

Clinic Challenge

ClinicChallenge is a Rails-based API service for managing doctor appointments. This service allows users to create, update, and delete appointments, and provides information about doctors' availability and working hours.

Prerequisites

- Docker
- Docker Compose

Setup

Clone the repository

```
git clone https://github.com/dmferrari/clinic-challenge.git
cd clinic_challenge
```

Create environment variables file

Create a .env file in the root directory with the following content:

```
POSTGRES_USER=your_postgres_user
POSTGRES_PASSWORD=your_postgres_password
POSTGRES_DB=clinic_challenge_development
REDIS_URL=redis://redis:6379/1
JWT_SECRET_KEY=your_jwt_secret_key
```

Build and start the services

```
docker compose up --build
```

Set up the database:

When the previous command finishes, open a new terminal window, go to the project directory and run the following commands:

```
docker compose run web bin/rails db:create db:migrate db:seed
```

Usage

Access the Rails console

```
docker compose run web bin/rails c
```

To test this, you can access the latest appointment created by running the following command:

```
Appointment.last
```

This should return something like:

```
Appointment Load (0.5ms) SELECT "appointments".* FROM "appointments" WHERE
"appointments"."deleted_at" IS NULL ORDER BY "appointments"."id" DESC LIMIT $1
[["LIMIT", 1]]
=>
#<Appointment:0x00007f33c428aad8
 id: 73,
 doctor_id: 6,
 patient_id: 106,
 appointment_date: Thu, 23 May 2024 00:00:00.000000000 UTC +00:00,
 start_time: "14:00",
 end_time: "15:00",
 created_at: Mon, 20 May 2024 15:37:02.125789000 UTC +00:00,
 updated_at: Mon, 20 May 2024 15:37:02.125789000 UTC +00:00,
 deleted_at: nil>
```

Access the Rails server

The application will be available at <http://localhost:3000>.

There is nothing to see here.

Sidekiq dashboard

The Sidekiq dashboard can be accessed at <http://localhost:3000/sidekiq>.

API Endpoints

Authentication

Login:

```
POST /api/v1/users/login
```

Example:

```
curl -i --request POST \  
  --url http://localhost:3000/api/v1/users/login \  
  --header 'Content-Type: application/json' \  
  --data '{  
    "user": {  
      "email": "dmferrari@gmail.com",  
      "password": "password"  
    }  
  }'
```

In the header of the response you will receive the **token** that you will use to authenticate the other requests.

Response:

```
HTTP/1.1 200 OK
x-frame-options: SAMEORIGIN
x-xss-protection: 0
x-content-type-options: nosniff
x-permitted-cross-domain-policies: none
referrer-policy: strict-origin-when-cross-origin
content-type: application/json; charset=utf-8
vary: Accept
authorization: Bearer
eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiIxMTIiLCJzY3AiOiJ1c2VyIiwiaXVkiIjpudWxsLCJpYXQiOiJlE3MTYyMDE3ODgsImV4cCI6MTcxNjI4ODE4OCwianRpIjoib2QwOTJiZjYtNDgzMC00MGY0LWI0NTItNGM3YTU2NmFjMzg0In0.ZhDivr5cDcQ4BqRRZjuJDIGl8ftRtp3zU5d_Eh-Xltw
cache-control: no-store, must-revalidate, private, max-age=0
x-request-id: 61760a27-4d82-463f-8173-8fcf9a7154bc
x-runtime: 0.219707
server-timing: start_processing.action_controller;dur=0.03,
sql.active_record;dur=0.58, instantiation.active_record;dur=0.05,
render.active_model_serializers;dur=0.18, process_action.action_controller;dur=214.51
x-miniprofiler-original-cache-control: max-age=0, private, must-revalidate
x-miniprofiler-ids:
bcr60cgpyowrpxfuaf1x,dj8ga1yuj4o2yhdrqt9n,q9h7vakssnpplzk73bql,b1ctmtyr5r96galqg5bs,z1
vslj92olb3s6hvb0jl,iem1rp4bsf9j8z116pnc,xw2dts24gpo23re1r3mh,7zb5isgdgv2nbqf41q24,2i03
hy565et8vpyptfy02,qefsm1zly2tn6f8w84ke,6gc75ud47ucasxlnbl9l,li1c9vtqjuka0mm4bdxa,ygy1gw
8lrxhit3xrbogk,at0prj6s2p8vtmmifbp5,l0qy4gy46xg6off07oly,rbpc6j6odilry6t3yhm7,7cu67a08
0gicqe47o97l,6cc3gv0745cjr29u0gla,ruhw7a2aphhh293vljea,4byxhssg66h1rpofhd79
set-cookie: __profilin=p%3Dt; path=/; httponly; SameSite=Lax
Content-Length: 206

{"message":"logged in successfully","user":{"id":112,"full_name":"Willis
Little","email":"dmferrari@gmail.com","created_at":"2024-05-
20T10:03:50.432Z","updated_at":"2024-05-20T10:03:50.432Z","locale":"en"}}%
```

Logout:

```
DELETE /api/v1/users/logout
```

Appointments

Get all appointments

```
GET /api/v1/appointments
```

Example:

```
curl --request GET \
  --url http://localhost:3000/api/v1/appointments/ \
  --header 'Authorization: Bearer eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiIxMTIiLCJzY3AiOiJ1c2VyIiwiaXVkiIjpudWxsLCJpYXQiOiJE3MTYyMDE3ODgsImV4cCI6MTcxNjI4ODE4OCwianRpIjoib2QwOTJiZjYtNDgzMC00MGY0LWI0NTItNGM3YTU2NmFjMzg4In0.ZhDivr5cDcQ4BqRRZjuJDIGl8ftRtp3zU5d_Eh-X1tw' \
  --header 'Content-Type: application/json'
```

Response:

```
[
  {
    "id": 92,
    "appointment_date": "2024-05-25",
    "start_time": "14:00",
    "end_time": "14:30",
    "doctor": {
      "id": 5,
      "full_name": "Duane Fritsch DO",
      "email": "nu@oconnell.example",
      "specialty": "Neurology",
      "session_length": 30
    },
    "patient": {
      "id": 112,
      "full_name": "Willis Little",
      "email": "dmferrari@gmail.com"
    }
  },
  {
    "id": 93,
    "appointment_date": "2024-05-25",
    "start_time": "14:00",
    "end_time": "14:15",
    "doctor": {
      "id": 6,
      "full_name": "Dr. Russ Brown",
      "email": "esteban@willms.test",
      "specialty": "Gastroenterology",
      "session_length": 15
    },
    "patient": {
      "id": 112,
      "full_name": "Willis Little",
      "email": "dmferrari@gmail.com"
    }
  },
  {
    "id": 94,
    "appointment_date": "2024-05-23",
    "start_time": "14:00",
    "end_time": "15:00",
    "doctor": {
      "id": 7,
      "full_name": "Chadwick Rosenbaum",
      "email": "bertie_durgan@hills-huel.test",
      "specialty": "Radiology",
      "session_length": 60
    },
    "patient": {
```

```
    "id": 112,
    "full_name": "Willis Little",
    "email": "dmferrari@gmail.com"
  }
}
```

Get a specific appointment

```
GET /api/v1/appointments/:id
```

Example:

```
curl --request GET \
  --url http://localhost:3000/api/v1/appointments/93 \
  --header 'Authorization: Bearer eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiIxMTIiLCJzY3AiOiJ1c2VyIiwiaXVkiIjpudWxsLCJpYXQiOiJlE3MTYyMDE3ODgsImV4cCI6MTcxNjI4ODE4OCwianRpIjoib2QwOTJiZjYtNDgzMC00MGY0LWI0NTItNGM3YTU2NmFjMzg5In0.ZhDivr5cDcQ4BqRRZjuJDIGl8ftRtp3zU5d_Eh-Xltw' \
  --header 'Content-Type: application/json'
```

Response:

```
{
  "id": 93,
  "appointment_date": "2024-05-25",
  "start_time": "14:00",
  "end_time": "14:15",
  "doctor": {
    "id": 6,
    "full_name": "Dr. Russ Brown",
    "email": "esteban@willms.test",
    "specialty": "Gastroenterology",
    "session_length": 15
  },
  "patient": {
    "id": 112,
    "full_name": "Willis Little",
    "email": "dmferrari@gmail.com"
  }
}
```

Create an appointment

POST /api/v1/appointments

Example:

```
curl --request POST \
  --url http://localhost:3000/api/v1/appointments \
  --header 'Authorization: Bearer eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiIxMTIiLCJzY3AiOiJ1c2VyIiwiaXVkiIjpudWxsLCJpYXQiOiJlE3MTYyMDE3ODgsImV4cCI6MTcxNjI4ODE4OCwianRpIjoIn2QwOTJiZjYtNDgzMC00MGY0LWI0NTItNGM3YTU2NmFjMzg4In0.ZhDivr5cDcQ4BqRRZjuJDIGl8ftRtp3zU5d_Eh-Xltw' \
  --header 'Content-Type: application/json' \
  --data '{
  "appointment": {
    "doctor_id": "5",
    "appointment_date": "2024-05-25",
    "start_time": "14:00"
  }
}'
```

Response:

```
{
  "id": 92,
  "appointment_date": "2024-05-25",
  "start_time": "14:00",
  "end_time": "14:30",
  "doctor": {
    "id": 5,
    "full_name": "Duane Fritsch DO",
    "email": "nu@oconnell.example",
    "specialty": "Neurology",
    "session_length": 30
  },
  "patient": {
    "id": 112,
    "full_name": "Willis Little",
    "email": "dmferrari@gmail.com"
  }
}
```

Update an appointment

PUT /api/v1/appointments/:id

Example:

```
curl --request PUT \
  --url http://localhost:3000/api/v1/appointments/92 \
  --header 'Authorization: Bearer eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiIxMTIiLCJzY3AiOiJ1c2VyIiwiaXVkiIjpudWxsLCJpYXQiOiJlE3MTYyMDE3ODgsImV4cCI6MTcxNjI4ODE4OCwianRpIjoib2QwOTJiZjYtNDgzMC00MGY0LWI0NTItNGM3YTU2NmFjMzg4In0.ZhDivr5cDcQ4BqRRZjuJDIGl8ftRtp3zU5d_Eh-Xltw' \
  --header 'Content-Type: application/json' \
  --data '{
  "appointment": {
    "appointment_date": "2024-5-23",
    "start_time": "12:05"
  }
}'
```

Response:

```
{
  "id": 92,
  "appointment_date": "2024-05-23",
  "start_time": "12:05",
  "end_time": "12:35",
  "doctor": {
    "id": 5,
    "full_name": "Duane Fritsch DO",
    "email": "nu@oconnell.example",
    "specialty": "Neurology",
    "session_length": 30
  },
  "patient": {
    "id": 112,
    "full_name": "Willis Little",
    "email": "dmferrari@gmail.com"
  }
}
```

Delete an appointment

```
DELETE /api/v1/appointments/:id
```

Example:

```
curl --request DELETE \  
  --url http://localhost:3000/api/v1/appointments/79 \  
  --header 'Authorization: Bearer eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiIxMTIiLCJzY3AiOiJ1c2VyIiwiaXVkiIjpudWxsLCJpYXQiOiJlE3MTYyMDE3ODgsImV4cCI6MTcxNjI4ODE4OCwianRpIjoib2QwOTJiZjYtNDgzMC00MGY0LWI0NTItNGM3YTU2NmFjMzg4In0.ZhDivr5cDcQ4BqRRZjuJDIGl8ftRtp3zU5d_Eh-Xltw'
```

Response:

```
no content
```

Doctors

Get doctor working hours for a specific date

```
GET /api/v1/doctors/:id/working_hours/:date
```

Example:

```
curl --request GET \  
  --url http://localhost:3000/api/v1/doctors/2/working_hours/2024-05-25 \  
  --header 'Authorization: Bearer eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiIxMTIiLCJzY3AiOiJ1c2VyIiwiaXVkiIjpudWxsLCJpYXQiOiJlE3MTYyMDE3ODgsImV4cCI6MTcxNjI4ODE4OCwianRpIjoib2QwOTJiZjYtNDgzMC00MGY0LWI0NTItNGM3YTU2NmFjMzg4In0.ZhDivr5cDcQ4BqRRZjuJDIGl8ftRtp3zU5d_Eh-Xltw'
```

Response:

```
[  
  {  
    "date": "2024-05-25",  
    "start_time": "10:00",  
    "end_time": "16:00"  
  }  
]
```

Get doctor working hours for the next 7 days

```
GET /api/v1/doctors/:id/working_hours
```

Example:

```
curl --request GET \  
  --url http://localhost:3000/api/v1/doctors/5/working_hours \  
  --header 'Authorization: Bearer eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiIxMTIiLCJzY3AiOiJ1c2VyIiwiaXVkiIjpudWxsLCJpYXQiOiJlE3MTYyMDE3ODgsImV4cCI6MTcxNjI4ODE4OCwianRpIjoib2QwOTJiZjYtNDgzMC00MGY0LWI0NTI0tNGM3YTU2NmFjMzg4In0.ZhDivr5cDcQ4BqRRZjuJDIGl8ftRtp3zU5d_Eh-X1tw'
```

Response:

```
[
  {
    "date": "2024-05-20",
    "start_time": "09:00",
    "end_time": "18:00"
  },
  {
    "date": "2024-05-21",
    "start_time": "09:00",
    "end_time": "16:00"
  },
  {
    "date": "2024-05-22",
    "start_time": "09:00",
    "end_time": "18:00"
  },
  {
    "date": "2024-05-23",
    "start_time": "10:00",
    "end_time": "17:00"
  },
  {
    "date": "2024-05-24",
    "start_time": "10:00",
    "end_time": "16:00"
  },
  {
    "date": "2024-05-25",
    "start_time": "10:00",
    "end_time": "17:00"
  },
  {
    "date": "2024-05-26",
    "start_time": "08:00",
    "end_time": "19:00"
  }
]
```

Get doctor availability for a specific date

```
GET /api/v1/doctors/:id/availability/:date
```

Example:

```
curl --request GET \
  --url http://localhost:3000/api/v1/doctors/5/availability/2024-05-25 \
  --header 'Authorization: Bearer eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiIxMTIiLCJzY3AiOiJ1c2VyIiwiaXVkiIjpudWxsLCJpYXQiOiJE3MTYyMDE3ODgsImV4cCI6MTcxNjI4ODE4OCwianRpIjoIn2QwOTJiZjYtNDgzMC00MGY0LWI0NTItNGM3YTU2NmFjMzg4In0.ZhDivr5cDcQ4BqRRZjuJDIGl8ftRtp3zU5d_Eh-Xltw'
```

Response:

```
[
  {
    "date": "2024-05-25",
    "start_time": "10:30",
    "end_time": "11:00"
  },
  {
    "date": "2024-05-25",
    "start_time": "11:30",
    "end_time": "12:00"
  },
  {
    "date": "2024-05-25",
    "start_time": "12:30",
    "end_time": "17:00"
  }
]
```

Get doctor availability for the next 7 days

```
GET /api/v1/doctors/:id/availability
```

Example:

```
curl --request GET \
  --url http://localhost:3000/api/v1/doctors/5/availability \
  --header 'Authorization: Bearer eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiIxMTIiLCJzY3AiOiJ1c2VyIiwiaXVkiIjpudWxsLCJpYXQiOiJE3MTYyMDE3ODgsImV4cCI6MTcxNjI4ODE4OCwianRpIjoIn2QwOTJiZjYtNDgzMC00MGY0LWI0NTItNGM3YTU2NmFjMzg4In0.ZhDivr5cDcQ4BqRRZjuJDIGl8ftRtp3zU5d_Eh-Xltw'
```

Response:

```
[
  {
    "date": "2024-05-20",
    "start_time": "09:30",
    "end_time": "18:00"
  },
  {
    "date": "2024-05-21",
    "start_time": "09:00",
    "end_time": "14:00"
  },
  {
    "date": "2024-05-21",
    "start_time": "14:30",
    "end_time": "15:00"
  },
  {
    "date": "2024-05-21",
    "start_time": "15:30",
    "end_time": "16:00"
  },
  {
    "date": "2024-05-22",
    "start_time": "09:00",
    "end_time": "18:00"
  },
  {
    "date": "2024-05-23",
    "start_time": "10:00",
    "end_time": "17:00"
  },
  {
    "date": "2024-05-24",
    "start_time": "10:00",
    "end_time": "12:00"
  },
  {
    "date": "2024-05-24",
    "start_time": "12:30",
    "end_time": "16:00"
  },
  {
    "date": "2024-05-25",
    "start_time": "10:30",
    "end_time": "11:00"
  },
  {
    "date": "2024-05-25",
    "start_time": "11:30",
    "end_time": "12:00"
  }
]
```

```
},  
{  
  "date": "2024-05-25",  
  "start_time": "12:30",  
  "end_time": "17:00"  
},  
{  
  "date": "2024-05-26",  
  "start_time": "08:00",  
  "end_time": "19:00"  
}  
]
```

Running Tests

To run the test suite, execute:

```
docker compose run web rspec
```