Search Scope API DOCUMENTATION

# OVERVIEW

This Web API provides endpoints for user authentication and product management using **JWT (JSON Web Token) authentication**. It applies the **Mediator** and **Repository** **patterns** for clean and efficient design and includes **Swagger** for easy API documentation.

The API includes the following features:

* **User Authentication**: Obtain a JWT token to access protected resources.
* **Product Search**: Search and filter products from the database.
* **Search History**: Manage and retrieve user search history and associated results.

**Endpoints:**

**1. User Authentication**

POST /api/Account/Login

Authenticate users and issue a JWT token.

**Request Body:**

{

"username": "string",

"password": "string"

}

**Responses: Returns a JWT token.**

* 200 OK: Returns a JWT token.
* 400 Bad Request: "Username or password cannot be empty."
* 401 Unauthorized: Authentication failed.
* 500 Internal Server Error: An unexpected error occurred.

**Example Response**:

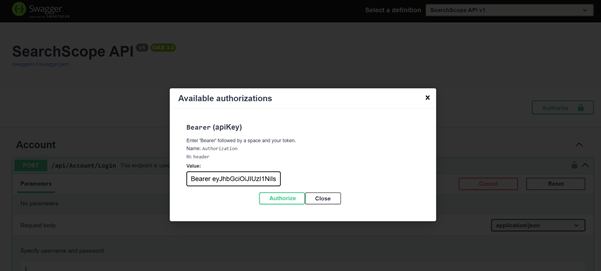
{

"message": "Login successful!",

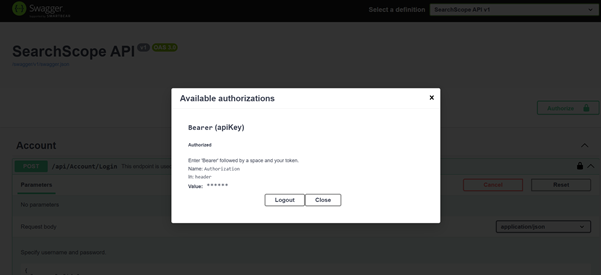
"token": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJVc2VySWQiOiIxIiwiVXNlcm5hbWUiOiJqb2huIiwiRW1haWwiOiJqb2huLmRvZUBleGFtcGxlLmNvbSIsImV4cCI6MTc0NTkwNjAwMywiaXNzIjoiU2VhcmNoU2NvcGVBUEkiLCJhdWQiOiJTZWFyY2hTY29wZUFQSSJ9.zEnQuUajiXx20qGHdEN7bEHOQTbuTEWp9pbfNYGrs0o"

}

**Authorize using: Bearer “token”**



**Authorized:**



**2. Search Products:**

GET /api/SearchProducts

Search products with optional filters and sorting.

**Query Parameters:**

* query (required): Search query (e.g., product Id, product name, product description).
* filter (optional): Apply filters to search (e.g., discontinued, category)
* sortBy (optional): Field to sort by (UnitPrice, UnitsInStock, Popularity, ProductionData).
* isAscending (optional): Sort order (true for ascending, default is true).

**Responses: Returns list of products based on query, filter and sort**

* 200 OK: Returns a list of products.
* 204 No Content: No products found.
* 400 Bad Request: "Query cannot be empty."
* 500 Internal Server Error: An unexpected error occurred.

**Example Response:**

[

{

"id": 3,

"name": "iPhone 14",

"description": "Mobile phone with iOS version 14",

"category": "Mobile",

"unitPrice": 15,

"unitsInStock": 200,

"popularity": 9,

"discontinued": false,

"productionData": "2021-11-25T00:00:00"

}

]

3. **Search History**

**GET** /api/SearchProducts/SearchHistory

Retrieve the search history for the logged-in user.

**Query Parameters**:

* isAscending (optional): Sort order (true for ascending, default is true).

**Responses: Returns a list of search history items.**

* 200 OK: Returns a list of search history items.
* 204 No Content: No search history found.
* 401 Unauthorized: User is unauthorized.
* 500 Internal Server Error: An unexpected error occurred.

**Example Response**:

[

{

"historyId": 11,

"keyword": "led desk lamp",

"filterCriteria": "Category: Home Appliances",

"userId": 1,

"searchDate": "2025-04-20T08:00:00",

"totalResults": 2

},

{

"historyId": 5,

"keyword": "LG fridge",

"filterCriteria": "Category: Home appliances",

"userId": 1,

"searchDate": "2025-04-20T16:20:00",

"totalResults": 1

},

{

"historyId": 1,

"keyword": "wireless mouse",

"filterCriteria": "Category: Electronics",

"userId": 1,

"searchDate": "2025-04-23T14:30:00",

"totalResults": 2

}

]

**4. Search History Results**

**GET** /api/SearchProducts/SearchHistoryResult

Retrieve search results by history ID.

**Query Parameters:**

* searchHistoryId (required): ID of the search history.
* sortBy (optional): Field to sort by (RelevanceScore, SearchDate, Popularity).
* isAscending (optional): Sort order (true for ascending, default is true).

**Responses: Returns all the search results for given search Id.**

* 200 OK: Returns search results.
* 204 No Content: No results found.
* 400 Bad Request: "Invalid search history ID."
* 401 Unauthorized: User is unauthorized.
* 500 Internal Server Error: An unexpected error occurred.

**Example Response:**

[

{

"id": 1,

"productId": 1,

"searchHistoryId": 1,

"name": "Wireless Mouse",

"unitPrice": 25.99,

"discontinued": false,

"keyword": "wireless mouse",

"popularity": 8,

"searchDate": "2025-04-23T14:30:00",

"relevanceScore": 0.95

},

{

"id": 6,

"productId": 1,

"searchHistoryId": 1,

"name": "Wireless Mouse",

"unitPrice": 25.99,

"discontinued": false,

"keyword": "wireless mouse",

"popularity": 3,

"searchDate": "2025-04-19T14:30:00",

"relevanceScore": 0.15

},

{

"id": 7,

"productId": 1,

"searchHistoryId": 1,

"name": "Wireless Mouse",

"unitPrice": 25.99,

"discontinued": false,

"keyword": "wireless mouse",

"popularity": 1,

"searchDate": "2025-04-11T14:30:00",

"relevanceScore": 0.05

}

]