

API Specification

There are three types of resources: User, Category, and Item.

Every item belongs to one and only one Category.

1. User:

POST /users

create user

Body:	{ "name" : "password" :	<string: username>, <string: password>}
Header:	{ "Content-Type":	"application/json"
JWT:	none	
Expected return:	{ "message":	"User created successfully"} 201 Created

Error:

400 Bad Request

Invalid header

{ "message": "Invalid Content-Type header" }

User name already exists

{ "message": "user already exists" }

Invalid data (missing fields, empty fields' values)

{ "message": "Invalid data" }

POST /auth

retrieving jwt, authenticate an user

Body:	{ "username" : "password" :	<string: username>, <string: password>}
Header:	{ "Content-Type":	"application/json"
JWT :	none	
Expected return:	{ "token":	json web token} 200 OK

Error:

400 Bad Request

Invalid header

{ "message": "Invalid Content-Type header" }

Invalid actions

{ "message": "Invalid action" }

PUT /users/<int:user_id>

update user

Body:	{ "username" : "password" :	<string: username> <string: new_password>}
Header:	{ "Content-Type": "Authorization":	"application/json", "Bearer <string: token>"}
JWT :	required	

Expected return: {"message":"User updated successfully"} 200 OK

Error: **400 Bad Request**
Invalid headers
{"message":"Invalid Content-Type header"}
{"message":"Invalid Authorization header"}
Invalid actions
{"message":"Invalid action"}

2. Category:

Category "Unspecified" is a default category and cannot be altered

GET /categories retrieve all categories

Body: none
Header: none
JWT: none
Expected return: [list of categories in JSON format] 200 OK
Error: none

GET /categories/<int:category_id> retrieve a category

Body: none
Header: none
JWT: none
Expected return: {"name" : <string:name>,
"items" : [list of items in JSON format]}, 200 OK

Error: **404 Not Found**
{"message":"No category found"}

POST /categories/<int:category_id> create a category

Body: none
Header: {"Authorization": "Bearer <string: token>"}
JWT: required, only logged in users can perform
Expected return: created category in JSON format, 201 Created

Error: **400 Bad Request**
Invalid headers
{"message":"Invalid Content-Type header"}
{"message":"Invalid Authorization header"}
Category name already exists

{"message":"category already exists"}
Invalid data (missing fields, empty fields' values)
 {"message":"Invalid data"}

401 Unauthorized

Invalid token
 {"message":"Invalid Token"}
Token is expired
 {"message":"Token is expired"}

PUT /categories/<int:category_id> update a category

Body: {"name" : <string: name>}
Header: {"Content-Type": "application/json",
 "Authorization": "Bearer <string: token>"}
JWT: required, only creator can perform
Expected return: updated category in JSON format, 200 OK

Error: 400 Bad Request

Invalid headers
 {"message":"Invalid Content-Type header"}
 {"message":"Invalid Authorization header"}
Category name already exists
 {"message":"category already exists"}
Invalid data (missing fields, empty fields' values)
 {"message":"Invalid data"}

401 Unauthorized

Invalid token
 {"message":"Invalid Token"}
Valid token, but unauthorized action
 {"message":"Unauthorized action"}
Token is expired
 {"message":"Token is expired"}

404 Not Found

 {"message":"No category found"}

DELETE /categories/<int:category_id> delete a category

All associated items are moved to "Unspecified" category

Body: none
Header: {"Authorization": "Bearer <string: token>"}
JWT: required, only creator can perform
Expected return: {"message":"Category deleted"} 200 OK

Error: **400 Bad Request**

Invalid headers

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{"message": "Invalid Content-Type header"}
{"message": "Invalid Authorization header"}

```

Category name already exists

```

{"message": "category already exists"}

```

Invalid data (missing fields, empty fields' values)

```

{"message": "Invalid data"}

```

401 Unauthorized

Invalid token

```

{"message": "Invalid Token"}

```

Valid token, but unauthorized action

```

{"message": "Unauthorized action"}

```

Token is expired

```

{"message": "Token is expired"}

```

404 Not Found

```

{"message": "No category found"}

```

3. Item:

GET /items **retrieve all items**

Body: none

Header: none

JWT: none

Expected return: {[list of items in JSON format]}, 200 OK

GET /items/<int:item_id> **retrieve an item**

Body: none

Header: none

JWT: none

Expected return: {item in JSON format}, 200 OK

Error: **404 Not Found**

```

{"message": "No item found"}

```

POST /items/<int:item_id> **create an item**

Body: {"name": <string:name>,
"description": <string:description>,
"category_id": <int: category_id>}

Header: {"Content-Type": "application/json",
"Authorization": "Bearer <string: token>"}

JWT: required, only logged in users can perform
Expected return: created item in JSON format, 201 Created

Error: **400 Bad Request**
Invalid headers
 {"message": "Invalid Content-Type header"}
 {"message": "Invalid Authorization header"}
Item name already exists
 {"message": "item already exists"}
Invalid data (missing fields, empty fields' values)
 {"message": "Invalid data"}
401 Unauthorized
Invalid token
 {"message": "Invalid Token"}
Token is expired
 {"message": "Token is expired"}

PUT /items/<int:item_id> **update an item**

Body: {"name": <string:name>,
"description": <string:description>,
"category_id": <int:category_id>}

Header: {"Content-Type": "application/json",
"Authorization": "Bearer <string: token>"}

JWT: required, only creator can perform
Expected return: updated item in JSON format, 200 OK

Error: **400 Bad Request**
Invalid headers
 {"message": "Invalid Content-Type header"}
 {"message": "Invalid Authorization header"}
Item name already exists
 {"message": "item already exists"}
Invalid data (missing fields, empty fields' values)
 {"message": "Invalid data"}
Non-existed category_id
 {"message": "Failed to save item"}
401 Unauthorized
Invalid token
 {"message": "Invalid Token"}
Valid token, but unauthorized action
 {"message": "Unauthorized action"}

Token is expired
{"message": "Token is expired"}
404 Not Found
{"message": "No item found"}

DELETE	/items/<int:item_id>	delete an item
Body:	none	
Header:	{ "Authorization": "Bearer <string: token>" }	
JWT:	required, only creator can perform	
Expected return:	{ "message": "Item deleted" }	200 OK
Error:	400 Bad Request Invalid headers {"message": "Invalid Content-Type header"} {"message": "Invalid Authorization header"} Category name already exists {"message": "category already exists"} Invalid data (missing fields, empty fields' values) {"message": "Invalid data"} 401 Unauthorized Invalid token {"message": "Invalid Token"} Valid token, but unauthorized action {"message": "Unauthorized action"} Token is expired {"message": "Token is expired"} 404 Not Found {"message": "No category found"}	