# **Patient**

This project backend APIs for patient website facilitate patient registration and appointment scheduling. Patients can register themselves by providing necessary information through a registration form. Additionally, they can submit appointment requests through a form.

# **APIs**

This patient project contains following APIs:

# 1. Register patient

This API is used for register new patient.

### Method

```
POST
```

### **Request URL**

```
http://localhost:8080/api/v1/patient/register
```

# Body (raw json)

```
{
    "email": "patient@gmail.com",
    "password": "patient@01234"
}
```

### Response

```
{
    "message": "registration successful"
}
```

# 2. Login patient

This API is used for login patient. When the patient login, a secure JWT token will be generated. This JWT token will be used to make calls to other APIs by setting it as the Authorization in the header. Admin can also use this login endpoint for accessing this project.

### Method

```
POST
```

### **Request URL**

```
http://localhost:8080/api/v1/patient/login
```

# Body (raw json)

```
{
    "email": "patient@gmail.com",
    "password": "patient@01234"
}
```

### Response

In response it will generates JWT token

```
{
    "token":
    "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJwYXRpZW50X2lkIjoiNjUwNzYxZThmZmNiZ
    TkyMDJiMDFjZTI5IiwiZW1haWwiOiJhZG1pbkBnbWFpbC5jb2OiLCJyb2xlIjoiYWRtaW4iLCJl
    eHAiOjE2OTUOMjEzNDd9.jw0M8xDoum_uoEPzZ2vv1Y-9r7WDiyTqm1YkikEANoc"
}
```

# 3. Update patient

This API is used to update patient information. A patient can update their existing information using this API or add new information.

#### Method

```
PUT
```

# **Request URL**

```
http://localhost:8080/api/v1/patient
```

#### Header

Header is request for this request. We need to set Authorization and JWT token as a value including Bearer. The Bearer keyword in the Authorization header of an HTTP request indicates that the request is using the Bearer authentication scheme. This scheme is used to transmit an access token, such as a JSON Web Token (JWT), in the HTTP header to authorize the request.

```
Authorization: Bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJwYXRpZW50X2lkIjoiNjUwNzYxZThmZmNiZT kyMDJiMDFjZTI5IiwiZW1haWwiOiJhZG1pbkBnbWFpbC5jb20iLCJyb2xlIjoiYWRtaW4iLCJle HAiOjE2OTU0MjEzNDd9.jw0M8xDoum_uoEPzZ2vv1Y-9r7WDiyTqm1YkikEANoc
```

### Body (raw json)

In request body all the options are optional like patient don't want to update email and password, so just remove the these fields from request body. All fields are optional.

```
{
    "email": "patient@gmail.com",
    "password": "patient@01234",
    "full_name": "patient 1",
    "dob": "2000-01-01",
    "mobile_number": "+61432423523",
    "home_address": "home address"
}
```

### Response

In response, It will generate new token because patient information was updated.

# 4. Get patient by email

This API is used to retrieve a patient's profile information based on their email. The patient can view their own profile information, but they do not have access to view other patient's information. However, the

admin has the access to view all patient information using the patient's email.

#### Method

```
GET
```

### **Request URL**

We can pass email in param like that:

```
http://localhost:8080/api/v1/patient/<email>
```

#### Header

Header is required for this request. We need to set Authorization and JWT token as a value including Bearer.

```
Authorization: Bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJwYXRpZW50X2lkIjoiNjUwNzYxZThmZmNiZT kyMDJiMDFjZTI5IiwiZW1haWwiOiJhZG1pbkBnbWFpbC5jb20iLCJyb2xlIjoiYWRtaW4iLCJle HAiOjE2OTU0MjEzNDd9.jw0M8xDoum_uoEPzZ2vv1Y-9r7WDiyTqm1YkikEANoc
```

### Response

```
{
   "data": {
      "_id": "650761e8ffcbe9202b01ce29",
      "email": "patient@gmail.com",
      "role": "patient",
      "full_name": "patient 1",
      "dob": "2000-01-01",
      "mobile_number": "+61432423523",
      "home_address": "home address",
      "created_at": "2023-09-17T20:30:32.719Z",
      "updated_at": "2023-09-21T16:42:17.896Z"
   }
}
```

# 5. Delete patient

This API is used to delete a patient based on their email. A patient can only delete their own profile, meaning they cannot delete another patient's profile. However, the admin has the access to delete any

patient's profile using the patient's email.

### Method

```
DELETE
```

### **Request URL**

We can pass email in param like that:

```
http://localhost:8080/api/v1/patient/<email>
```

#### Header

Header is required for this request. We need to set Authorization and JWT token as a value including Bearer.

```
Authorization: Bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJwYXRpZW50X2lkIjoiNjUwNzYxZThmZmNiZT kyMDJiMDFjZTI5IiwiZW1haWwiOiJhZG1pbkBnbWFpbC5jb20iLCJyb2xlIjoiYWRtaW4iLCJle HAiOjE2OTUOMjEzNDd9.jw0M8xDoum_uoEPzZ2vv1Y-9r7WDiyTqm1YkikEANoc
```

### Response

```
{
    "message": "patient deleted successfully"
}
```

# 6. Get all patients

This API is used to retrieve all patients with pagination. Only the admin can access this API. The admin can use this API to retrieve all patient records along with their information. Patients do not have access to use this API. *Benefits of Backend Pagination* Improved Performance: By fetching and displaying data in smaller chunks or pages, pagination reduces the amount of data that needs to be loaded and processed at once. This results in faster loading times and a more responsive user interface.

### Method

```
GET
```

#### **Request URL**

```
http://localhost:8080/api/v1/patients
```

#### Header

Header is required for this request. We need to set Authorization and JWT token as a value including Bearer.

```
Authorization: Bearer
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJwYXRpZW50X2lkIjoiNjUwNzYxZThmZmNiZT
kyMDJiMDFjZTI5IiwiZW1haWwiOiJhZG1pbkBnbWFpbC5jb2OiLCJyb2xlIjoiYWRtaW4iLCJle
HAiOjE2OTUOMjEzNDd9.jw0M8xDoum_uoEPzZ2vv1Y-9r7WDiyTqm1YkikEANoc
```

### **Query params**

We can add query parameters for pagination so that we only fetch the amount of data we need from the backend like that: If we can get data for first page:

```
json: {"page": 1, "limit":10}
```

If we can get data for second page:

```
json: {"page": 2, "limit":10}
```

### Response

The metadata will accompany each response, containing necessary information such as the current page(page), the number of items displayed per page(limit), the starting(first\_page) and ending(last\_page) page, and the total record count(total\_records).

```
"updated_at": "2023-09-21T16:42:17.896Z"
        },
        {
            "_id": "65075406e5dedfb55efc84bd",
            "email": "user@gmail.com",
            "role": "patient",
            "full_name": "patient 2",
            "dob": "2001-01-01",
            "mobile_number": "+61433572467",
            "home_address": "home address",
            "created_at": "2023-09-17T19:31:18.318Z",
            "updated_at": "2023-09-17T19:33:26.036Z"
        }
    ],
    "metadata": {
        "page": 1,
        "limit": 10,
        "first_page": 1,
        "last_page": 1,
        "total_records": 2
    }
}
```

# 7. Upload file/documents

This API is used for uploading scanned documents for a form. The API will store the document in the database and send back the file details in the response. In the response, we will use the id to link the file when submitting the form.

### Method

```
POST
```

### **Request URL**

```
http://localhost:8080/api/v1/file/upload
```

# Header

Header is required for this request. We need to set Authorization and JWT token as a value including Bearer.

```
Authorization: Bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJwYXRpZW50X2lkIjoiNjUwNzYxZThmZmNiZT
```

 $kyMDJiMDFjZTI5IiwiZW1haWwi0iJhZG1pbkBnbWFpbC5jb20iLCJyb2xlIjoiYWRtaW4iLCJle \\ HAi0jE20TU0MjEzNDd9.jw0M8xDoum\_uoEPzZ2vv1Y-9r7WDiyTqm1YkikEANoc$ 

### Body (form-data)

In the form-data, we will have key-value pairs. For the key, we will set file, and for the value, we will select the file to upload.

```
file: /file/to/path
```

#### Response

We can use this id in uploading fields in submit form api.

```
{
    "file": {
        "id": "650d305aca772c5b38cbe965",
        "name": "file.pdf",
        "size": 147930
    },
    "msg": "file uploaded successfully"
}
```

# 8. View uploaded documents

This API is used to view an uploaded document using the provided id as a parameter.

### Method

```
GET
```

# **Request URL**

```
http://localhost:8080/api/v1/file/view/<file-id>
```

# Header

Header is required for this request. We need to set Authorization and JWT token as a value including Bearer.

Authorization: Bearer

eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJwYXRpZW50X2lkIjoiNjUwNzYxZThmZmNiZTkyMDJiMDFjZTI5IiwiZW1haWwiOiJhZG1pbkBnbWFpbC5jb2OiLCJyb2xlIjoiYWRtaW4iLCJleHAiOjE2OTUOMjEzNDd9.jwOM8xDoum\_uoEPzZ2vv1Y-9r7WDiyTqm1YkikEANoc

### Response

The response will display the uploaded document.

### 9. Form submit

This API is used to upload a patient's medical form with all the necessary details.

#### Method

```
POST
```

#### **Request URL**

```
http://localhost:8080/api/v1/patient/form
```

# Header

Header is required for this request. We need to set Authorization and JWT token as a value including Bearer.

```
Authorization: Bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJwYXRpZW50X2lkIjoiNjUwNzYxZThmZmNiZT kyMDJiMDFjZTI5IiwiZW1haWwiOiJhZG1pbkBnbWFpbC5jb2OiLCJyb2xlIjoiYWRtaW4iLCJle HAiOjE2OTUOMjEzNDd9.jw0M8xDoum_uoEPzZ2vv1Y-9r7WDiyTqm1YkikEANoc
```

### Body (raw json)

In request body includes all the fields of medicial form.

```
{
    "patient_detail": {
        "patient_full_name": "John Doe",
        "dob": "1980-01-01",
        "email": "johndoe@example.com",
        "mobile_number": "+1234567890",
        "home_address": "123 Main St"
```

```
},
    "emergency_contact_information": {
        "emergency_contact": "Jane Smith",
        "mobile": "+9876543210",
        "relationship_to_you": "Spouse"
    },
    "work_information": {
        "occupation": "Software Engineer"
    },
    "health_information": {
        "health_objective": "Maintain overall health",
        "health_practitioners": true,
        "practice_name": "Healthy Clinic",
        "medications_list": [
            {
                "medications": "Medication A",
                "doze": "1 pill daily"
            },
            {
                "medications": "Medication B",
                "doze": "2 pills twice daily"
            }
        ],
        "allergies_list": [
                "allergies": "Pollen",
                "hospitalisations_list": [
                    {
                         "name": "Hospital A",
                         "date": "2022-03-15"
                    },
                         "name": "Hospital B",
                         "date": "2019-07-20"
                ],
                "upload_relevant_scans": "6506d67e33abf3d5b7c8d007", //
When a user adds a document, we will first upload the file and then link
the uploaded document's ID in the respective field.
                "upload_reports": "6506d67e33abf3d5b7c8d012" // we all this
ID after the uploading the document
    },
    "consent": {
        "confirm_info": true,
        "signature": "6506d67e33abf3d5b7c8d002", // we all this ID after
the uploading the document
        "date": "2023-09-17"
}
```

### Response

```
{
    "form_id": "650d37c6ca772c5b38cbe969",
    "message": "form submitted successfully"
}
```

# 10. Get form by form id

This API is used to fetch a submitted form using the form id. With this API, a patient can only retrieve their own submitted forms, while they cannot access to forms submitted by other patients. However, the admin has the capability to access to fetch all the submitted forms of all patients.

### Method

```
GET
```

#### **Request URL**

```
http://localhost:8080/api/v1/patient/form/<form-id>
```

### Header

Header is required for this request. We need to set Authorization and JWT token as a value including Bearer.

```
Authorization: Bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJwYXRpZW50X2lkIjoiNjUwNzYxZThmZmNiZT kyMDJiMDFjZTI5IiwiZW1haWwiOiJhZG1pbkBnbWFpbC5jb2OiLCJyb2xlIjoiYWRtaW4iLCJle HAiOjE2OTUOMjEzNDd9.jwOM8xDoum_uoEPzZ2vv1Y-9r7WDiyTqm1YkikEANoc
```

### Response

```
{
   "data": {
      "patient_id": "650761e8ffcbe9202b01ce29",
      "patient_email": "patient@gmail.com",
      "patient_detail": {
            "patient_full_name": "John Doe",
            "dob": "1980-01-01",
            "email": "patient@gmail.com",
```

```
"mobile_number": "+1234567890",
            "home_address": "123 Main St"
        },
        "emergency_contact_information ": {
            "emergency_contact": "Jane Smith",
            "mobile": "+9876543210",
            "relationship_to_you": "Spouse"
        },
        "work_information": {
            "occupation": "Software Engineer"
        },
        "health_information": {
            "health_objective": "Maintain overall health",
            "health_practitioners": true,
            "practice_name": "Healthy Clinic",
            "medications_list": [
                {
                    "medications": "Medication A",
                    "doze": "1 pill daily"
                },
                    "medications": "Medication B",
                    "doze": "2 pills twice daily"
            ],
            "allergies_list": [
                {
                    "allergies": "Pollen",
                    "hospitalisations_list": [
                             "name": "Hospital A",
                             "date": "2022-03-15"
                        },
                        {
                             "name": "Hospital B",
                             "date": "2019-07-20"
                        }
                    ],
                    "upload_relevant_scans": "6506d67e33abf3d5b7c8d007",
                    "upload_reports": "6506d67e33abf3d5b7c8d012"
                }
            ]
        },
        "consent": {
            "confirm_info": true,
            "signature": "6506d67e33abf3d5b7c8d002",
            "date": "2023-09-17"
        },
        "created_at": "2023-09-22T06:44:22.897Z",
        "updated_at": "2023-09-22T06:44:22.897Z"
    }
}
```

# 11. Get patient all forms by email

This API is used to fetch all forms of a patient with pagination based on their email. Patients can only retrieve their own forms using this API. However, the admin has the access to retrieve all forms of any patient using their respective email. *Benefits of Backend Pagination* Improved Performance: By fetching and displaying data in smaller chunks or pages, pagination reduces the amount of data that needs to be loaded and processed at once. This results in faster loading times and a more responsive user interface.

### Method

```
GET
```

### **Request URL**

```
http://localhost:8080/api/v1/patient/forms/<email>
```

#### Header

Header is required for this request. We need to set Authorization and JWT token as a value including Bearer.

```
Authorization: Bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJwYXRpZW50X2lkIjoiNjUwNzYxZThmZmNiZT kyMDJiMDFjZTI5IiwiZW1haWwiOiJhZG1pbkBnbWFpbC5jb2OiLCJyb2xlIjoiYWRtaW4iLCJle HAiOjE2OTUOMjEzNDd9.jw0M8xDoum_uoEPzZ2vv1Y-9r7WDiyTqm1YkikEANoc
```

# **Query params**

We can add query parameters for pagination so that we only fetch the amount of data we need from the backend like that: If we can get data for first page:

```
json: {"page": 1, "limit":10}
```

If we can get data for second page:

```
json: {"page": 2, "limit":10}
```

### Response

The metadata will accompany each response, containing necessary information such as the current page(page), the number of items displayed per page(limit), the starting(first\_page) and ending(last\_page) page, and the total record count(total records).

```
{
    "data": [
        {
            "patient_id": "650761e8ffcbe9202b01ce29",
            "patient_email": "patient@gmail.com",
            "patient_detail": {
                "patient_full_name": "John Doe 2",
                "dob": "1980-01-01",
                "email": "patient@gmail.com",
                "mobile_number": "+1234567890",
                "home_address": "123 Main St"
            },
            "emergency_contact_information ": {
                "emergency_contact": "Jane Smith",
                "mobile": "+9876543210",
                "relationship_to_you": "Spouse"
            },
            "work_information": {
                "occupation": "Software Engineer"
            },
            "health_information": {
                "health_objective": "Maintain overall health",
                "health_practitioners": true,
                "practice_name": "Healthy Clinic",
                "medications_list": [
                         "medications": "Medication A",
                         "doze": "1 pill daily"
                    },
                    {
                         "medications": "Medication B",
                         "doze": "2 pills twice daily"
                    }
                "allergies_list": [
                    {
                         "allergies": "Pollen",
                         "hospitalisations_list": [
                             {
                                 "name": "Hospital A",
                                 "date": "2022-03-15"
                            },
                             {
                                 "name": "Hospital B",
                                 "date": "2019-07-20"
                             }
                         ],
                         "upload_relevant_scans":
```

```
"6506d67e33abf3d5b7c8d007",
                        "upload_reports": "6506d67e33abf3d5b7c8d007"
                    }
                ]
            },
            "consent": {
                "confirm_info": true,
                "signature": "John Doe",
                "date": "2023-09-17"
            },
            "created_at": "2023-09-22T07:34:29.462Z",
            "updated_at": "2023-09-22T07:34:29.462Z"
        },
            "patient_id": "650761e8ffcbe9202b01ce29",
            "patient_email": "patient@gmail.com",
            "patient_detail": {
                "patient_full_name": "John Doe",
                "dob": "1980-01-01",
                "email": "johndoe@example.com",
                "mobile_number": "+1234567890",
                "home_address": "123 Main St"
            },
            "emergency_contact_information ": {
                "emergency_contact": "Jane Smith",
                "mobile": "+9876543210",
                "relationship_to_you": "Spouse"
            },
            "work_information": {
                "occupation": "Software Engineer"
            },
            "health_information": {
                "health_objective": "Maintain overall health",
                "health_practitioners": true,
                "practice_name": "Healthy Clinic",
                "medications_list": [
                    {
                        "medications": "Medication A",
                        "doze": "1 pill daily"
                    },
                    {
                        "medications": "Medication B",
                        "doze": "2 pills twice daily"
                    }
                "allergies_list": [
                        "allergies": "Pollen",
                        "hospitalisations_list": [
                             {
                                 "name": "Hospital A",
                                 "date": "2022-03-15"
                            },
```

```
"name": "Hospital B",
                                 "date": "2019-07-20"
                             }
                         ],
                         "upload_relevant_scans":
"6506d67e33abf3d5b7c8d007",
                         "upload_reports": "6506d67e33abf3d5b7c8d012"
                     }
                 ]
            },
            "consent": {
                "confirm_info": true,
                 "signature": "6506d67e33abf3d5b7c8d023",
                "date": "2023-09-17"
            },
            "created_at": "2023-09-22T06:44:22.897Z",
            "updated_at": "2023-09-22T06:44:22.897Z"
        }
    ],
    "metadata": {
        "page": 1,
        "limit": 10,
        "first_page": 1,
        "last_page": 1,
        "total_records": 2
    }
}
```

# 12. Get all the forms

This API is used to fetch all forms submitted by all patients. Only the admin has access to this API and can retrieve all forms using pagination. The latest data will be displayed at the top.

# Method

```
GET
```

### **Request URL**

```
http://localhost:8080/api/v1/patient/forms
```

### Header

Header is required for this request. We need to set Authorization and JWT token as a value including Bearer.

Authorization: Bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJwYXRpZW50X2lkIjoiNjUwNzYxZThmZmNiZT kyMDJiMDFjZTI5IiwiZW1haWwiOiJhZG1pbkBnbWFpbC5jb2OiLCJyb2xlIjoiYWRtaW4iLCJle HAiOjE2OTUOMjEzNDd9.jw0M8xDoum\_uoEPzZ2vv1Y-9r7WDiyTqm1YkikEANoc

### Query params

We can add query parameters for pagination so that we only fetch the amount of data we need from the backend like that: If we can get data for first page:

```
json: {"page": 1, "limit":10}
```

If we can get data for second page:

```
json: {"page": 2, "limit":10}
```

#### Response

The metadata will accompany each response, containing necessary information such as the current page(page), the number of items displayed per page(limit), the starting(first\_page) and ending(last\_page) page, and the total record count(total\_records).

```
{
    "data": [
            "patient_id": "650761e8ffcbe9202b01ce29",
            "patient_email": "admin@gmail.com",
            "patient_detail": {
                "patient_full_name": "John Doe 2",
                "dob": "1980-01-01",
                "email": "johndoe@example.com",
                "mobile_number": "+1234567890",
                "home_address": "123 Main St"
            "emergency_contact_information ": {
                "emergency_contact": "Jane Smith",
                "mobile": "+9876543210",
                "relationship_to_you": "Spouse"
            },
            "work_information": {
                "occupation": "Software Engineer"
            },
            "health_information": {
                "health_objective": "Maintain overall health",
                "health_practitioners": true,
```

```
"practice_name": "Healthy Clinic",
                "medications_list": [
                    {
                        "medications": "Medication A",
                        "doze": "1 pill daily"
                    },
                        "medications": "Medication B",
                        "doze": "2 pills twice daily"
                ],
                "allergies_list": [
                        "allergies": "Pollen",
                        "hospitalisations_list": [
                                 "name": "Hospital A",
                                 "date": "2022-03-15"
                            },
                                 "name": "Hospital B",
                                 "date": "2019-07-20"
                            }
                        ],
                        "upload_relevant_scans":
"6506d67e33abf3d5b7c8d007",
                        "upload_reports": "6506d67e33abf3d5b7c8d007"
                    }
                ]
            },
            "consent": {
                "confirm_info": true,
                "signature": "John Doe",
                "date": "2023-09-17"
            },
            "created_at": "2023-09-22T07:34:29.462Z",
            "updated_at": "2023-09-22T07:34:29.462Z"
        },
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