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# 1 API Overview

This technical document will review API endpoints which can be exposed for the management of Patient Data.

# 2 API Specification

This is the formal specifications of the 3 APIs exposed for the use of Patient Data Management.

## 2.1 Create Patient

This endpoint creates a patient personal data record into the system. It returns a Boolean type of either False or True.

### 2.1.1 Request

**POST** */clinical/portal/patients*

**Request Body Schema**

|  |  |  |
| --- | --- | --- |
| Name | Data Type | Description |
| patientFirstName | String  Required  Min: 2 Chars  Max: 50 Chars | First Name of the patient |
| patientLastName | String  Required  Min: 2 Chars  Max: 50 Chars | Last Name of the patient |
| patientDOB | Date  Required  Must be in past or present | Date of Birth of patient |

### 2.1.2 Responses

**Status Code: 100 (Continue)**

|  |  |  |
| --- | --- | --- |
| Name | Data Type | Description |
| patientCreated | False, Boolean | Patient with given details exists, to continue with next course of action |

**Status Code: 201(Created)**

|  |  |  |
| --- | --- | --- |
| Name | Data Type | Description |
| patientCreated | True, Boolean | A patient record has been created |

**Status Code: 409 (Conflict)**

|  |  |  |
| --- | --- | --- |
| Name | Data Type | Description |
| patientCreated | False, Boolean | A conflict has occurred while trying to save the patient details |

**Status Code: 400(Bad Request)**

|  |  |  |
| --- | --- | --- |
| Name | Data Type | Description |
| PatientPersonalDataException | HttpStatus  List of **Detail** | A patient record has been created |

**HttpStatus**

|  |  |  |
| --- | --- | --- |
| Name | Data Type | Description |
| HttpStatus | Enum | Http status specifying the error |

**Detail**

|  |  |  |
| --- | --- | --- |
| Name | Data Type | Description |
| Location | String | The field that has caused the bad request |
| Message | String | The message defining the bad request |

### 2.1.3 Request Examples

**Sample JSON Request**

|  |
| --- |
| {  "patientFirstName": "Emma",  "patientLastName": "Richards",  "patientDOB": "2020-06-02"  } |

### 2.1.4 Response Examples

Sample JSON Response

**Status code: 200**

|  |
| --- |
| {  "patientCreated": **true**  } |

**Status code: [100, 409]**

|  |
| --- |
| {  "patientCreated": **false**  } |

**Status Code: 400**

|  |
| --- |
| {  "httpStatus": "BAD\_REQUEST",  "details": [  {  "location": "dateOfBirth",  "message": "must be a date in the past or in the present"  },  {  "location": "lastName",  "message": "cannot be null or empty"  },  {  "location": "lastName",  "message": "must be between 2 and 50 characters"  },  {  "location": "firstName",  "message": "should contain only alphabets and spaces"  }  ]  } |

## 2.2 Get Patients By Names

This endpoint allows the search of all patients whose first name and last name matches a given string. This endpoint returns a list of PatientPersonalDto.

### 2.2.1 Request

GET */clinical/portal/patients?firstName={firstName}&lastName={lastName}*

**Query Parameters**

|  |  |  |
| --- | --- | --- |
| Name | Data Type | Description |
| firstName | String  Min: 0 Chars  Max: 50 Chars  Optional | First Name of the patient.  If firstName is not given and only last name is given, search for patients is done using last name. |
| lastName | String  Min: 0 Chars  Max: 50 Chars  Optional | Last Name of the patient  If lastName is not given and only first name is given, search for patients is done using first name. |

### 2.2.2 Response

**Status Code : 200**

|  |  |  |
| --- | --- | --- |
| Name | Data Type | Description |
| patients | List of **PatientPersonalDataDto** |  |

**PatientPersonalDataDto**

|  |  |  |
| --- | --- | --- |
| Name | Data Type | Description |
| patientFirstName | String  Required  Min: 2 Chars  Max: 40 Chars | First Name of the patient |
| patientLastName | String  Required  Min: 2 Chars  Max: 40 Chars | Last Name of the patient |
| patientDOB | Date | Date of Birth of patient |

**Status code: 404**

|  |  |  |
| --- | --- | --- |
| Name | Data Type | Description |
| listResponseString | String | Return a String message of the error reason  Example: No Data Found |

**Status Code: 400(Bad Request)**

|  |  |  |
| --- | --- | --- |
| Name | Data Type | Description |
| PatientPersonalDataException | HttpStatus  List of **Detail** | A patient record has been created |

**HttpStatus**

|  |  |  |
| --- | --- | --- |
| Name | Data Type | Description |
| HttpStatus | Enum | Http status specifying the error |

**Detail**

|  |  |  |
| --- | --- | --- |
| Name | Data Type | Description |
| Location | String | The field that has caused the bad request |
| Message | String | The message defining the bad request |

### 2.2.3 Request Examples

Sample request made with query parameters:

/patients?firstName=Ja&lastName=Kind

/patients?firstName=JA&lastName=Kind

/patients?firstName=Ja&lastName=

/patients?firstName=&lastName=Kind

### 2.2.4 Response Examples

**Status Code:200**

|  |
| --- |
| {  "patients": [  {  "patientFirstName": "Emma",  "patientLastName": "Richards",  "patientDOB": "2020-06-02"  },  {  "patientFirstName": "Emma",  "patientLastName": "Richards",  "patientDOB": "2021-06-02"  },  {  "patientFirstName": "Emma",  "patientLastName": "Richards",  "patientDOB": "2019-06-02"  }  ]  } |

**Status Code:404**

|  |
| --- |
| {  "listResponseString": "No data found."  } |

**Status Code:400**

|  |
| --- |
| {  "httpStatus": "BAD\_REQUEST",  "details": [  {  "location": "firstName",  "message": "should contain only alphabets or spaces"  },  {  "location": "lastName",  "message": "must be 50 characters or less"  }  ]  } |

## 2.3 Get Patient Count by Birth Year

This endpoint is to search the number of patients who were born in specific given years.

This endpoint returns a list of YearBornCountDto that shows the number of patient in each given year in descending order.

### 2.3.1 Request

GET */clinical/portal/patients/yearcount?startYear={startYear}&endYear={endYear}*

**Query Parameters**

|  |  |  |
| --- | --- | --- |
| Name | Data Type | Description |
| startYear | String  Required  Only 4 digits allowed | From Year selection |
| endYear | String  Required  Only 4 digits allowed | To Year Selections |

### 2.3.2 Response

**Status Code: 200**

|  |  |  |
| --- | --- | --- |
| Name | Data Type | Description |
| patientCntByYrsResult | List of **YearBornCountDto** |  |

**YearBornCountDto**

|  |  |  |
| --- | --- | --- |
| Name | Data Type | Description |
| yearBorn | int | Year that patients are born in |
| numOfPatients | long | Total number of patients born in a given year |

**Status Code: 404**

|  |  |  |
| --- | --- | --- |
| Name | Data Type | Description |
| listResponseString | String | Return a String message of the error reason  Example: No Data Found |

### 2.3.3 Request Examples

Sample request:

/clinical/portal/patients/yearcount?startYear=1990&endYear=2022

### 2.3.4 Response Examples

**200**

|  |
| --- |
| {  "patientCntByYrsResult": [  {  "yearBorn": 2019,  "numOfPatients": 3  },  {  "yearBorn": 2020,  "numOfPatients": 2  },  {  "yearBorn": 2021,  "numOfPatients": 1  }  ]  } |

**404**

|  |
| --- |
| {  "listResponseString": "No data found."  } |

**400**

|  |
| --- |
| {  "httpStatus": "BAD\_REQUEST",  "details": [  {  "location": "endYear",  "message": "Only upto 4 numbers allowed."  },  {  "location": "startYear",  "message": "Only upto 4 numbers allowed."  }  ]  } |