



./music.yaml

Explore

Musicband Service Endpoints - OpenAPI

3.1.1

0.0.1 OAS 3.1

./music.yaml

OpenAPI specification for **Laboratory work №1** of **Service-oriented architecture** at **ITMO-University**.

[Roman Kobelev & Balin Artem - Website](#)

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Servers

https://localhost:5252 - Helios

default

GET **/music-bands** Get list of musicbands.

Get list of musicbands with possible filtering, sorting and pagination.

Parameters

Cancel

Name	Description
sort array<string> (query)	Fields to sort by. Prefix with '-' for descending order. If field is used multiple times (both with and without prefix), the last occurrence takes precedence. <div><div>name</div><div>-</div><div>genre</div><div>-</div><div>Add string item</div></div>
page integer(\$int32) (query)	Page number. If provided, size must also be provided. Otherwise, page is ignored. <div><div>1</div></div>
size integer(\$int32) (query)	Number of items per page. If page is provided, size must also be provided. Otherwise, size is ignored. <div><div>10</div></div>

Name	Description
filter array<string> (query)	Filter conditions in the format field(> = <= > < != == ^= \$= @=)value. "^=" is for prefix matching, "\$=" is for suffix matching, and "@=" is for substring matching. If a non-numeric field is used with a numeric operator or date format is invalid, an error is returned. <div><div>name==1%iLt`r+=Tumb2l!gff<%j'qbl}O+=)CC-</div><div>coordinates.x!=72610898966297662422297(-</div><div>Add string item</div></div>
<div>Execute</div>	

Responses

Code	Description	Links
200	<div>A list of musicbands.</div> <div>Media type<div>application/xml</div>Controls Accept header.</div> <div>Example Value Schema</div> <div><?xml version="1.0" encoding="UTF-8"?><musicBands><musicBandAllSchema><name>string</name><coordinates><x>-975</x><y>1</y></coordinates><numberOfParticipants>1</numberOfParticipants><albumsCount>1</albumsCount><description>string</description><genre>PSYCHEDELIC_CLOUD_RAP</genre><album><name>string</name><tracks>1</tracks></album><id>1</id><creationDate>2025-09-19</creationDate></musicBandAllSchema></musicBands></div>	No links
400	<div>Bad Request - Invalid Query Parameters.</div> <div>Media type<div>application/xml</div></div> <div>Example Value Schema</div> <div><?xml version="1.0" encoding="UTF-8"?><error><code>400</code><message>Bad Request</message></error></div>	No links

Code	Description	Links
500	<div>Internal Server Error</div> <div>Media type<div>application/xml</div></div> <div><div>Example Value</div><div>Schema</div></div> <div><?xml version="1.0" encoding="UTF-8"?> <error> <code>500</code> <message>Internal Server Error</message> </error></div>	No links
default	<div>Internal Server Error</div> <div>Media type<div>application/xml</div></div> <div><div>Example Value</div><div>Schema</div></div> <div><?xml version="1.0" encoding="UTF-8"?> <error> <code>500</code> <message>Internal Server Error</message> </error></div>	No links

POST

/music-bands

Create a new musicband.

⌵

Create a new musicband with the provided details.

Parameters

Cancel

No parameters

Request body required

application/xml

Musicband to add.

Edit Value

Schema

```
<?xml version="1.0" encoding="UTF-8"?>
<musicBand>
  <name>string</name>
  <coordinates>
    <x>-975</x>
    <y>1</y>
  </coordinates>
  <numberOfParticipants>1</numberOfParticipants>
  <albumsCount>1</albumsCount>
  <description>string</description>
  <genre>PSYCHEDELIC_CLOUD_RAP</genre>
  <album>
    <name>string</name>
    <tracks>1</tracks>
  </album>
</musicBand>
```



Execute

Responses

Code	Description	Links
201	<div>Musicband created successfully.</div> <div>Media type</div> <div>application/xml</div> <div>Controls Accept header.</div> <div>Example Value Schema</div> <div><?xml version="1.0" encoding="UTF-8"?> <musicBandAllSchema> <name>string</name> <coordinates> <x>-975</x> <y>1</y> </coordinates> <numberOfParticipants>1</numberOfParticipants> <albumsCount>1</albumsCount> <description>string</description> <genre>PSYCHEDELIC_CLOUD_RAP</genre> <album> <name>string</name> <tracks>1</tracks> </album> <id>1</id> <creationDate>2025-09-19</creationDate> </musicBandAllSchema></div>	No links
400	<div>Bad Request - Invalid input.</div> <div>Media type</div> <div>application/xml</div> <div>Example Value Schema</div> <div><?xml version="1.0" encoding="UTF-8"?> <error> <code>400</code></div>	No links

Code	Description	Links
	<pre><message>Bad Request</message> </error></pre>	
500	Internal Server Error	No links
	Media type application/xml	
	Example Value Schema	
	<pre><?xml version="1.0" encoding="UTF-8"?> <error> <code>500</code> <message>Internal Server Error</message> </error></pre>	
default	Internal Server Error	No links
	Media type application/xml	
	Example Value Schema	
	<pre><?xml version="1.0" encoding="UTF-8"?> <error> <code>500</code> <message>Internal Server Error</message> </error></pre>	

GET

/music-bands/{id}

Get a musicband by ID.

^

Retrieve a single musicband by its unique ID.

Parameters

Cancel

Name	Description
<div><div>id * required</div><div>integer(\$int32)</div><div>(path)</div></div>	<div>The unique identifier of the musicband.</div> <div>321</div>

Execute

Responses

Code	Description	Links
200	<div>A single musicband.</div> <div>Media type</div>	No links

Code	Description	Links
	<div>application/xml</div> <div>Controls Accept header.</div> <div>Example ValueSchema</div> <div><?xml version="1.0" encoding="UTF-8"?> <musicBandAllSchema> <name>string</name> <coordinates> <x>-975</x> <y>1</y> </coordinates> <numberOfParticipants>1</numberOfParticipants> <albumsCount>1</albumsCount> <description>string</description> <genre>PSYCHEDELIC_CLOUD_RAP</genre> <album> <name>string</name> <tracks>1</tracks> </album> <id>1</id> <creationDate>2025-09-19</creationDate> </musicBandAllSchema></div>	
400	<div>Bad Request - Invalid ID supplied.</div> <div>Media type</div> <div>application/xml</div> <div>Example ValueSchema</div> <div><?xml version="1.0" encoding="UTF-8"?> <error> <code>400</code> <message>Bad Request</message> </error></div>	No links
404	<div>Not Found - Musicband not found.</div> <div>Media type</div> <div>application/xml</div> <div>Example ValueSchema</div> <div><?xml version="1.0" encoding="UTF-8"?> <error> <code>404</code> <message>Not Found</message> </error></div>	No links
422	<div>Parameter 'id' must be a positive integer.</div> <div>Media type</div> <div>application/xml</div> <div>Example ValueSchema</div> <div><?xml version="1.0" encoding="UTF-8"?> <error> <code>422</code> <message>Unprocessable Entity</message> </error></div>	No links
500	<div>Internal Server Error</div> <div>Media type</div>	No links

Code	Description	Links
	<div>application/xml</div> <div>Example Value Schema</div> <pre><?xml version="1.0" encoding="UTF-8"?> <error> <code>500</code> <message>Internal Server Error</message> </error></pre>	
default	<div>Internal Server Error</div> <div>Media type</div> <div>application/xml</div> <div>Example Value Schema</div> <pre><?xml version="1.0" encoding="UTF-8"?> <error> <code>500</code> <message>Internal Server Error</message> </error></pre>	No links

PUT

/music-bands/{id}

Update an existing musicband (with all fields).

Update an existing musicband by its ID. All fields must be provided. Missing fields will be set to null.

Parameters

Cancel

Name	Description
id * required integer(\$int32) (path)	The unique identifier of the musicband to update.

321

Request body required

application/xml

Updated musicband details.

Edit Value Schema

```
<?xml version="1.0" encoding="UTF-8"?>
<musicBand>
  <name>string</name>
  <coordinates>
    <x>-975</x>
    <y>1</y>
  </coordinates>
  <numberOfParticipants>1</numberOfParticipants>
  <albumsCount>1</albumsCount>
  <description>string</description>
  <genre>PSYCHEDELIC_CLOUD_RAP</genre>
  <album>
    <name>string</name>
    <tracks>1</tracks>
  </album>
</musicBand>
```



Execute

Responses

Code	Description	Links
200	<div>Musicband updated successfully.</div> <div>Media type<div>application/xml</div></div> <div>Controls Accept header.</div> <div><div>Example Value</div><div>Schema</div></div> <div><?xml version="1.0" encoding="UTF-8"?> <musicBandAllSchema> <name>string</name> <coordinates> <x>-975</x> <y>1</y> </coordinates> <numberOfParticipants>1</numberOfParticipants> <albumsCount>1</albumsCount> <description>string</description> <genre>PSYCHEDELIC_CLOUD_RAP</genre> <album> <name>string</name> <tracks>1</tracks> </album> <id>1</id> <creationDate>2025-09-19</creationDate> </musicBandAllSchema></div>	No links
400	<div>Bad Request - Invalid input.</div> <div>Media type<div>application/xml</div></div> <div><div>Example Value</div><div>Schema</div></div> <div><?xml version="1.0" encoding="UTF-8"?> <error> <code>400</code></div>	No links

Code	Description	Links
	<pre><message>Bad Request</message> </error></pre>	
404	Not Found - Musicband not found.	No links
	Media type <div>application/xml</div>	
	Example Value Schema	
	<pre><?xml version="1.0" encoding="UTF-8"?> <error> <code>404</code> <message>Not Found</message> </error></pre>	
422	Parameter 'id' must be a positive integer.	No links
	Media type <div>application/xml</div>	
	Example Value Schema	
	<pre><?xml version="1.0" encoding="UTF-8"?> <error> <code>422</code> <message>Unprocessable Entity</message> </error></pre>	
500	Internal Server Error	No links
	Media type <div>application/xml</div>	
	Example Value Schema	
	<pre><?xml version="1.0" encoding="UTF-8"?> <error> <code>500</code> <message>Internal Server Error</message> </error></pre>	
default	Internal Server Error	No links
	Media type <div>application/xml</div>	
	Example Value Schema	
	<pre><?xml version="1.0" encoding="UTF-8"?> <error> <code>500</code> <message>Internal Server Error</message> </error></pre>	

DELETE

/music-bands/{id}

Delete a musicband by ID.

⌵

Delete a single musicband by its unique ID.

Parameters

Name	Description
id * required	The unique identifier of the musicband to delete.
integer(\$int32) (path)	<div>231</div>

Execute

Responses

Code	Description	Links
204	Musicband deleted successfully. No content returned.	No links
400	Bad Request - Invalid ID supplied. <div>Media type<div>application/xml</div></div> <div>Example Value Schema</div> <div><?xml version="1.0" encoding="UTF-8"?> <error> <code>400</code> <message>Bad Request</message> </error></div>	No links
404	Not Found - Musicband not found. <div>Media type<div>application/xml</div></div> <div>Example Value Schema</div> <div><?xml version="1.0" encoding="UTF-8"?> <error> <code>404</code> <message>Not Found</message> </error></div>	No links
422	Parameter 'id' must be a positive integer. <div>Media type<div>application/xml</div></div> <div>Example Value Schema</div> <div><?xml version="1.0" encoding="UTF-8"?> <error> <code>422</code> <message>Unprocessable Entity</message> </error></div>	No links
500	Internal Server Error	No links

Code	Description	Links
	<div>Media type</div> <div>application/xml</div> <div>Example Value Schema</div> <div><?xml version="1.0" encoding="UTF-8"?> <error> <code>500</code> <message>Internal Server Error</message> </error></div>	
default	<div>Internal Server Error</div> <div>Media type</div> <div>application/xml</div> <div>Controls Accept header.</div> <div>Example Value Schema</div> <div><?xml version="1.0" encoding="UTF-8"?> <error> <code>500</code> <message>Internal Server Error</message> </error></div>	No links

PATCH

/music-bands/{id}

Partially update a musicband by ID.

Update one or more fields of an existing musicband by its ID. Only the provided fields will be updated; other fields will remain unchanged.

Parameters

Cancel

Name	Description
<div><div>id * required</div><div>integer(\$int32)</div><div>(path)</div></div>	<div>The unique identifier of the musicband to update.</div> <div>123</div>

Request body required

application/xml

Fields to update in the musicband.

Edit Value Schema

```
<?xml version="1.0" encoding="UTF-8"?>
<musicBand>
  <name>string</name>
  <coordinates>
    <x>-975</x>
    <y>1</y>
  </coordinates>
  <numberOfParticipants>1</numberOfParticipants>
  <albumsCount>1</albumsCount>
  <description>string</description>
  <genre>PSYCHEDELIC_CLOUD_RAP</genre>
  <album>
    <name>string</name>
    <tracks>1</tracks>
  </album>
</musicBand>
```



Execute

Responses

Code	Description	Links
200	<div>Musicband updated successfully.</div> <div>Media type<div>application/xml</div></div> <div>Controls Accept header.</div> <div>Example ValueSchema</div> <div><?xml version="1.0" encoding="UTF-8"?> <musicBandAllSchema> <name>string</name> <coordinates> <x>-975</x> <y>1</y> </coordinates> <numberOfParticipants>1</numberOfParticipants> <albumsCount>1</albumsCount> <description>string</description> <genre>PSYCHEDELIC_CLOUD_RAP</genre> <album> <name>string</name> <tracks>1</tracks> </album> <id>1</id> <creationDate>2025-09-19</creationDate> </musicBandAllSchema></div>	No links
400	<div>Bad Request - Invalid input.</div> <div>Media type<div>application/xml</div></div> <div>Example ValueSchema</div> <div><?xml version="1.0" encoding="UTF-8"?> <error> <code>400</code></div>	No links

Code	Description	Links
	<pre><message>Bad Request</message> </error></pre>	
404	Not Found - Musicband not found. Media type <div>application/xml</div> Example Value Schema <pre><?xml version="1.0" encoding="UTF-8"?> <error> <code>404</code> <message>Not Found</message> </error></pre>	No links
422	Parameter 'id' must be a positive integer. Media type <div>application/xml</div> Example Value Schema <pre><?xml version="1.0" encoding="UTF-8"?> <error> <code>422</code> <message>Unprocessable Entity</message> </error></pre>	No links
500	Internal Server Error Media type <div>application/xml</div> Example Value Schema <pre><?xml version="1.0" encoding="UTF-8"?> <error> <code>500</code> <message>Internal Server Error</message> </error></pre>	No links
default	Internal Server Error Media type <div>application/xml</div> Example Value Schema <pre><?xml version="1.0" encoding="UTF-8"?> <error> <code>500</code> <message>Internal Server Error</message> </error></pre>	No links

DELETE **/music-bands/all-with-description** Delete all musicbands with a specific description. ^

Delete all musicbands whose description matches the provided value. If nothing is deleted, it means success too.

Parameters

Name	Description
<div><div>description</div><div>* required</div></div> <div>string</div> <div>(query)</div>	<div>The description to filter musicbands for deletion.</div> <div>213</div>

Execute

Responses

Code	Description	Links
204	Musicbands deleted successfully. No content returned.	No links
400	<div>Bad Request - Missing or invalid description parameter.</div> <div>Media type</div> <div>application/xml</div> <div>Example Value Schema</div> <div><?xml version="1.0" encoding="UTF-8"?> <error> <code>400</code> <message>Bad Request</message> </error></div>	No links
500	<div>Internal Server Error</div> <div>Media type</div> <div>application/xml</div> <div>Example Value Schema</div> <div><?xml version="1.0" encoding="UTF-8"?> <error> <code>500</code> <message>Internal Server Error</message> </error></div>	No links
default	<div>Internal Server Error</div> <div>Media type</div> <div>application/xml</div> <div>Controls Accept header.</div> <div>Example Value Schema</div> <div><?xml version="1.0" encoding="UTF-8"?> <error> <code>500</code> <message>Internal Server Error</message> </error></div>	No links

Delete one random musicband whose genre matches the provided value. Input is case-sencetive. If nothing is deleted, it means success too.

Parameters

Cancel

Name	Description
genre * required string (query)	The genre to filter musicbands for deletion. <div>PSYCHEDELIC_CLOUD_RAP</div>

Execute

Responses

Code	Description	Links
204	Musicband deleted successfully. No content returned.	No links
400	Bad Request - Missing or invalid genre parameter. <div>Media type<div>application/xml</div><div>Example Value Schema</div><div><?xml version="1.0" encoding="UTF-8"?>
<error>
<code>400</code>
<message>Bad Request</message>
</error></div></div>	No links
500	Internal Server Error <div>Media type<div>application/xml</div><div>Example Value Schema</div><div><?xml version="1.0" encoding="UTF-8"?>
<error>
<code>500</code>
<message>Internal Server Error</message>
</error></div></div>	No links
default	Internal Server Error <div>Media type<div>application/xml</div><div>Controls Accept header.</div></div>	No links

Code	Description	Links
	<div>Example Value</div> <div>Schema</div> <pre><?xml version="1.0" encoding="UTF-8"?> <error> <code>500</code> <message>Internal Server Error</message> </error></pre>	

GET	/music-bands/count-best-album	Count musicbands with best album greater than provided.	⌵
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Get the count of musicbands whose best album has more tracks than the specified number. If equals, uses alphabetical comparison of the names.

Parameters

Cancel

Name	Description
<div>albumName * required</div> <div>string</div> <div>(query)</div>	The name of the album to compare against.
<div>albumTracks * required</div> <div>integer(\$int64)</div> <div>(query)</div>	The number of tracks in the album to compare against.

Execute

Responses

Code	Description	Links
200	<div>Count of musicbands with best album tracks greater than the specified number.</div> <div>Media type</div> <div>application/xml</div> <div>Controls Accept header.</div> <div>Example Value</div> <div>Schema</div> <pre><?xml version="1.0" encoding="UTF-8"?> <count>5</count></pre>	No links
400	<div>Bad Request - Missing or invalid tracks parameter.</div> <div>Media type</div> <div>application/xml</div>	No links

Code	Description	Links
	<div>Example ValueSchema</div> <div><?xml version="1.0" encoding="UTF-8"?><error><code>400</code><message>Bad Request</message></error></div>	
500	<div>Internal Server Error</div> <div>Media type<div>application/xml</div></div> <div>Example ValueSchema</div> <div><?xml version="1.0" encoding="UTF-8"?><error><code>500</code><message>Internal Server Error</message></error></div>	No links
default	<div>Internal Server Error</div> <div>Media type<div>application/xml</div></div> <div>Example ValueSchema</div> <div><?xml version="1.0" encoding="UTF-8"?><error><code>500</code><message>Internal Server Error</message></error></div>	No links

Schemas

Album ^ Collapse all object

name* string ≥ 1 characters

tracks* integer ≥ 1 int64

XML ^ Collapse all object

name=album

Coordinates ^ Collapse all object

x* number > -975 float

y* integer ≥ 1 int64

MusicBand ^ Collapse all object

name* string ≥ 1 characters

coordinates* ^ Collapse all object

x* number > -975 float

```
    y* integer ≥ 1 int64

numberOfParticipants* integer ≥ 1 int32

albumsCount* integer ≥ 1 int32

description* ^ Collapse all string ≥ 0 characters

genre* ^ Collapse all string

    Enum ^ Collapse all array

        #0="PSYCHEDELIC_CLOUD_RAP"

        #1="SOUL"

        #2="POP"

bestAlbum ^ Collapse all object

    name* string ≥ 1 characters

    tracks* integer ≥ 1 int64

    XML ^ Collapse all object

        name=album

XML ^ Collapse all object

    name=musicBand
```

MusicBandAllSchema ^ Collapse all object

```
name* string ≥ 1 characters

coordinates* ^ Collapse all object

    x* number > -975 float

    y* integer ≥ 1 int64

numberOfParticipants* integer ≥ 1 int32

albumsCount* integer ≥ 1 int32

description* ^ Collapse all string ≥ 0 characters

genre* ^ Collapse all string

    Enum ^ Collapse all array

        #0="PSYCHEDELIC_CLOUD_RAP"

        #1="SOUL"

        #2="POP"

bestAlbum ^ Collapse all object

    name* string ≥ 1 characters

    tracks* integer ≥ 1 int64

    XML ^ Collapse all object

        name=album

id* integer ≥ 1 int32

creationDate string date

XML ^ Collapse all object

    name=musicBandAllSchema
```

MusicBandPatch ^ Collapse all object

```
name string ≥ 1 characters
```

coordinates ^ Collapse all **object**

x* **number** > -975 **float**

y* **integer** ≥ 1 **int64**

numberOfParticipants **integer** ≥ 1 **int32**

albumsCount **integer** ≥ 1 **int32**

description ^ Collapse all **string** ≥ 0 **characters**

genre ^ Collapse all **string**

Enum ^ Collapse all **array**

#0="PSYCHEDELIC_CLOUD_RAP"

#1="SOUL"

#2="POP"

bestAlbum ^ Collapse all **object**

name* **string** ≥ 1 **characters**

tracks* **integer** ≥ 1 **int64**

XML ^ Collapse all **object**

name=album

XML ^ Collapse all **object**

name=musicBand

Error ^ Collapse all **object**

code* ^ Collapse all **integer** **int32**

Example=500

message* ^ Collapse all **string**

Example="Internal Server Error"

XML ^ Collapse all **object**

name=error

InternalServerError ^ Collapse all **object**

code* ^ Collapse all **integer** **int32**

Example=500

message* ^ Collapse all **string**

Example="Internal Server Error"

XML ^ Collapse all **object**

name=error

NotFoundError ^ Collapse all **object**

code* ^ Collapse all **integer** **int32**

Example=404

message* ^ Collapse all **string**

Example="Not Found"

XML ^ Collapse all **object**

name=error

BadRequestError ^ Collapse all object

code* ^ Collapse all integer int32

Example=400

message* ^ Collapse all string

Example="Bad Request"

XML ^ Collapse all object

name=error

UnprocessableEntityError ^ Collapse all object

code* ^ Collapse all integer int32

Example=422

message* ^ Collapse all string

Example="Unprocessable Entity"

XML ^ Collapse all object

name=error

FilterCondition string matches `^((name|creationDate|description|genre|bestAlbum\.name)(>=|<|>|<=|!=|==|^=|$|=|@=|.+)|(coordinates\.x(>=|<=|>|<|!=|==)-?\d+(\.\d+)?)|(id|coordinates\.y|numberOfParticipants|albumsCount|bestAlbum\.tracks)(>=|<=|>|<|!=|==)-?\d+)$`

SortValues string matches `^(id|-id|name|-name|coordinates\.x|-coordinates\.x|coordinates\.y|-coordinates\.y|creationDate|-creationDate|numberOfParticipants|-numberOfParticipants|albumsCount|-albumsCount|description|-description|genre|-genre|bestAlbum\.name|-bestAlbum\.name|bestAlbum\.tracks|-bestAlbum\.tracks)$`

PatchOption > Expand all string matches

`^((name|creationDate|description|genre|bestAlbum\.name)=.+)|(coordinates\.x=-?\d+(\.\d+)?)|(id|coordinates\.y|numberOfParticipants|albumsCount|bestAlbum\.tracks)=-?\d+)$`

MusicBandId integer ≥ 1 int32

MusicBandDescription string ≥ 0 characters

MusicBandGenre ^ Collapse all string

Enum ^ Collapse all array

#0="PSYCHEDELIC_CLOUD_RAP"

#1="SOUL"

#2="POP"

