

Recipes Management System

Amdocs New Tech - Catalog

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This is a combination of three microservices.

[Recipes-Authoring-Command-Service](#) → ¹ Handling all CRUD APIs and sending data to Kaka Queue.

[Recipes-Search-Consumer-Service](#) → ² Consuming Kafka queue and indexing in Elastic search.

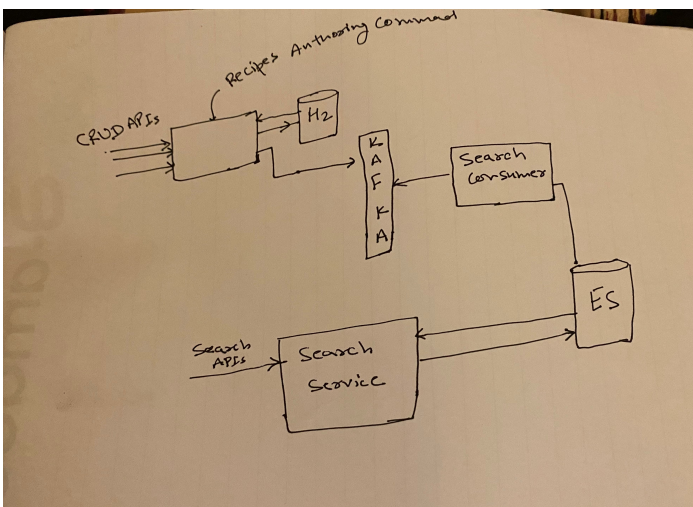
[Recipes-Search-Service](#) → ³ Searching in Elastic Search.

For Fast searching, I used Elastic Search.

For async processing → Kafka.

It is production ready → as we can do the scaling of any of the MS based on the traffic received.

Architecture:



Run Instruction:

Elastic Search:

It requires running an elastic search on the local host.

Download Elasticsearch from here. https://artifacts.elastic.co/downloads/elasticsearch/elasticsearch-8.4.0-windows-x86_64.zip

Extract the zip file

Disable the security, inside config/elasticsearch.yaml. please change all fields to false.

Now Run bin/elasticsearch.bat

Kafka: No need to install Kafka, it uses my already hosted Kafka(free version for personal training).

¹ <https://github.com/akibandali/Recipes-Management-Search-System/tree/main/Recipes-Authoring-Command-Service>

² <https://github.com/akibandali/Recipes-Management-Search-System/tree/main/Recipes-Search-Consumer-Service>

³ <https://github.com/akibandali/Recipes-Management-Search-System/tree/main/Recipes-Search-Service>

Microservices:

Check out → <https://github.com/akibandali/Recipes-Management-Search-System>

Boot up all 3 microservices using their boot classes.

It is ready to call CRUD or search APIs as explained below.

Recipes CRUD APIs:

Get recipe:

Get: localhost:8083/v1/authoring/recipe/{id}

Ex: localhost:8083/v1/authoring/recipe/7f0b17f0-ddfa-4752-b151-d83c1fd594a1

Add a new recipe:

POST: localhost:8083/v1/authoring/recipe

Body:

```
{
  "name": "pasta",
  "type": "veg",
  "chef": "Gordon Ramsay",
  "servings": 10,
  "ingredients": [
    "pasta",
    "salt",
    "cream"
  ],
  "instructions": [
    "Bake onion oven ",
    "boil pasta"
  ]
}
```

Update Recipe:

PUT: localhost:8083/v1/authoring/recipe/{id}

Body:

```
{
```

```

"name": "pasta",
"type": "veg",
"chef": "Gordon Ramsay",
"servings": 10,
"ingredients": [
  "pasta",
  "salt",
  "cream"
],
"instructions": [
  "Bake onion oven ",
  "boil pasta"
]
}

```

Delete: localhost:8083/v1/authoring/recipe/{id}

localhost:8083/v1/authoring/recipe/7f0b17f0-ddfa-4752-b151-d83c1fd594a1

Search API:

Search API can perform inclusion and exclusion with some free text search. PSB

POST: localhost:8080/v1/search/recipes

Body:

Search all Veg recipes,

```

{
  "filterConditions": [
    {
      "field": "type",
      "value": "veg",
      "type": "INCLUDE"
    }
  ],
  "from": 0,
  "size": 100
}

```

Search all veg recipes without 'salmon' as ingredients

```
{
  "filterConditions": [
    {
      "field": "type",
      "value": "veg",
      "type": "INCLUDE"
    },
    {
      "field": "ingredients",
      "value": "salmon",
      "type": "EXCLUDE"
    }
  ],
  "from": 0,
  "size": 100
}
```

1. Search all veg recipes without 'salmon' as ingredients and 'oven' in "instructions".

```
{
  "filterConditions": [
    {
      "field": "type",
      "value": "veg",
      "type": "INCLUDE"
    },
    {
      "field": "ingredients",
      "value": "salmon",
      "type": "EXCLUDE"
    }
  ],
  "freeTextCondition": {
    "field": "instructions",
    "value": "oven"
  },
}
```

```
"from": 0,  
"size": 100  
}
```