 Not Found: Requested resource not found - 500 Internal Server Error: Server error

# Prescription API Documentation

#### Base URL

/api/prescriptions

#### **Create Prescription**

- ullet URL: /api/prescriptions
- Method: POST
- **Description**: Creates a new prescription.
- Request Body:

```
{
   "medicalRecordId": "Long",
   "medicationId": "Long",
   "doctorId": "Long",
   "instructions": "String",
   "issuedDate": "ISO 8601 DateTime"
}
```

• Response: 201 Created

```
{
  "id": "Long",
  "medicalRecordId": "Long",
  "medicationId": "Long",
  "doctorId": "Long",
  "instructions": "String",
  "issuedDate": "ISO 8601 DateTime",
  "createdAt": "ISO 8601 DateTime"
}
```

- Error Responses:
  - 500 Internal Server Error: An error occurred while creating the prescription.

#### **Delete Prescription**

- URL: /api/prescriptions/{id}
- Method: DELETE

- **Description**: Deletes a prescription by ID.
- Path Parameter:
  - id: ID of the prescription to delete.
- Response: 200 OK
  - Success message: "Prescription deleted successfully"
- Error Responses:
  - 404 Not Found: Prescription not found.
  - 500 Internal Server Error: An error occurred while deleting the prescription.

#### **Get All Prescriptions**

• URL: /api/prescriptions

• Method: GET

• Description: Retrieves all prescriptions.

• Response: 200 OK
[
 "id": "Long",
 "medicalRecordId": "Long",
 "medicationId": "Long",
 "doctorId": "Long",
 "instructions": "String",
 "issuedDate": "ISO 8601 DateTime",
 "createdAt": "ISO 8601 DateTime"
}

- Error Responses:
  - 500 Internal Server Error: An error occurred while fetching prescriptions.

#### Get Prescriptions by Medical Record

- URL: /api/prescriptions/medicalRecord/{medicalRecordId}
- Method: GET
- **Description**: Retrieves prescriptions associated with a specific medical record.
- Path Parameter:
  - medicalRecordId: ID of the medical record.
- Response: 200 OK

- Error Responses:
  - 404 Not Found: Medical record not found.
  - 500 Internal Server Error: An error occurred while fetching prescriptions by medical record.

#### Get Prescriptions by Doctor

- URL: /api/prescriptions/doctor/{doctorId}
- Method: GET
- **Description**: Retrieves prescriptions created by a specific doctor.
- Path Parameter:
  - doctorId: ID of the doctor.
- Response: 200 OK
- Error Responses:
  - 404 Not Found: Doctor not found.
  - 500 Internal Server Error: An error occurred while fetching prescriptions by doctor.

## Get Prescriptions by Medication

- URL: /api/prescriptions/medication/{medicationId}
- Method: GET
- **Description**: Retrieves prescriptions for a specific medication.
- Path Parameter:
  - medicationId: ID of the medication.
- **Response**: 200 OK
- Error Responses:
  - 404 Not Found: Medication not found.
  - 500 Internal Server Error: An error occurred while fetching prescriptions by medication.

#### Get Active Prescriptions

- URL: /api/prescriptions/active
- Method: GET
- **Description**: Retrieves all active prescriptions.
- Response: 200 OK
- Error Responses:
  - 500 Internal Server Error: An error occurred while fetching active prescriptions.

## Get Prescriptions by Date Range

- URL: /api/prescriptions/dateRange
- Method: GET
- **Description**: Retrieves prescriptions issued within a specified date range.
- Query Parameters:
  - startDate: Start date in ISO 8601 DateTime format.
  - endDate: End date in ISO 8601 DateTime format.
- Response: 200 OK
- Error Responses:
  - 500 Internal Server Error: An error occurred while fetching prescriptions by date range.

#### Get Prescriptions by Patient ID

- URL: /api/prescriptions/patient/{patientId}
- Method: GET
- **Description**: Retrieves prescriptions associated with a specific patient.
- Path Parameter:
  - patientId: ID of the patient.
- Response: 200 OK
- Error Responses:
  - 404 Not Found: Patient not found.
  - 500 Internal Server Error: An error occurred while fetching prescriptions by patient.

# **Progress Report API Documentation**

#### Base URL

/api/progress-reports

#### Create Progress Report

- URL: /api/progress-reports
- Method: POST
- **Description**: Creates a new progress report.
- Request Body:

```
{
   "patientId": "Long",
   "caregiverId": "Long",
   "date": "ISO 8601 DateTime",
   "summary": "String",
   "recommendations": "String"
}
```

• Response: 200 OK

```
{
  "id": "Long",
  "patientId": "Long",
  "caregiverId": "Long",
  "date": "ISO 8601 DateTime",
  "summary": "String",
  "recommendations": "String",
  "createdAt": "ISO 8601 DateTime"
}
```

#### Delete Progress Report

- URL: /api/progress-reports/{id}
- Method: DELETE
- **Description**: Deletes a progress report by ID.
- Path Parameter:
  - id (Long): ID of the progress report.
- Response: 204 No Content

## Get All Progress Reports

- URL: /api/progress-reports
- Method: GET
- Description: Retrieves all progress reports.
- Response: 200 OK

## Get Reports by Patient

- URL: /api/progress-reports/patient/{patientId}
- Method: GET
- **Description**: Retrieves all progress reports for a specific patient.
- Path Parameter:
  - patientId (Long): ID of the patient.
- Response: 200 OK

## Get Reports by Caregiver

- URL: /api/progress-reports/caregiver/{caregiverId}
- Method: GET
- Description: Retrieves all progress reports for a specific caregiver.
- Path Parameter:
  - caregiverId (Long): ID of the caregiver.
- Response: 200 OK

## Get Reports by Date Range

- URL: /api/progress-reports/range
- Method: GET
- **Description**: Retrieves progress reports within a specified date range.
- Query Parameters:
  - start (ISO 8601 Date Time): Start of the date range.
  - end (ISO 8601 DateTime): End of the date range.
- Response: 200 OK

Search Reports by Keyword

- URL: /api/progress-reports/search
- Method: GET
- **Description**: Searches progress reports by a keyword in the summary or recommendations.
- Query Parameter:
  - keyword (String): Keyword to search in the report content.
- Response: 200 OK

Note: Dates should be provided in ISO 8601 format (YYYY-MM-DDTHH:MM:SS).

# User Management API Documentation

Base URL: /api/users

## **Authentication Endpoints**

```
Register User
POST /register
Creates a new user account.
Request Body:
  "username": "string",
  "firstName": "string",
  "secondName": "string",
  "password": "string",
  "email": "string",
  "primaryLocation": "string",
  "role": "string",
  "privileges": "string"
}
Response: 201 Created
  "id": "long",
  "username": "string",
  "firstName": "string",
  "secondName": "string",
  "email": "string",
  "primaryLocation": "string",
  "secondaryLocation": "string",
  "phoneNumber": "string",
  "role": "string",
  "privileges": "string",
  "createdAt": "datetime"
}
Login
POST /login
Authenticates a user.
Request Body:
  "username": "string",
```

```
"password": "string"
Responses: - 200 OK: "Login successful" - 401 Unauthorized: Error message
User Management Endpoints
Update User
PUT /{id}
Updates an existing user's information.
Request Body:
  "email": "string",
  "primaryLocation": "string",
  "secondaryLocation": "string",
  "phoneNumber": "string",
  "role": "string",
  "privileges": "string"
}
Response: 200 OK
  "id": "long",
  "username": "string",
  // ... (same as registration response)
Delete User
DELETE /delete
Deletes a user account.
Request Body:
  "username": "string",
  "password": "string"
Responses: - 204 No Content: User deleted successfully - 404 Not Found:
Error message
Validate User Access
```

GET /{id}/validate

Validates user access privileges.

Parameters: - id (path): User ID - required\_access (query): Required access level

Responses: - 200 OK: "Access granted" - 403 Forbidden: "Access denied" - 404 Not Found: "User not found" - 500 Internal Server Error: "An error occurred"

## Search and Filter Endpoints

## Find by Username

```
GET /username/{username}
Response: 200 OK
{
    "id": "long",
    "username": "string",
    // ... (same as registration response)
}
```

#### Find by Role

GET /role/{role}

Response: 200 OK Array of user objects

## Find by Privileges

GET /privileges/{privileges}

Response: 200 OK Array of user objects

#### Find by Email

GET /email/{email}

Response: 200 OK Array of user objects

#### Find by Primary Location

GET /primary-location/{primaryLocation}

Response: 200 OK Array of user objects

## Find by Secondary Location

GET /secondary-location/{secondaryLocation}

Response: 200 OK Array of user objects

## Find by Role and Privileges

```
GET /role/{role}/privileges/{privileges}
```

Response: 200 OK Array of user objects

#### Search Users

```
GET /search/{searchTerm}
```

Performs a general search across user data.

Response: 200 OK Array of user objects

## **Error Responses**

All endpoints may return the following error responses:

- 400 Bad Request: Invalid request parameters or body
- 401 Unauthorized: Authentication required or failed
- 403 Forbidden: Insufficient permissions
- 404 Not Found: Resource not found
- 500 Internal Server Error: Server-side error

## **Data Models**

#### UserRegistrationRequest

```
{
  "username": "string",
  "firstName": "string",
  "secondName": "string",
  "password": "string",
  "email": "string",
  "primaryLocation": "string",
  "role": "string",
  "privileges": "string"
}

UserUpdateRequest
{
```

```
"email": "string",
  "primaryLocation": "string",
  "secondaryLocation": "string",
  "phoneNumber": "string",
  "role": "string",
  "privileges": "string"
}
```

## UserResponse

```
{
  "id": "long",
  "username": "string",
"firstName": "string",
  "secondName": "string",
  "email": "string",
  "primaryLocation": "string",
  "secondaryLocation": "string",
  "phoneNumber": "string",
  "role": "string",
  "privileges": "string",
  "createdAt": "datetime"
}
{\bf Login Request}
  "username": "string",
  "password": "string"
}
```