*The Hospital Application Backend is a comprehensive API built on Spring Boot, designed to manage various aspects of hospital operations. It offers functionalities to handle patient, doctor, appointment, and hospital data. Through RESTful endpoints, it allows users to perform operations such as fetching appointments, saving new appointments, retrieving doctor appointments by ID, deleting appointments, and checking appointment conflicts.*

**Endpoints:**

***1- Get list Patients***

Description: Lists all patients. Id, name, surname, gender, password and contact are returned.

Address: <http://localhost:8080/HospitalApplication/patients>

Method: GET

Returns: JSON Array:

{

"p\_id": "663020e609cbf930eee32c46",

"name": "Jane",

"surname": "Smith",

"gender": "Female",

"password": "password2",

"contact": "987654321"

},

{

"p\_id": "663020e609cbf930eee32c47",

"name": "Michael",

"surname": "Johnson",

"gender": "Male",

"password": "password3",

"contact": "111222333"

},

***2- Save new Patient***

Description: Save new patients by Id, name, surname, gender, password and contact.

Address: <http://localhost:8080/HospitalApplication/patients/save>

Method: POST

Returns: JSON Array:

{

"p\_id": "56254213891723",

"name": "Suleyman",

"surname": "Berber",

"gender": "Male",

"password": "pa1",

"contact": "12312319"

}

***3- Get list Doctors***

Description: Lists all Doctors. H\_id, doctor\_id, name, surname, gender, profession, hospital and title are returned.

Address: <http://localhost:8080/HospitalApplication/doctors>

Method: GET

Returns: JSON Array:

{

"doctor\_id": "663020e609cbf930eee32c4f",

"h\_id": "hosp001",

"name": "John",

"surname": "Smith",

"gender": "Male",

"profession": "Cardiologist",

"title": "Dr.",

"hospital": "ANKARA HOSPITAL"

},

{

"doctor\_id": "663020e609cbf930eee32c50",

"h\_id": "hosp001",

"name": "Emily",

"surname": "Johnson",

"gender": "Female",

"profession": "Pediatrician",

"title": "Dr.",

"hospital": "ISTANBUL HOSPITAL"

},

***4- Save new Doctor***

Description: Save new doctors by h\_id, doctor\_id, name, surname, gender, profession, hospital and title.

Address: <http://localhost:8080/HospitalApplication/doctors/save>

Method: POST

Returns: JSON Array:

{

"doctor\_id": "1111",

"h\_id": "hhgvyhfgy",

"name": "Dogan",

"surname": "Turk",

"gender": "Male",

"profession": "Cardiologist",

"title": "Prof.",

"hospital": "URFA HOSPITAL"

}

***5- Get list Hospitals***

Description: Lists all hospitals. H\_id is returned.

Address: [http://localhost:8080/HospitalApplication/hospitals](http://localhost:8080/HospitalApplication/hospitalsdoctors)

Method: GET

Returns: JSON Array:

{

"h\_id": "ANKARA HOSPITAL"

},

{

"h\_id": "ISTANBUL HOSPITAL"

},

***6- Get Doctors list works in given Hospital***

Description: Lists doctor list which work in given hospital. H\_id, doctor\_id, name, surname, gender, profession, hospital and title are returned.

Address: [http://localhost:8080/HospitalApplication/hospitals/doctor\_list/{hospital\_ID}](http://localhost:8080/HospitalApplication/hospitals/doctor_list/%7bhospital_ID%7d)

Method: GET

Returns: JSON Array:

{

"doctor\_id": "663020e609cbf930eee32c51",

"h\_id": "hosp002",

"name": "Michael",

"surname": "Williams",

"gender": "Male",

"profession": "Neurologist",

"title": "Dr.",

"hospital": "ISTANBUL HOSPITAL"

},

{

"doctor\_id": "663020e609cbf930eee32c54",

"h\_id": "hosp003",

"name": "Olivia",

"surname": "Davis",

"gender": "Female",

"profession": "Orthopedic Surgeon",

"title": "Dr.",

"hospital": "ISTANBUL HOSPITAL"

},

***7- Save new Hospital***

Description: Save new hospitals by h\_id.

Address: <http://localhost:8080/HospitalApplication/hospitals/save>

Method: POST

Returns: JSON Array:

{

"h\_id": "KONYA HOSPITAL"

}

***8- Get Patient information with given id***

Description: Get patient. Id, name, surname, gender, password and contact are returned.

Address: [http://localhost:8080/HospitalApplication/patients/infobypatientID/{p\_id}](http://localhost:8080/HospitalApplication/patients/infobypatientID/%7bp_id%7d)

Method: GET

Returns: JSON Array:

{

"p\_id": "663020e609cbf930eee32c46",

"name": "Jane",

"surname": "Smith",

"gender": "Female",

"password": "password2",

"contact": "987654321"

}

***9- Get List of Appointments***

Description: Get list of appointments. a\_id, patient, doctor, datetime are returned.

Address: <http://localhost:8080/HospitalApplication/appointments>

Method: GET

Returns: JSON Array:

{

"a\_id": "663020e609cbf930eee32c5a",

"patient": {

"p\_id": "663020e609cbf930eee32c4d",

"name": "William",

"surname": "Hill",

"gender": "Male",

"password": "password9",

"contact": "111222333"

},

"doctor": {

"doctor\_id": "663020e609cbf930eee32c58",

"h\_id": "hosp005",

"name": "Ava",

"surname": "Anderson",

"gender": "Female",

"profession": "Gynecologist",

"title": "Dr.",

"hospital": "IZMIR HOSPITAL"

},

"datetime": "2024-04-17T09:00:00"

},

***10- Save new Appointment***

Description: Save appointment by a\_id, patient, doctor, datetime.

Address: <http://localhost:8080/HospitalApplication/appointments/save>

Method: POST

Returns: JSON Array:

{

"a\_id": "432145",

"patient": {

"p\_id": "663020e609cbf930eee32c4c",

"name": "Emma",

"surname": "Clark",

"gender": "Female",

"password": "password8",

"contact": "777888999"

},

"doctor": {

"doctor\_id": "663020e609cbf930eee32c54",

"h\_id": "hosp003",

"name": "Olivia",

"surname": "Davis",

"gender": "Female",

"profession": "Orthopedic Surgeon",

"title": "Dr.",

"hospital": "ISTANBUL HOSPITAL"

},

"datetime": "2024-04-17T21:30:00"

}

***11- Get List of Appointments which given Doctor***

Description: Get list of appointments of the doctor with given doctor id. a\_id, patient, doctor, datetime are returned.

Address:[http://localhost:8080/HospitalApplication/appointments/doctor\_appointments/{doctor\_id}](http://localhost:8080/HospitalApplication/appointments/doctor_appointments/%7bdoctor_id%7d)

Method: GET

Returns: JSON Array:

{

"a\_id": "663020e609cbf930eee32c59",

"patient": {

"p\_id": "663020e609cbf930eee32c4c",

"name": "Emma",

"surname": "Clark",

"gender": "Female",

"password": "password8",

"contact": "777888999"

},

"doctor": {

"doctor\_id": "663020e609cbf930eee32c54",

"h\_id": "hosp003",

"name": "Olivia",

"surname": "Davis",

"gender": "Female",

"profession": "Orthopedic Surgeon",

"title": "Dr.",

"hospital": "ISTANBUL HOSPITAL"

},

"datetime": "2024-04-17T09:30:00"

},

{

"a\_id": "663020e609cbf930eee32c5e",

"patient": {

"p\_id": "663020e609cbf930eee32c4c",

"name": "Emma",

"surname": "Clark",

"gender": "Female",

"password": "password8",

"contact": "777888999"

},

"doctor": {

"doctor\_id": "663020e609cbf930eee32c54",

"h\_id": "hosp003",

"name": "Olivia",

"surname": "Davis",

"gender": "Female",

"profession": "Orthopedic Surgeon",

"title": "Dr.",

"hospital": "ISTANBUL HOSPITAL"

},

"datetime": "2024-04-17T11:30:00"

},

***12- Get List of Appointments which given Patient***

Description: Get list of appointments of the patient with given patient id. a\_id, patient, doctor, datetime are returned.

Address:[http://localhost:8080/HospitalApplication/appointments/patient\_appointments/{patient\_id}](http://localhost:8080/HospitalApplication/appointments/patient_appointments/%7bpatient_id%7d)

Method: GET

Returns: JSON Array:

{

"a\_id": "663020e609cbf930eee32c59",

"patient": {

"p\_id": "663020e609cbf930eee32c4c",

"name": "Emma",

"surname": "Clark",

"gender": "Female",

"password": "password8",

"contact": "777888999"

},

"doctor": {

"doctor\_id": "663020e609cbf930eee32c54",

"h\_id": "hosp003",

"name": "Olivia",

"surname": "Davis",

"gender": "Female",

"profession": "Orthopedic Surgeon",

"title": "Dr.",

"hospital": "ISTANBUL HOSPITAL"

},

"datetime": "2024-04-17T09:30:00"

},

{

"a\_id": "663020e609cbf930eee32c5b",

"patient": {

"p\_id": "663020e609cbf930eee32c4c",

"name": "Emma",

"surname": "Clark",

"gender": "Female",

"password": "password8",

"contact": "777888999"

},

"doctor": {

"doctor\_id": "663020e609cbf930eee32c4f",

"h\_id": "hosp001",

"name": "John",

"surname": "Smith",

"gender": "Male",

"profession": "Cardiologist",

"title": "Dr.",

"hospital": "ANKARA HOSPITAL"

},

"datetime": "2024-04-17T11:30:00"

},

***12- Get List of Appointments which given Doctor on given date***

Description: Get list of appointments of the doctor on given date with given doctor id. a\_id, patient, doctor, datetime are returned.

Address: [http://localhost:8080/HospitalApplication/appointments/doctor\_appointments\_at\_date/{doctor\_id}/{appointmentDate}](http://localhost:8080/HospitalApplication/appointments/doctor_appointments_at_date/%7bdoctor_id%7d/%7bappointmentDate%7d)

Method: GET

Returns: JSON Array:

[

{

"a\_id": "663020e609cbf930eee32c5e",

"patient": {

"p\_id": "663020e609cbf930eee32c4c",

"name": "Emma",

"surname": "Clark",

"gender": "Female",

"password": "password8",

"contact": "777888999"

},

"doctor": {

"doctor\_id": "663020e609cbf930eee32c54",

"h\_id": "hosp003",

"name": "Olivia",

"surname": "Davis",

"gender": "Female",

"profession": "Orthopedic Surgeon",

"title": "Dr.",

"hospital": "ISTANBUL HOSPITAL"

},

"datetime": "2024-04-17T11:30:00"

},

{

"a\_id": "432145",

"patient": {

"p\_id": "663020e609cbf930eee32c4c",

"name": "Emma",

"surname": "Clark",

"gender": "Female",

"password": "password8",

"contact": "777888999"

},

"doctor": {

"doctor\_id": "663020e609cbf930eee32c54",

"h\_id": "hosp003",

"name": "Olivia",

"surname": "Davis",

"gender": "Female",

"profession": "Orthopedic Surgeon",

"title": "Dr.",

"hospital": "ISTANBUL HOSPITAL"

},

"datetime": "2024-04-17T21:30:00"

}

]

***12- Delete Appointment which given appointment id***

Description: Delete the appointment which given a\_id.

Address: [http://localhost:8080/HospitalApplication/appointments/delete/{a\_id}](http://localhost:8080/HospitalApplication/appointments/delete/%7ba_id%7d)

Method: POST

Returns: JSON Array:

Appointment is deleted!