# API Documentation: Pagination and Data Retrieval

This document provides guidance on how to interact with the API to retrieve and paginate data correctly. The API returns data in the following format:

## Response Format

{  
 "total": 3,  
 "resources": [  
 {  
 "id": "as1",  
 "name": "name 1",  
 "type": "Ex",  
 "humanAdGroups": ["consumer"]  
 },  
 {  
 "id": "as2",  
 "name": "name 2",  
 "type": "Ex",  
 "humanAdGroups": []  
 },  
 {  
 "id": "as3",  
 "name": "name 3",  
 "type": "Ex",  
 "humanAdGroups": []  
 }  
 ]  
}

### Field Descriptions:

- \*\*`total`\*\*: The total number of records available in the data source.

- \*\*`resources`\*\*: An array of objects representing the individual data entries.

- \*\*`id`\*\*: The unique identifier of the resource.

- \*\*`name`\*\*: The name of the resource.

- \*\*`type`\*\*: The type of the resource (e.g., "Ex").

- \*\*`humanAdGroups`\*\*: A list of names of groups that have access rights to the resource. If empty, no groups have access.

## Query Parameters for Pagination and Sorting

To customize and paginate your API requests, use the following query parameters:

### start  
- \*\*Description\*\*: The index of the first item to retrieve (0-based).  
- \*\*Type\*\*: Integer  
- \*\*Example\*\*: `?start=0 (Start from the first record).`

### size  
- \*\*Description\*\*: The number of items to retrieve per page.  
- \*\*Type\*\*: Integer  
- \*\*Example\*\*: `?size=10 (Retrieve 10 items per page).`

### sort  
- \*\*Description\*\*: The field to sort by.  
- \*\*Type\*\*: String  
- \*\*Example\*\*: `?sort=name (Sort results by the `name` field).`

### desc  
- \*\*Description\*\*: Whether to sort results in descending order.  
- \*\*Type\*\*: Boolean  
- \*\*Example\*\*: `?desc=true (Sort in descending order).`

### query  
- \*\*Description\*\*: A keyword to filter the results.  
- \*\*Type\*\*: String  
- \*\*Example\*\*: `?query=name 1 (Retrieve resources with `name` matching 'name 1').`

## Example API Requests

Retrieve the first page of data (default size):  
```bash  
GET /api/resources?start=0&size=10  
```

Retrieve data sorted by `name` in ascending order:  
```bash  
GET /api/resources?start=0&size=5&sort=name&desc=false  
```

Retrieve data sorted by `id` in descending order:  
```bash  
GET /api/resources?start=0&size=5&sort=id&desc=true  
```

Search for resources with the keyword `consumer`:  
```bash  
GET /api/resources?query=consumer  
```

## Notes

- Default Pagination: If `start` or `size` is not specified, default values will be applied (`start=0`, `size=10`).

- Sorting Defaults: If `sort` is omitted, the API may use a default field to sort the results.

- Empty Results: If no resources match the query, the `resources` array will be empty, and `total` will be `0`.