

# Design for Filtering, Pagination, and Sorting

Introduction

## Support for Filtering Data

# Support for Filtering Data

Collection may contain large  
amount of data

Pass filter as query string in  
the URL

# Filter Example

**Returns a collection:**

GET /api/colleges

**Returns a filtered collection:**

GET /api/colleges?zipcode=19007

STEP 18: Identify the Need for Filtering and Add If Needed

## Support for Pagination of Data

# Support for Pagination of Data

GET requests may  
return large  
number of items

# Pagination Example

**Returns a large number of items:**

GET /api/colleges



# Support for Pagination of Data

GET requests may  
return large  
number of items

Paging can return  
subset of data at a  
time

# Support for Pagination of Data

GET requests may  
return large  
number of items

Paging can return  
subset of data at a  
time

Page number and  
page size to be  
used

# Pagination Example

**Returns a large number of items:**

GET /api/colleges

**Returns a subset of items:**

GET /api/colleges?page=3&pageSize=25

GET /api/colleges?page=3&size=25

# Support for Pagination of Data

GET requests may  
return large  
number of items

Paging can return  
subset of data at a  
time

Page number and  
page size to be  
used

Include total items  
count

# Paging Example with Count

GET /api/colleges?page=3&pageSize=25

## Response:

```
{  
  totalPages: 10,  
  results:  
    [  
      ...  
    ]  
}
```

# Support for Pagination of Data

GET requests may  
return large  
number of items

Paging can return  
subset of data at a  
time

Page number and  
page size to be  
used

Include total items  
count

May include  
navigation  
between pages

# Paging Navigation Example

GET /api/colleges?page=3&pageSize=25

## Response:

```
{
  totalPages: 10,
  prevPage: "/api/colleges?page=2",
  nextPage: "/api/colleges?page=4",
  results:
    [
      ...
    ]
}
```

# Paging Navigation Example

GET /api/colleges?page=3&pageSize=25

## Response:

```
{
  totalPages: 10,
  prevPage: "/api/colleges?page=2",
  nextPage: "/api/colleges?page=4",
  results:
    [
      ...
    ]
}
```



STEP 19: Identify the Need for Pagination and Add If Needed

Support for Sorting Data

# Support for Sorting Data

May include field name to  
sort the results on

# Sorting Example

**Returns college items:**

GET /api/colleges

**Returns college items sorted by college name:**

GET /api/colleges?sort=collegeName

# Sorting Example

**Returns college items:**

GET /api/colleges

**Returns college items sorted by college name:**

GET /api/colleges?sort=collegeName

# Support for Sorting Data

May include field name to  
sort the results on

Provide a default value for  
sorting

# Sorting Example

**Returns college items sorted by college name:**

GET /api/colleges?sort=collegeName

# Sorting Example

**Returns college items sorted by college name:**

GET /api/colleges?sort=collegeName

**Default sort value:**

GET /api/colleges

GET /api/colleges?sort=collegeId



STEP 20: Identify the Need for Sorting and Add If Needed

# Design for Filtering, Pagination, and Sorting

Summary