

API Documentation

User

1. Create User

REQUEST

- **Uri:** POST /users
- **Body Parameters**
 - username - name of the user pretending to sign in (required)
 - password - password given by user (required)
- **Body:**

```
{ "username" : "aluno", "password" : "isel" }
```

RESPONSE

SUCCESS

- **Status:** 201 CREATED
- **Headers:** Content-type: application/json
- **Body:**

```
{ "id" : 1 }
```

ERROR

- **Status:** 400 BAD REQUEST
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "MissingKotlinParameterException",
  "title": "Bad parameter",
  "detail": "Instantiation of [simple type, class pt.isel.daw.controller.representation.input.UserInputModel] value failed for JSON property username or password due to missing (therefore NULL) value for creator parameter username which is a non-nullable type",
  "status": 400
}
```

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "User or password cannot be blank!",
}
```

```
{
  "status": 500
}
```

- **Status:** 409 CONFLICT
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "UniqueAttributeException",
  "title": "Unique attribute exception.",
  "detail": "User aluno already exists.",
  "status": 409
}
```

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "Error accessing database:
PreparedStatementCallback; bad SQL grammar [INSERT INTO apiuser
(username, password) VALUES (?, ?) RETURNING id]; nested
exception is org.postgresql.util.PSQLException: ERROR: relation
\"apiuser\" does not exist\n  Position: 13",
  "status": 500
}
```

2. Login User

REQUEST

- **Uri:** POST /users/login
- **Body Parameters**
 - username - name of the user pretending to login (required)
 - password - password given by user (required)
- **Body:**

```
{ "username" : "aluno", "password" : "isel" }
```

RESPONSE

SUCCESS

- **Status:** 200 OK
- **Headers:** Content-type: application/json
- **Body:** { "id" : 1 }

ERROR

- **Status:** 400 BAD REQUEST
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "MissingKotlinParameterException",
  "title": "Bad parameter",
  "detail": "Instantiation of [simple type, class
pt.isel.daw.controller.representation.input.UserInputModel]
value failed for JSON property username or password due to
missing (therefore NULL) value for creator parameter username
which is a non-nullable type",
  "status": 400
}
```

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "User or password cannot be blank!",
  "status": 500
}
```

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "Password is incorrect!",
  "status": 500
}
```

- **Status:** 404 NOT_FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "User not found.",
  "status": 404
}
```

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "Error accessing database: ...",
  "status": 500
}
```

3. Obtain All Users

REQUEST

- **Uri:** GET /users

RESPONSE

SUCCESS

- **Status:** 200 OK
- **Headers:** Content-type: application/json
- **Body:**

```
{ "usernames": ["aluno1", "aluno2"] }
```

ERROR

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "Error accessing database: ...",
  "status": 500
}
```

4. Remove User

REQUEST

- **Uri:** DELETE /users/{username}
- **Path Parameters**
 - username - name of the user that will be removed (required)

RESPONSE

SUCCESS

- **Status:** 204 NO-CONTENT

ERROR

- **Status:** 400 BAD REQUEST

- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "MissingKotlinParameterException",
  "title": "Bad parameter",
  "detail": "Instantiation of [simple type, class pt.isel.daw.controller.representation.input.UserInputModel] value failed for JSON property username due to missing (therefore NULL) value for creator parameter username which is a non-nullable type",
  "status": 400
}
```

- **Status:** 404 NOT_FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "User not found.",
  "status": 404
}
```

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "Error accessing database: ...",
  "status": 500
}
```

PROJECT

1. Create Project

REQUEST

- **Uri:** POST /projects
- **Headers:** Authorization: Basic Auth
- **Body Parameters:**
 - name - name of the project being created (required)
 - description - short description of the project
 - issueStates - array of possible states to this project
 - issueLabels - array of possible labels to this project
- **Body:**

```
{
  "name" : "Grupo 3",
  "description" : "Projecto do grupo 3",
  "issueStates" : ["open", "closed", "archived"],
  "issueLabels" : ["new_functionality", "defect"]
}
```

RESPONSE

SUCCESS

- **Status:** 201 CREATED
- **Headers:** Content-type: text/plain
- **Body:** Project Grupo 3 created successfully.

ERROR

- **Status:** 400 BAD REQUEST
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "MissingKotlinParameterException",
  "title": "Bad parameter",
  "detail": "Instantiation of [simple type, class pt.isel.daw.controller.representation.input.ProjectInputModel] value failed for JSON property name due to missing (therefore NULL) value for creator parameter name which is a non-nullable type",
  "status": 400
}
```

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "User not found.",
  "status": 404
}
```

- **Status:** 409 CONFLICT
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "UniqueAttributeException",
  "title": "Unique attribute exception.",
  "detail": "Project Grupo 3 already exists."
  "status": 409
}
```

- **Status:** 409 CONFLICT
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "UniqueAttributeException",
  "title": "Unique attribute exception.",
  "detail": "IssueState '${state.name}' already exists on
Project '${pname}'."
  "status": 409
}
```

- **Status:** 409 CONFLICT
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "UniqueAttributeException",
  "title": "Unique attribute exception.",
  "detail": "IssueLabel '${issueLabel.name}' already exists on
Project '${pname}'."
  "status": 409
}
```

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "Error accessing database: ...",
  "status": 500
}
```

2. Obtain All Projects

REQUEST

- **Uri:** GET /projects
- **Headers:**
 - Accept: application/vnd.siren+json (optional)

RESPONSE

SUCCESS

- **Status:** 200 OK
- **Headers:**
 - Content-type: application/json, application/vnd.siren+json
- **Body (application/json):**

```
{
  "name": "Grupo 3",
  "description": "Projecto do grupo 3",
  "issueStates": [
    "open",
    "closed",
    "archived"
  ],
  "issueLabels": [
    "new_functionality",
    "defect"
  ]
}
```

- **Body (application/vnd.siren+json):**

```
{
  "properties": {
    "count": 1
  },
  "links": [
    {
      "rel": [
        "self",
        "collection",
        "/rels/projects"
      ],
      "href": "/projects",
      "title": "All Projects"
    }
  ],
  "actions": [
    {
      "name": "/actions/post/project",
      "href": "/projects",
      "title": "Create project",
      "class": [
        "/classes/projects"
      ],
      "method": "POST",
      "type": "application/json",
      "fields": [
```



```

    {
      "name": "name",
      "type": "text"
    },
    {
      "name": "description",
      "type": "text"
    },
    {
      "name": "issueState",
      "type": "IssueState[]"
    },
    {
      "name": "issueLabel",
      "type": "IssueLabel[]"
    }
  ]
},
],
"entities": [
{
  "class": [
    "/classes/project"
  ],
  "properties": {
    "name": "Grupo 3",
    "description": "Projecto do grupo 3",
    "issueStates": [
      "open",
      "closed",
      "archived"
    ],
    "issueLabels": [
      "new_functionality",
      "defect"
    ]
  },
  "links": [
    {
      "rel": [
        "self"
      ],
      "href": "/projects/Grupo%203",
      "title": "Project Grupo 3"
    }
  ]
}
],
"clazz": [
  "/classes/projects"
]
}

```

ERROR

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "Error accessing database: ...",
  "status": 500
}
```

3. Obtain Project Details

REQUEST

- **Uri:** GET /projects/{name}
- **Headers:**
 - Accept: application/vnd.siren+json (optional)
- **Path Parameters:**
 - name - obtain the details of the given project name

RESPONSE

SUCCESS

- **Status:** 200 OK
- **Headers:**
 - Content-type: application/json, application/vnd.siren+json
- **Body (application/json):**

```
{
  "name": "Grupo 3",
  "description": "Projecto do grupo 3",
  "issueStates": [
    "open",
    "closed",
    "archived"
  ],
  "issueLabels": [
    "new_functionality",
    "defect"
  ]
}
```

- **Body (application/vnd.siren+json):**

```
{
  "properties": {
    "name": "Grupo 3",
    "description": "Projecto do grupo 3",
    "issueStates": [
      "open",
      "closed",
      "archived"
    ],
    "issueLabels": [
      "new_functionality",
      "defect"
    ]
  }
}
```

```
},
  "links": [
    {
      "rel": [
        "self",
        "/rels/project"
      ],
      "href": "/projects/Grupo%203",
      "title": "Project Grupo 3"
    },
    {
      "rel": [
        "/rels/projects",
        "parent",
        "collection"
      ],
      "href": "/projects",
      "title": "All Projects"
    },
    {
      "rel": [
        "/rels/project/issues",
        "collection"
      ],
      "href": "/projects/Grupo%203/issues",
      "title": "Project Grupo 3's Issues"
    },
    {
      "rel": [
        "/rels/project/contributors",
        "collection"
      ],
      "href": "/projects/Grupo%203/contributors",
      "title": "Project Grupo 3's Contributors"
    }
  ],
  "actions": [
    {
      "name": "/actions/put/project",
      "href": "/projects/Grupo%203",
      "title": "Update Project Grupo 3",
      "class": [
        "/classes/project"
      ],
      "method": "PUT",
      "type": "application/json",
      "fields": [
        {
          "name": "name",
          "type": "text"
        },
        {
          "name": "description",
          "type": "text"
        },
        {
          "name": "issueState",
          "type": "IssueState"
        },
        {
          "name": "issueLabel",
```

```

        "type": "IssueLabel"
    }
    ],
    },
    {
        "name": "/actions/delete/project",
        "href": "/projects/Grupo%203",
        "title": "Delete Project Grupo 3",
        "class": [
            "/classes/project"
        ],
        "method": "DELETE",
        "type": "application/json"
    },
    {
        "name": "/actions/patch/project/name",
        "href": "/projects/Grupo%203/name",
        "title": "Patch Project Grupo 3's Name",
        "class": [
            "/classes/project"
        ],
        "method": "PATCH",
        "type": "application/json",
        "fields": [
            {
                "name": "newName",
                "type": "text"
            }
        ]
    },
    {
        "name": "/actions/patch/project/description",
        "href": "/projects/Grupo%203/description",
        "title": "Patch project Grupo 3's Description",
        "class": [
            "/classes/project"
        ],
        "method": "PATCH",
        "type": "application/json",
        "fields": [
            {
                "name": "description",
                "type": "text"
            }
        ]
    }
    ],
    "entities": [],
    "clazz": [
        "/classes/project"
    ]
}

```

ERROR

- **Status:** 404 NOT_FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Project COVID-19 not found.",
  "status": 404
}
```

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "Error accessing database: ...",
  "status": 500
}
```

4. Update Project Details

REQUEST

- **Uri:** PUT /projects/{name}
- **Headers:** Authorization: Basic Auth
- **Path Parameters:**
 - name - name of the project being updated
- **Body Parameters:**
 - name – new name of the project (required)
 - description - new description of the project
 - issueStates – new array of possible states to this project
 - issueLabels – new array of possible labels to this project
- **Body:**

```
{
  "name" : "Grupo 3 Edited",
  "description" : "Nova descrição do Projecto do grupo 3",
  "issueStates" : ["open", "closed", "archived"],
  "issueLabels" : ["exploration"]
}
```

RESPONSE

SUCCESS

- **Status:** 200 OK
- **Headers:** Content-type: text/plain
- **Body:** Project Grupo 3 Edited updated successfully.

ERROR

- **Status:** 400 BAD REQUEST
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "MissingKotlinParameterException",
  "title": "Bad parameter",
  "detail": "Instantiation of [simple type, class
pt.isel.daw.controller.representation.input.ProjectInputModel]
value failed for JSON property name due to missing (therefore
NULL) value for creator parameter name which is a non-nullable
type",
  "status": 400
}
```

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "User not found.",
  "status": 404
}
```

- **Status:** 403 FORBIDDEN
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "AuthorizationException",
  "title": "Authorization exception.",
  "detail": "User is not a contributor and doesn't have
permission to change project Grupo 3.",
  "status": 403
}
```

- **Status:** 404 NOT_FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Project Grupo 3 not found.",
  "status": 404
}
```

- **Status:** 409 CONFLICT
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "UniqueAttributeException",
  "title": "Unique attribute exception.",
  "detail": "Project COVID 19 already exists.",
  "status": 409
}
```

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "Error accessing database: ...",
  "status": 500
}
```

5. Patch Project Name

REQUEST

- **Uri:** PATCH /projects/{name}/name
- **Headers:** Authorization: Basic Auth
- **Path Parameters:**
 - name - name of the project being patched
- **Body Parameters:**
 - name – new name of the current project (required)
- **Body:**

```
{
  "name" : "new Grupo 3"
}
```

RESPONSE

SUCCESS

- **Status:** 200 OK
- **Headers:** Content-type: text/plain
- **Body:** Project Grupo 3's name updated successfully to 'new Grupo 3'.

ERROR

- **Status:** 400 BAD REQUEST
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "MissingKotlinParameterException",
  "title": "Bad parameter",
}
```

```
    "detail": "Instantiation of [simple type, class  
pt.isel.daw.controller.representation.input.ProjectInputModel$Pr  
ojectNameInputModel] value failed for JSON property name due to  
missing (therefore NULL) value for creator parameter name which  
is a non-nullable type",  
    "status": 400  
}
```

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{  
  "type": "EntityNotFoundException",  
  "title": "Entity not found exception.",  
  "detail": "User not found.",  
  "status": 404  
}
```

- **Status:** 404 NOT_FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{  
  "type": "EntityNotFoundException",  
  "title": "Entity not found exception.",  
  "detail": "Project Grupo 3 not found.",  
  "status": 404  
}
```

- **Status:** 403 FORBIDDEN
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{  
  "type": "AuthorizationException",  
  "title": "Authorization exception.",  
  "detail": "User is not a contributor and doesn't have  
permission to change project Grupo 3.",  
  "status": 403  
}
```

- **Status:** 409 CONFLICT
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{  
  "type": "UniqueAttributeException",  
  "title": "Unique attribute exception.",  
  "detail": "Project new Grupo 3 already exists.",  
  "status": 409  
}
```


- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "Error accessing database: ...",
  "status": 500
}
```

6. Patch Project Description

REQUEST

- **Uri:** PATCH /projects/{name}/description
- **Headers:** Authorization: Basic Auth
- **Path Parameters:**
 - name - name of the project being patched
- **Body Parameters:**
 - description – new description of the current project (required)
- **Body:**

```
{
  "description" : "nova descrição do grupo 3"
}
```

RESPONSE

SUCCESS

- **Status:** 200 OK
- **Headers:** Content-type: text/plain
- **Body:** Project Grupo 3's description updated successfully.

ERROR

- **Status:** 400 BAD REQUEST
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "MissingKotlinParameterException",
  "title": "Bad parameter",
  "detail": "Instantiation of [simple type, class pt.isel.daw.controller.representation.input.ProjectInputModel$ProjectNameInputModel] value failed for JSON property name due to missing (therefore NULL) value for creator parameter name which is a non-nullable type",
  "status": 400
}
```

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "User not found.",
  "status": 404
}
```

- **Status:** 404 NOT_FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Project Grupo 3 not found.",
  "status": 404
}
```

- **Status:** 403 FORBIDDEN
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "AuthorizationException",
  "title": "Authorization exception.",
  "detail": "User is not a contributor and doesn't have permission to change project Grupo 3.",
  "status": 403
}
```

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "Error accessing database: ...",
  "status": 500
}
```

7. Delete Project

REQUEST

- **Uri:** DELETE /projects/{name}
- **Headers:** Authorization: Basic Auth
- **Path Parameters:**

- name - name of the project being deleted

RESPONSE

SUCCESS

- **Status:** 204 NO-CONTENT

ERROR

- **Status:** 400 BAD REQUEST
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "MissingKotlinParameterException",
  "title": "Bad parameter",
  "detail": "Instantiation of [simple type, class pt.isel.daw.controller.representation.input.ProjectInputModel$ProjectNameInputModel] value failed for JSON property name due to missing (therefore NULL) value for creator parameter name which is a non-nullable type",
  "status": 400
}
```

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "User not found.",
  "status": 404
}
```

- **Status:** 404 NOT_FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Project Grupo 3 not found.",
  "status": 404
}
```

- **Status:** 403 FORBIDDEN
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "AuthorizationException",
  "title": "Authorization exception.",
  "detail": "User not authorized.",
  "status": 403
}
```

```
    "detail": "User is not a contributor and doesn't have  
permission to change project Grupo 3.",  
    "status": 403  
}
```

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{  
  "type": "DatabaseAccessException",  
  "title": "Database access exception.",  
  "detail": "Error accessing database: ...",  
  "status": 500  
}
```

Issue

1. Create Issue

REQUEST

- **Uri:** POST /projects/{name}/issues
- **Headers:** Authorization: Basic Auth
- **Path Parameters:**
 - name - name of the project where the issue is being created
- **Body Parameters:**
 - name - name of the issue being created (required)
 - description - short description of the issue
 - labelType - array of possible labels to this issue. Must be contained in project labels
- **Body:**

```
{
  "name": "new issue",
  "description": "new description",
  "labelType" : [ "new_functionality", "defect" ]
}
```

RESPONSE

SUCCESS

- **Status:** 201 CREATED
- **Headers:** Content-type: text/plain
- **Body:** Issue 11 for project Grupo 3 created successfully.

ERROR

- **Status:** 400 BAD REQUEST
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "MissingKotlinParameterException",
  "title": "Bad parameter",
  "detail": "Instantiation of [simple type, class pt.isel.daw.controller.representation.input.IssueInputModel] value failed for JSON property name due to missing (therefore NULL) value for creator parameter name which is a non-nullable type",
  "status": 400
}
```

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json

- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Project InventedProject not found.",
  "status": 404
}
```

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "User not found.",
  "status": 404
}
```

- **Status:** 403 FORBIDDEN
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "AuthorizationException",
  "title": "Authorization exception.",
  "detail": "User is not a contributor and doesn't have permission to change project Grupo 3.",
  "status": 403
}
```

- **Status:** 400 BAD REQUEST
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "InvalidOperationException",
  "title": "Invalid operation exception.",
  "detail": "Label 'exploration' is not available in the group Grupo 3 label's list",
  "status": 400
}
```

- **Status:** 400 BAD REQUEST
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "HttpMessageNotReadableException",
  "title": "Bad parameter type",
  "detail": "org.springframework.http.converter.HttpMessageNotReadableExcept
```

```

ion: Invalid JSON input: Cannot deserialize value of type
`pt.isel.daw.model.IssueLabel` from String `"nonExistingLabel"`:
not one of the values accepted for Enum class: [defect,
exploration, new_functionality]; nested exception is
com.fasterxml.jackson.databind.exc.InvalidFormatException:
Cannot deserialize value of type `pt.isel.daw.model.IssueLabel`
from String `"nonExistingLabel"`: not one of the values accepted
for Enum class: [defect, exploration, new_functionality]\n at
[Source: (PushbackInputStream); line: 4, column: 16] (through
reference chain:
pt.isel.daw.controller.representation.input.IssueInputModel[{"la
belType\"->java.util.ArrayList[0])",
  "status": 400
}

```

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```

{
  "type": "SQLException",
  "title": "SQL Exception",
  "detail": "org.postgresql.util.SQLException: ERROR:
duplicate key value violates unique constraint
\"issue_issuelabel_pkey\"\n Detail: Key (projectname, issueid,
statetype, labeltype)=(Grupo 3, 5, open, new_functionality)
already exists.",
  "status": 500
}

```

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```

{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "Error accessing database: ...",
  "status": 500
}

```

2. Obtain All Issues from a Project

REQUEST

- **Uri:** GET /projects/{name}/issues
- **Headers:**
 - Accept: application/vnd.siren+json (optional)
- **Path Parameters:**
 - name - name of the project in which we want to retrieve the list of issues

RESPONSE

SUCCESS

- **Status:** 200 OK
- **Headers:**
 - Content-type: application/json, application/vnd.siren+json
- **Body (application/json):**

```
{
  "count": 1,
  "issues": [
    {
      "id": 11,
      "name": "new issue",
      "description": "new description",
      "createdBy": "davidwilsonluis",
      "creationDate": "2020-07-15 21:18",
      "closeDate": null,
      "stateType": "open",
      "labelType": [],
      "pname": "Grupo 3"
    }
  ]
}
```

- **Body (application/vnd.siren+json):**

```
{
  "properties": {
    "count": 1
  },
  "links": [
    {
      "rel": [
        "self",
        "/rels/project/issues",
        "collection"
      ],
      "href": "/projects/Grupo%203/issues",
      "title": "Project Grupo 3's Issues"
    },
    {
      "rel": [
        "/rels/project",
        "parent"
      ],
      "href": "/projects/Grupo%203",
      "title": "Project Grupo 3"
    }
  ],
  "actions": [
    {
      "name": "/actions/post/issue",
    }
  ]
}
```



```

    "href": "/projects/Grupo%203/issues",
    "title": "Create Issue",
    "class": [
      "/classes/issues"
    ],
    "method": "POST",
    "type": "application/json",
    "fields": [
      {
        "name": "name",
        "type": "text"
      },
      {
        "name": "description",
        "type": "text"
      },
      {
        "name": "labelType",
        "type": "IssueLabel[]"
      }
    ]
  },
  "entities": [
    {
      "class": [
        "/classes/issue"
      ],
      "properties": {
        "id": 11,
        "name": "new issue",
        "description": "new description",
        "createdBy": "davidwilsonluis",
        "creationDate": "2020-07-15 21:18",
        "closeDate": null,
        "stateType": "open",
        "labelType": [],
        "pname": "Grupo 3"
      }
    },
    {
      "links": [
        {
          "rel": [
            "self"
          ],
          "href":
            "/projects/Grupo%203/issues/11",
          "title": "Issue 11"
        }
      ]
    }
  ],
  "clazz": [
    "/classes/project"
  ]
}

```

ERROR

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json

- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Project InventedProject not found.",
  "status": 404
}
```

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "Error accessing database: ...",
  "status": 500
}
```

3. Obtain Issue Details

REQUEST

- **Uri:** GET /projects/{name}/issues/{id}
- **Headers:**
 - Accept: application/vnd.siren+json (optional)
- **Path Parameters:**
 - name – name of the project where {id} issue is contained
 - id – obtain issue with id = {id}

RESPONSE

SUCCESS

- **Status:** 200 OK
- **Headers:**
 - Content-type: application/json, application/vnd.siren+json
- **Body (application/json):**

```
{
  "id": 11,
  "name": "new issue",
  "description": "new description",
  "createdBy": "davidwilsonluis",
  "creationDate": "2020-07-15 21:18",
  "closeDate": null,
  "stateType": "open",
  "labelType": [],
  "pname": "Grupo 3"
}
```

- **Body (application/vnd.siren+json):**

```
{
  "properties": {
    "id": 11,
    "name": "new issue",
    "description": "new description",
    "createdBy": "davidwilsonluis",
    "creationDate": "2020-07-15 21:18",
    "closeDate": null,
    "stateType": "open",
    "labelType": []
  },
  "links": [
    {
      "rel": [
        "self",
        "/rels/project/issue"
      ],
      "href": "/projects/Grupo%203/issues/11",
      "title": "Issue 11"
    },
    {
      "rel": [
        "/rels/project/issues",
        "parent",
        "collection"
      ],
      "href": "/projects/Grupo%203/issues",
      "title": "Project Grupo 3's Issues"
    },
    {
      "rel": [
        "/rels/project/issue/comments",
        "collection"
      ],
      "href": "/projects/Grupo%203/issues/11/comments",
      "title": "Issue 11's Comments"
    }
  ],
  "actions": [
    {
      "name": "/actions/put/issue",
      "href": "/projects/Grupo%203/issues/11",
      "title": "Update Issue 11",
      "class": [
        "/classes/issue"
      ],
      "method": "PUT",
      "type": "application/json",
      "fields": [
        {
          "name": "name",
          "type": "text"
        },
        {
          "name": "description",
          "type": "text"
        }
      ]
    }
  ]
}
```

```

        "name": "labelType",
        "type": "IssueLabel[]"
    }
]
},
{
    "name": "/actions/patch/issue/name",
    "href": "/projects/Grupo%203/issues/11/name",
    "title": "Update Issue 11's Name",
    "class": [
        "/classes/issue"
    ],
    "method": "PATCH",
    "type": "application/json",
    "fields": [
        {
            "name": "name",
            "type": "text"
        }
    ]
},
{
    "name": "/actions/patch/issue/description",
    "href": "/projects/Grupo%203/issues/11/description",
    "title": "Update Issue 11's Description",
    "class": [
        "/classes/issue"
    ],
    "method": "PATCH",
    "type": "application/json",
    "fields": [
        {
            "name": "description",
            "type": "text"
        }
    ]
},
{
    "name": "/actions/patch/issue/state",
    "href": "/projects/Grupo%203/issues/11/state",
    "title": "Update Issue 11's State",
    "class": [
        "/classes/issue"
    ],
    "method": "PATCH",
    "type": "application/json",
    "fields": [
        {
            "name": "state",
            "type": "text"
        }
    ]
},
{
    "name": "/actions/delete/issue",
    "href": "/projects/Grupo%203/issues/11",
    "title": "Delete Issue 11",
    "class": [
        "/classes/issue"
    ],
    "method": "DELETE",

```

```

        "type": "application/json"
    }
],
"entities": [],
"clazz": [
    "/classes/issue"
]
}

```

ERROR

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```

{
    "type": "EntityNotFoundException",
    "title": "Entity not found exception.",
    "detail": "Project InventedProject not found.",
    "status": 404
}

```

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```

{
    "type": "EntityNotFoundException",
    "title": "Entity not found exception.",
    "detail": "Issue 200 of project Grupo 3 not found.",
    "status": 404
}

```

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```

{
    "type": "DatabaseAccessException",
    "title": "Database access exception.",
    "detail": "Error accessing database: ...",
    "status": 500
}

```

4. Update Issue Details

REQUEST

- **Uri:** PUT /projects/{name}/issues/{id}
- **Headers:** Authorization: Basic Auth

- **Path Parameters:**
 - name - name of the project where the issue is present
 - id – id of the issue being updated
- **Body Parameters:**
 - name – new name for the issue (required)
 - description - new description for the issue
 - labelType - array of possible labels to this issue. Must be contained in project labels

- **Body:**

```
{
  "name": "new name 5",
  "description": "new description"
}
```

RESPONSE

SUCCESS

- **Status:** 200 OK
- **Headers:** Content-type: text/plain
- **Body:** Issue 11 updated successfully

ERROR

- **Status:** 400 BAD REQUEST
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "MissingKotlinParameterException",
  "title": "Bad parameter",
  "detail": "Instantiation of [simple type, class pt.isel.daw.controller.representation.input.ProjectInputModel] value failed for JSON property name due to missing (therefore NULL) value for creator parameter name which is a non-nullable type",
  "status": 400
}
```

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "User not found.",
  "status": 404
}
```

- **Status:** 403 FORBIDDEN
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "AuthorizationException",
  "title": "Authorization exception.",
  "detail": "User is not a contributor and doesn't have
permission to change project Grupo 3.",
  "status": 403
}
```

- **Status:** 404 NOT_FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Project Grupo 3 not found.",
  "status": 404
}
```

- **Status:** 404 NOT_FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Issue 5 of project Grupo 3 not found.",
  "status": 404
}
```

- **Status:** 400 BAD REQUEST
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "HttpMessageNotReadableException",
  "title": "Bad parameter type",
  "detail":
"org.springframework.http.converter.HttpMessageNotReadableExcept
ion: Invalid JSON input: Cannot deserialize value of type
`pt.isel.daw.model.IssueLabel` from String `\"nonExistingLabel\":
not one of the values accepted for Enum class: [defect,
exploration, new_functionality]; nested exception is
com.fasterxml.jackson.databind.exc.InvalidFormatException:
Cannot deserialize value of type `pt.isel.daw.model.IssueLabel`
from String `\"nonExistingLabel\": not one of the values accepted
for Enum class: [defect, exploration, new_functionality]`
at [Source: (PushbackInputStream); line: 4, column: 16] (through
```

```
reference chain:
pt.isel.daw.controller.representation.input.IssueInputModel["labelType"]->java.util.ArrayList[0]),
    "status": 400
}
```

- **Status:** 400 BAD REQUEST
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "InvalidOperationException",
  "title": "Invalid operation exception.",
  "detail": "Label 'exploration' is not available in the group Grupo 3 label's list",
  "status": 400
}
```

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "Error accessing database: ...",
  "status": 500
}
```

5. Patch Issue Name

REQUEST

- **Uri:** PATCH /projects/{name}/issues/{id}/name
- **Headers:** Authorization: Basic Auth
- **Path Parameters:**
 - name - name of the project containing the issue that is being patched
 - id – id of the issue that is being patched
- **Body Parameters:**
 - newName – new name for the issue (required)
- **Body:**

```
{ "newName": "name" }
```

RESPONSE

SUCCESS

- **Status:** 200 OK

- **Headers:** Content-type: text/plain

Body: Issue 11's name updated successfully

ERROR

- **Status:** 400 BAD REQUEST
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "MissingKotlinParameterException",
  "title": "Bad parameter",
  "detail": "Instantiation of [simple type, class pt.isel.daw.controller.representation.input.IssueInputModel$ProjectIssueNameInputModel] value failed for JSON property newName due to missing (therefore NULL) value for creator parameter newName which is a non-nullable type",
  "status": 400
}
```

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "User not found.",
  "status": 404
}
```

- **Status:** 404 NOT_FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Project Grupo 3 not found.",
  "status": 404
}
```

- **Status:** 403 FORBIDDEN
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "AuthorizationException",
  "title": "Authorization exception.",
  "detail": "User is not a contributor and doesn't have permission to change project Grupo 3.",
  "status": 403
}
```

- **Status:** 404 NOT_FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Issue 5 of project Grupo 3 not found.",
  "status": 404
}
```

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "Error accessing database: ...",
  "status": 500
}
```

6. Patch Issue Description

REQUEST

- **Uri:** PATCH /projects/{name}/issues/{id}/description
- **Headers:** Authorization: Basic Auth
- **Path Parameters:**
 - name - name of the project containing the issue that is being patched
 - id – id of the issue that is being patched
- **Body Parameters:**
 - description – new description for the issue (required)
- **Body:**

```
{ "description": "new description of issue in patch method" }
```

RESPONSE

SUCCESS

- **Status:** 200 OK
- **Headers:** Content-type: text/plain

Body: Issue 11's description updated successfully

ERROR

- **Status:** 400 BAD REQUEST
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "MissingKotlinParameterException",
  "title": "Bad parameter",
  "detail": "Instantiation of [simple type, class pt.isel.daw.controller.representation.input.IssueInputModel$ProjectIssueNameInputModel] value failed for JSON property newName due to missing (therefore NULL) value for creator parameter newName which is a non-nullable type",
  "status": 400
}
```

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "User not found.",
  "status": 404
}
```

- **Status:** 404 NOT_FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Project Grupo 3 not found.",
  "status": 404
}
```

- **Status:** 403 FORBIDDEN
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "AuthorizationException",
  "title": "Authorization exception.",
  "detail": "User is not a contributor and doesn't have permission to change project Grupo 3.",
  "status": 403
}
```

- **Status:** 404 NOT_FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Issue 5 of project Grupo 3 not found.",
  "status": 404
}
```

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "Error accessing database: ...",
  "status": 500
}
```

6. Patch Issue State

REQUEST

- **Uri:** PATCH /projects/{name}/issues/{id}/state
- **Headers:** Authorization: Basic Auth
- **Path Parameters:**
 - name - name of the project containing the issue that is being patched
 - id – id of the issue that is being patched
- **Body Parameters:**
 - nextState – new state for the issue (required)
- **Body:**

```
{ "nextState": "closed" }
```

RESPONSE

SUCCESS

- **Status:** 200 OK
- **Headers:** Content-type: text/plain

Body: Issue 11's state updated successfully

ERROR

- **Status:** 400 BAD REQUEST
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "MissingKotlinParameterException",
```

```
    "title": "Bad parameter",
    "detail": "Instantiation of [simple type, class
pt.isel.daw.controller.representation.input.IssueInputModel$Proj
ectIssueNameInputModel] value failed for JSON property newName
due to missing (therefore NULL) value for creator parameter
newName which is a non-nullable type",
    "status": 400
}
```

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "User not found.",
  "status": 404
}
```

- **Status:** 404 NOT_FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Project Grupo 3 not found.",
  "status": 404
}
```

- **Status:** 403 FORBIDDEN
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "AuthorizationException",
  "title": "Authorization exception.",
  "detail": "User is not a contributor and doesn't have
permission to change project Grupo 3.",
  "status": 403
}
```

- **Status:** 404 NOT_FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Issue 5 of project Grupo 3 not found.",
  "status": 404
}
```

- **Status:** 406 NOT ACCEPTABLE
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "InvalidTransitionException",
  "title": "Invalid transition exception.",
  "detail": "The issue Grupo 3 - 5 is already archived and cannot be reopened.",
  "status": 406
}
```

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "Error accessing database: ...",
  "status": 500
}
```

7. Delete Issue

REQUEST

- **Uri:** DELETE /projects/{name}/issues/{id}
- **Headers:** Authorization: Basic Auth
- **Path Parameters:**
 - name - name of the project that contains the issue that is being deleted
 - id – id of the issue that is being deleted

RESPONSE

SUCCESS

- **Status:** 204 NO-CONTENT

ERROR

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "User not found.",
  "status": 404
}
```

- **Status:** 404 NOT_FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Project Grupo 3 not found.",
  "status": 404
}
```

- **Status:** 403 FORBIDDEN
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "AuthorizationException",
  "title": "Authorization exception.",
  "detail": "User is not a contributor and doesn't have
permission to change project Grupo 3.",
  "status": 403
}
```

- **Status:** 404 NOT_FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Issue 5 of project Grupo 3 not found.",
  "status": 404
}
```

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "Error accessing database: ...",
  "status": 500
}
```

Comments

1. Create Comment

REQUEST

- **Uri:** POST /projects/{name}/issues/{id}/comments
- **Headers:** Authorization: Basic Auth
- **Path Parameters:**
 - name - name of the project where the issue is being created
 - id – id of the issue where the comment is being created
- **Body Parameters:**
 - text - user's comment concerning {id} issue (required)
- **Body:**

```
{ "text": "issue comment text" }
```

RESPONSE

SUCCESS

- **Status:** 201 CREATED
- **Headers:** Content-type: text/plain
- **Body:** Comment 17 created successfully for issue 12.

ERROR

- **Status:** 400 BAD REQUEST
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "MissingKotlinParameterException",
  "title": "Bad parameter",
  "detail": "Instantiation of [simple type, class pt.isel.daw.controller.representation.input.CommentInputModel] value failed for JSON property text due to missing (therefore NULL) value for creator parameter text which is a non-nullable type",
  "status": 400
}
```

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
}
```



```
"detail": "Project Grupo 3 not found.",
"status": 404
}
```

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "User not found.",
  "status": 404
}
```

- **Status:** 403 FORBIDDEN
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "AuthorizationException",
  "title": "Authorization exception.",
  "detail": "User is not a contributor and doesn't have
permission to change project Grupo 3.",
  "status": 403
}
```

- **Status:** 400 BAD REQUEST
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "InvalidOperationException",
  "title": "Invalid operation exception.",
  "detail": "Label 'exploration' is not available in the group
Grupo 3 label's list",
  "status": 400
}
```

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "Error accessing database: ...",
  "status": 500
}
```

2. Obtain All Comments from an Issue of a Project

REQUEST

- **Uri:** GET /projects/{name}/issues/{id}/comments
- **Headers:**
 - Accept: application/vnd.siren+json (optional)
- **Path Parameters:**
 - name - name of the project in which we want to retrieve the list of issues
 - id – id of the issue where the comments are written

RESPONSE

SUCCESS

- **Status:** 200 OK
- **Headers:**
 - Content-type: application/json, application/vnd.siren+json
- **Body (application/json):**

```
• {
  "count": 1,
  "comments": [
    {
      "id": 17,
      "issueID": 12,
      "text": "issue comment text",
      "creationDate": "2020-07-16 00:17",
      "createdBy": "davidwilsonluis",
      "pname": "Grupo 3"
    }
  ]
}
```

- **Body (application/vnd.siren+json):**

```
• {
  "properties": {
    "count": 1
  },
  "links": [
    {
      "rel": [
        "self",
        "/rels/project/issue/comments",
        "collection"
      ],
      "href": "/projects/Grupo%203/issues/12/comments",
      "title": "Issue 12's Comments"
    },
    {
      "rel": [
        "/rels/project/issue",
        "parent"
      ],
      "href": "/projects/Grupo%203/issues/12",
      "title": "Issue 12"
    }
  ]
}
```

```

    ],
    "actions": [
      {
        "name": "/actions/post/comment",
        "href": "/projects/Grupo%203/issues/12/comments",
        "title": "Create comment",
        "class": [
          "/classes/comments"
        ],
        "method": "POST",
        "type": "application/json",
        "fields": [
          {
            "name": "text",
            "type": "text"
          }
        ]
      }
    ],
    "entities": [
      {
        "class": [
          "/classes/comment"
        ],
        "properties": {
          "id": 17,
          "issueID": 12,
          "text": "issue comment text",
          "creationDate": "2020-07-16 00:17",
          "createdBy": "wilsondavidluis",
          "pName": "Grupo 3"
        },
        "links": [
          {
            "rel": [
              "self"
            ],
            "href": "/projects/Grupo%203/issues/12/comments/17",
            "title": "Comment 17"
          }
        ]
      }
    ],
    "class": [
      "/classes/comments"
    ]
  }
}

```

ERROR

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```

{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Project NonExistingGroup not found.",
  "status": 404
}

```

```
}
```

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Issue 2 of project Grupo 3 not found.",
  "status": 404
}
```

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "Error accessing database: ...",
  "status": 500
}
```

3. Obtain Comment Details

REQUEST

- **Uri:** GET /projects/{name}/issues/{id}/comments/{cid}
- **Headers:**
 - Accept: application/vnd.siren+json (optional)
- **Path Parameters:**
 - name – name of the project where {id} issue is contained
 - id – obtain issue with id = {id}
 - cid – obtain comment with id = {cid}

RESPONSE

SUCCESS

- **Status:** 200 OK
- **Headers:**
 - Content-type: application/json, application/vnd.siren+json
- **Body (application/json):**

```
{
  "id": 17,
  "issueID": 12,
```

```

    "text": "issue comment text",
    "creationDate": "2020-07-16 00:17",
    "createdBy": "davidwilsonluis",
    "pname": "Grupo 3"
  }

```

- **Body (application/vnd.siren+json):**

```

{
  "properties": {
    "createdBy": "davidwilsonluis",
    "text": "issue comment text",
    "creationDate": "2020-07-16 00:17"
  },
  "links": [
    {
      "rel": [
        "self",
        "/rels/project/issue/comment"
      ],
      "href": "/projects/Grupo%203/issues/12/comments/17",
      "title": "Comment 17"
    },
    {
      "rel": [
        "/rels/project/issue/comments",
        "parent",
        "collection"
      ],
      "href": "/projects/Grupo%203/issues/12/comments",
      "title": "Issue 12's Comments"
    }
  ],
  "actions": [
    {
      "name": "/actions/delete/comment",
      "href": "/projects/Grupo%203/issues/12/comments/17",
      "title": "Delete comment",
      "class": [
        "/classes/comment"
      ],
      "method": "DELETE"
    },
    {
      "name": "/actions/put/comment",
      "href": "/projects/Grupo%203/issues/12/comments/17",
      "title": "Update comment",
      "class": [
        "/classes/comment"
      ],
      "method": "PUT",
      "type": "application/json",
      "fields": [
        {
          "name": "text",
          "type": "text"
        }
      ]
    }
  ],
  "entities": [],
  "class": [
    "/classes/comment"
  ]
}

```

```
]
}
```

ERROR

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Project NonExistingGroup not found.",
  "status": 404
}
```

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Issue 2 of project Grupo 3 not found.",
  "status": 404
}
```

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Comment 2 not found.",
  "status": 404
}
```

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "Error accessing database: ...",
  "status": 500
}
```

4. Update Comment on an Issue

REQUEST

- **Uri:** PUT /projects/{name}/issues/{id}/comments/{cid}
- **Headers:** Authorization: Basic Auth
- **Path Parameters:**
 - name - name of the project where the issue is present
 - id – id of the issue containing the comment that is being created
 - cid – id of the comment being created
- **Body Parameters:**
 - text – new comment's text for the issue (required)
- **Body:**

```
{ "text": "updated comment text" }
```

RESPONSE

SUCCESS

- **Status:** 200 OK
- **Headers:** Content-type: text/plain
- **Body:** Comment 17 edited successfully

ERROR

- **Status:** 400 BAD REQUEST
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "MissingKotlinParameterException",
  "title": "Bad parameter",
  "detail": "Instantiation of [simple type, class pt.isel.daw.controller.representation.input.CommentInputModel] value failed for JSON property text due to missing (therefore NULL) value for creator parameter text which is a non-nullable type",
  "status": 400
}
```

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "User not found.",
  "status": 404
}
```

- **Status:** 403 FORBIDDEN
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "AuthorizationException",
  "title": "Authorization exception.",
  "detail": "Comment doesn't belong to this user.",
  "status": 403
}
```

- **Status:** 404 NOT_FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Project Grupo 3 not found.",
  "status": 404
}
```

- **Status:** 404 NOT_FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Issue 5 of project Grupo 3 not found.",
  "status": 404
}
```

- **Status:** 404 NOT_FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Comment 2 not found.",
  "status": 404
}
```

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "Error accessing database: ...",
}
```



```
"status": 500
}
```

5. Delete Comment of an Issue

REQUEST

- **Uri:** DELETE /projects/{name}/issues/{id}/comments/{cid}
- **Headers:** Authorization: Basic Auth
- **Path Parameters:**
 - name - name of the project that contains the issue that is being deleted
 - id – id of the issue that contains the comments that's being deleted
 - cid – id of the comment that is being deleted

RESPONSE

SUCCESS

- **Status:** 204 NO-CONTENT

ERROR

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "User not found.",
  "status": 404
}
```

- **Status:** 403 FORBIDDEN
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "AuthorizationException",
  "title": "Authorization exception.",
  "detail": "User is not a contributor and doesn't have
permission to change project Grupo 3."
  "status": 403
}
```

- **Status:** 404 NOT_FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
```

```
"type": "EntityNotFoundException",
"title": "Entity not found exception.",
"detail": "Project Grupo 3 not found.",
"status": 404
}
```

- **Status:** 404 NOT_FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Issue 5 of project Grupo 3 not found.",
  "status": 404
}
```

- **Status:** 404 NOT_FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Comment 2 not found.",
  "status": 404
}
```

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "Error accessing database: ...",
  "status": 500
}
```

Contributors

1. Create Contributor

REQUEST

- **Uri:** POST /projects/{name}/contributors
- **Headers:** Authorization: Basic Auth
- **Path Parameters:**
 - name - name of the project where the contributor is being added
- **Body Parameters:**
 - username – name of the user being added has contributor to project (required)
- **Body:**

```
{ "username" : "aluno2" }
```

RESPONSE

SUCCESS

- **Status:** 201 CREATED
- **Headers:** Content-type: text/plain
- **Body:** Contributor 2 added to project Grupo 3.

ERROR

- **Status:** 400 BAD REQUEST
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "MissingKotlinParameterException",
  "title": "Bad parameter",
  "detail": "Instantiation of [simple type, class pt.isel.daw.controller.representation.input.ContributorInputModel] value failed for JSON property username due to missing (therefore NULL) value for creator parameter username which is a non-nullable type",
  "status": 400
}
```

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Project InventedProject not found.",
  "status": 404
}
```

```
}
```

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "User not found.",
  "status": 404
}
```

- **Status:** 403 FORBIDDEN
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "AuthorizationException",
  "title": "Authorization exception.",
  "detail": "User is not a contributor and doesn't have
permission to change project Grupo 3.",
  "status": 403
}
```

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "Error accessing database: ...",
  "status": 500
}
```

2. Obtain All Contributors of Project

REQUEST

- **Uri:** GET /projects/{name}/contributors
- **Headers:**
 - Accept: application/vnd.siren+json (optional)
- **Path Parameters:**
 - name - name of the project in which we want to retrieve the list of contributors

RESPONSE

SUCCESS

- **Status:** 200 OK
- **Headers:**
 - Content-type: application/json, application/vnd.siren+json
- **Body (application/json):**

```
{
  "count": 2,
  "contributors": [
    {
      "userID": 1,
      "username": "aluno1",
      "pname": "Grupo 3"
    },
    {
      "userID": 2,
      "username": "aluno2",
      "pname": "Grupo 3"
    }
  ]
}
```

- **Body (application/vnd.siren+json):**

```
{
  "properties": {
    "count": 2
  },
  "links": [
    {
      "rel": [
        "self",
        "/rels/project/contributors",
        "collection"
      ],
      "href": "/projects/Grupo%203/contributors",
      "title": "All Contributors"
    },
    {
      "rel": [
        "/rels/project",
        "parent"
      ],
      "href": "/projects/Grupo%203",
      "title": "Project Grupo 3"
    }
  ],
  "actions": [
    {
      "name": "/actions/post/contributor",
      "href": "/projects/Grupo%203/contributors",
      "title": "Add contributor to project Grupo 3",
      "class": [
        "/classes/contributors"
      ],
      "method": "POST",
      "type": "application/json",
      "fields": [
        {
          "name": "userID",
          "type": "int"
        }
      ]
    }
  ]
}
```

```

    },
    {
      "name": "ProjectName",
      "type": "text"
    }
  ]
},
],
"entities": [
{
  "class": [
    "/classes/contributor"
  ],
  "properties": {
    "userID": 1,
    "username": "aluno1",
    "projectName": "Grupo 3"
  },
  "links": [
    {
      "rel": [
        "self"
      ],
      "href": "/projects/Grupo%203/contributors/aluno1",
      "title": "Contributor aluno1"
    }
  ]
},
{
  "class": [
    "/classes/contributor"
  ],
  "properties": {
    "userID": 2,
    "username": "aluno2",
    "projectName": "Grupo 3"
  },
  "links": [
    {
      "rel": [
        "self"
      ],
      "href": "/projects/Grupo%203/contributors/aluno2",
      "title": "Contributor aluno2"
    }
  ]
}
],
"clazz": [
  "/classes/contributors"
]
}

```

ERROR

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Project InventedProject not found.",
  "status": 404
}
```

- **Status:** 500 INTERNAL SERVER ERROR
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "Error accessing database: ...",
  "status": 500
}
```

3. Obtain Contributor Details of Project

REQUEST

- **Uri:** GET /projects/{name}/contributors/{ctrName}
- **Headers:**
 - Accept: application/vnd.siren+json (optional)
- **Path Parameters:**
 - name – name of the project where contributor is contained
 - ctrName – name of the contributor whose details will be displayed

RESPONSE

SUCCESS

- **Status:** 200 OK
- **Headers:**
 - Content-type: application/json, application/vnd.siren+json
- **Body (application/json):**

```
{
  "userID": 1,
  "username": "aluno1",
  "pname": "Grupo 3"
}
```

- **Body (application/vnd.siren+json):**

```
{
  "properties": {
    "userID": 1,
    "ProjectName": "Grupo 3"
  },
  "links": [
    {
      "rel": [
```

```

        "self"
      ],
      "href": "/projects/Grupo%203/contributors/aluno1",
      "title": "Contributor 1"
    },
    {
      "rel": [
        "/rels/project"
      ],
      "href": "/projects/Grupo%203",
      "title": "Project Grupo 3"
    }
  ],
  "actions": [
    {
      "name": "/actions/delete/contributor",
      "href": "/projects/Grupo%203/contributors/aluno1",
      "title": "Remove contributor",
      "class": [
        "/classes/contributor"
      ],
      "method": "DELETE"
    }
  ],
  "entities": [],
  "clazz": [
    "/classes/comment"
  ]
}

```

ERROR

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```

{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Project InventedProject not found.",
  "status": 404
}

```

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```

{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "User nonexistinguser not found.",
  "status": 404
}

```

- **Status:** 500 INTERNAL SERVER ERROR

- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "Error accessing database: ...",
  "status": 500
}
```

4. Remove Contributor from Project

REQUEST

- **Uri:** DELETE /projects/{name}/contributors/{ctrName}
- **Headers:** Authorization: Basic Auth
- **Path Parameters:**
 - name - name of the project containing the contributor being deleted
 - ctrName – name of the contributor being deleted

RESPONSE

SUCCESS

- **Status:** 204 NO-CONTENT

ERROR

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "Project InventedProject not found.",
  "status": 404
}
```

- **Status:** 404 NOT FOUND
- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "EntityNotFoundException",
  "title": "Entity not found exception.",
  "detail": "User not found.",
  "status": 404
}
```

- **Status:** 500 INTERNAL SERVER ERROR

- **Headers:** Content-type: application/problem+json
- **Body:**

```
{
  "type": "DatabaseAccessException",
  "title": "Database access exception.",
  "detail": "Error accessing database: ...",
  "status": 500
}
```