Working with POJOs and JSON

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Overview

Briefly cover the JSON data format for data storage and exchange

Upload JSON file to S3 and add GSON library

Map JSON data storage to POJOs

Modify InventoryFindFunction to use GSON to read JSON data from S3

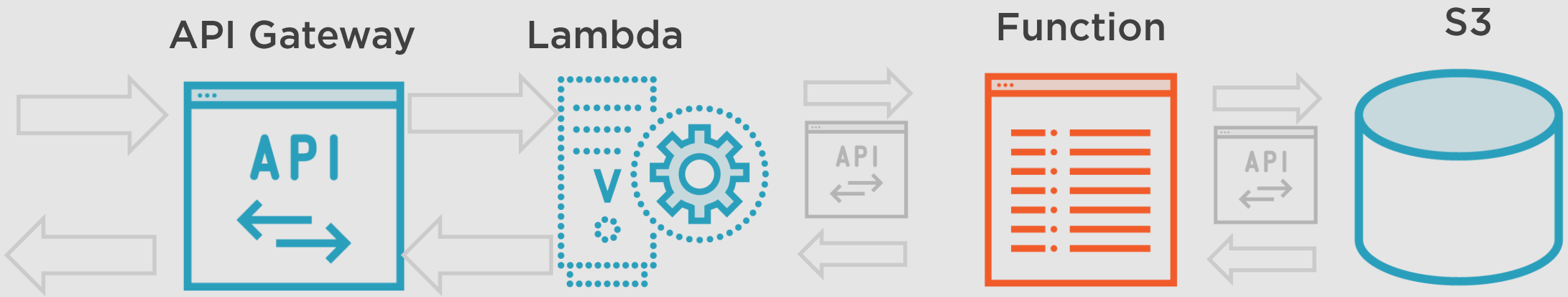
Demo

Learn about how JSON is used for data storage and exchange

Learn how JSON data is structured

Upload JSON file to S3 for data storage

Invoking the InventoryFindFunction



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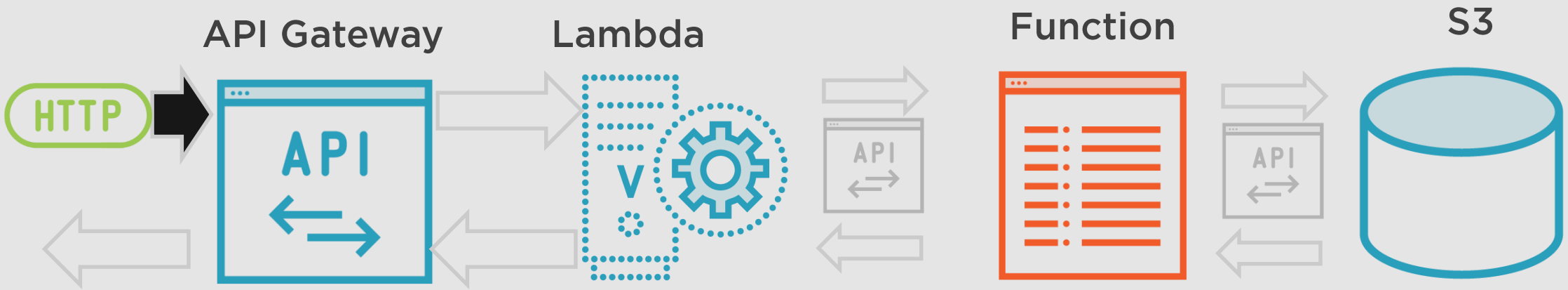

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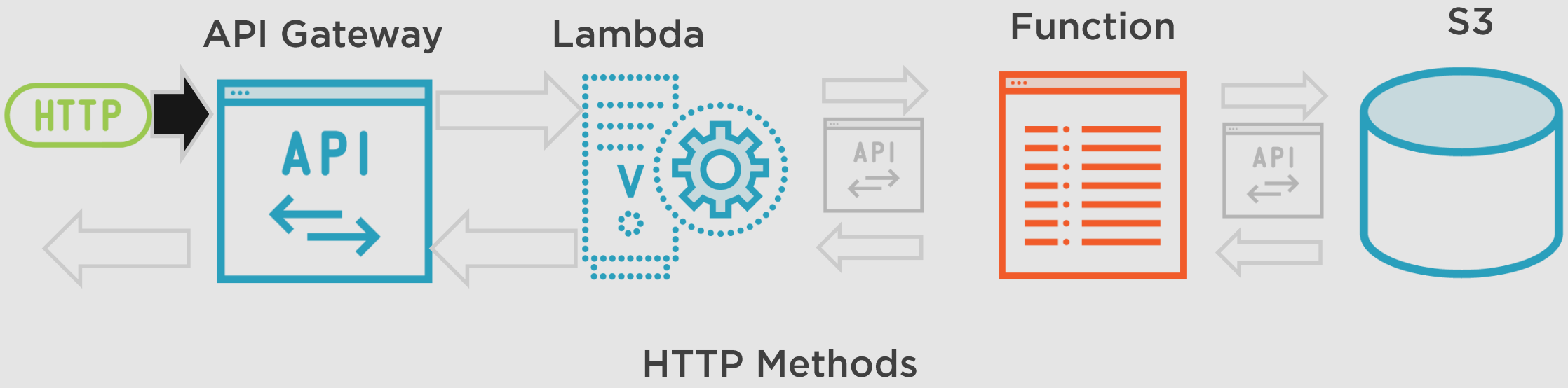

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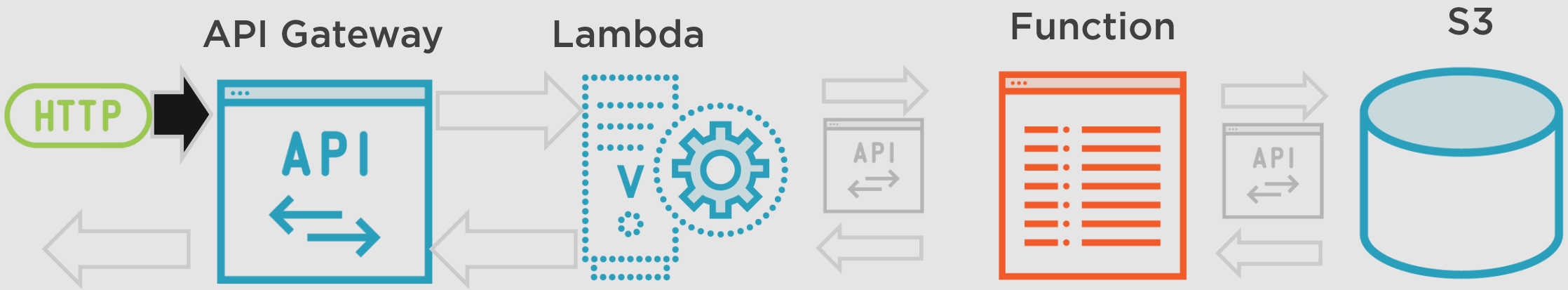

HTTP Methods

- GET

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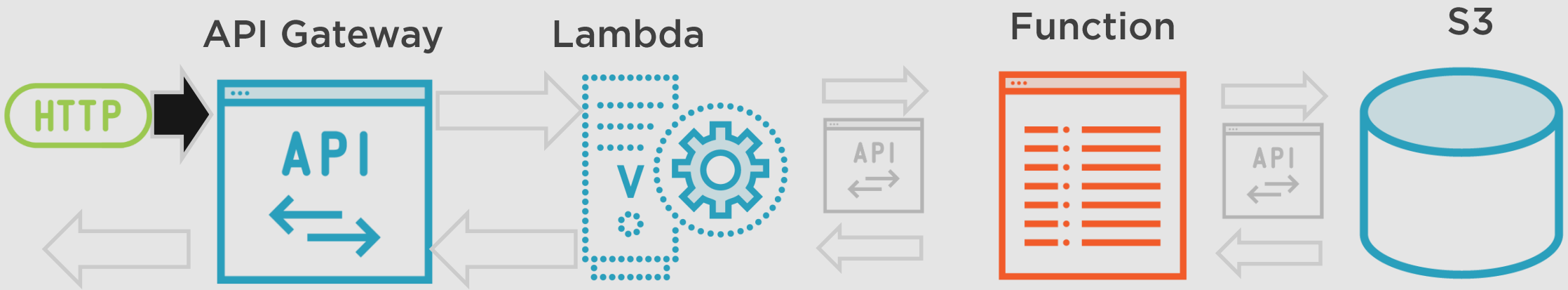

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- GET
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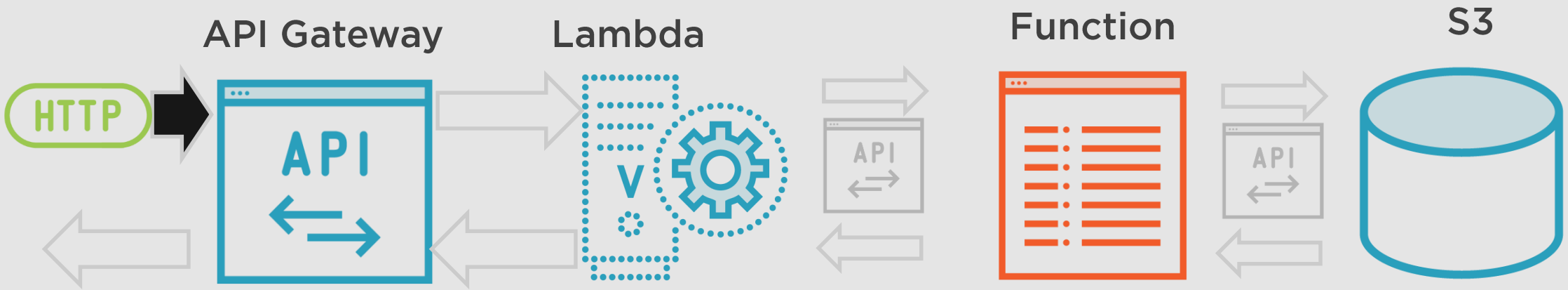

CRUD Model
- CREATE
- READ
- UPDATE
- DELETE

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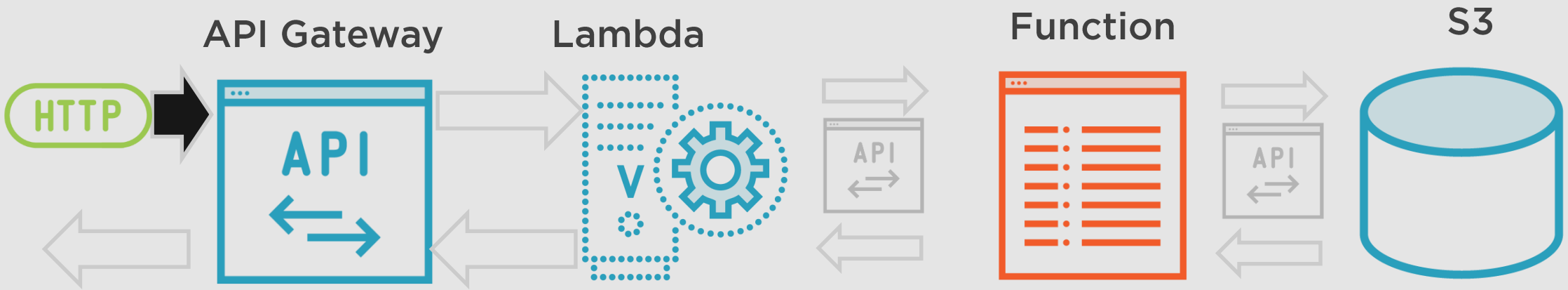

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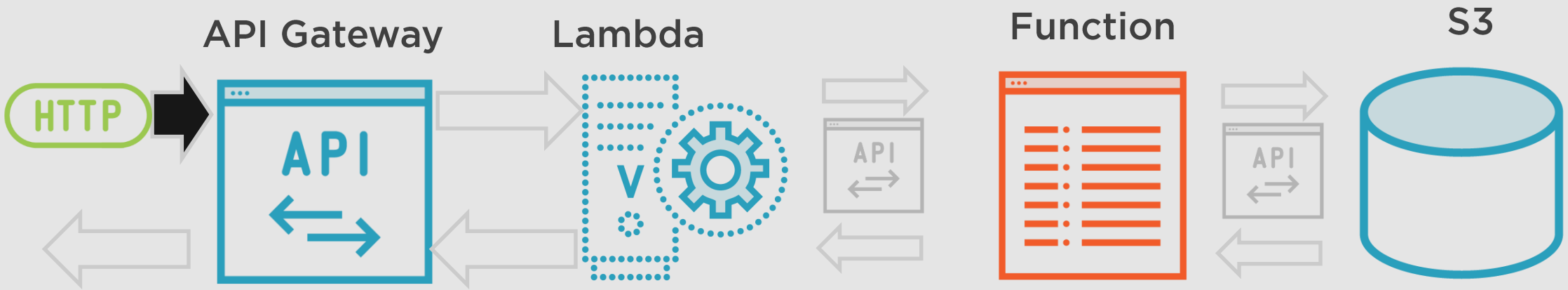

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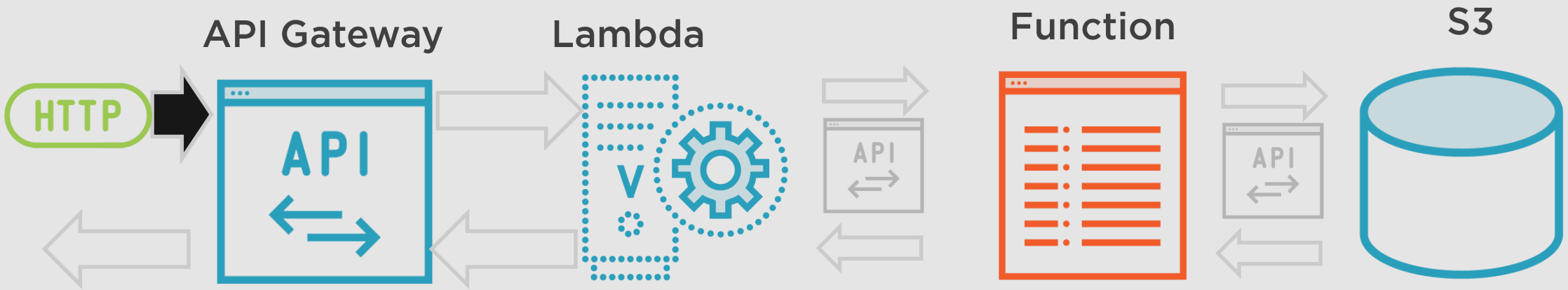

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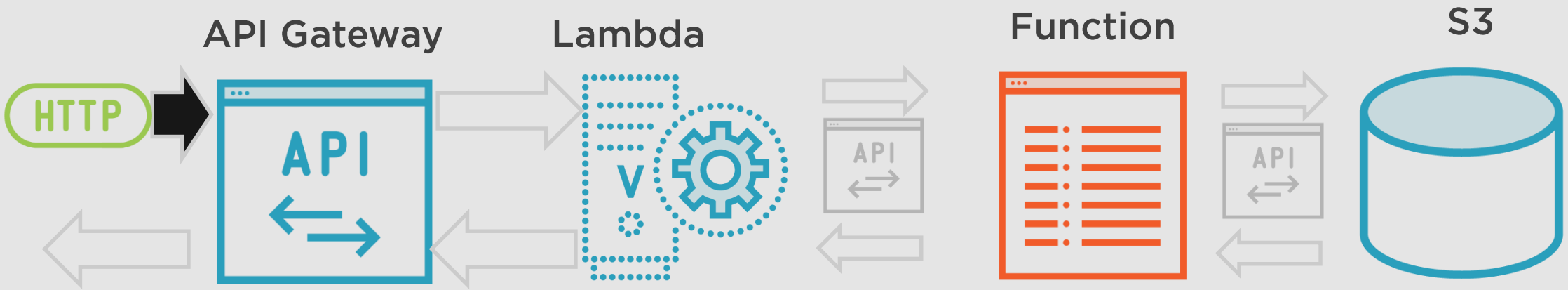

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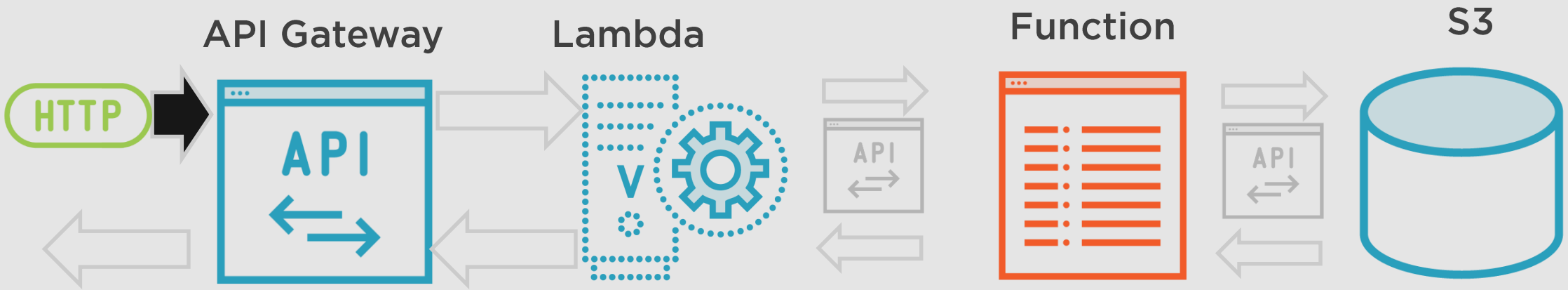

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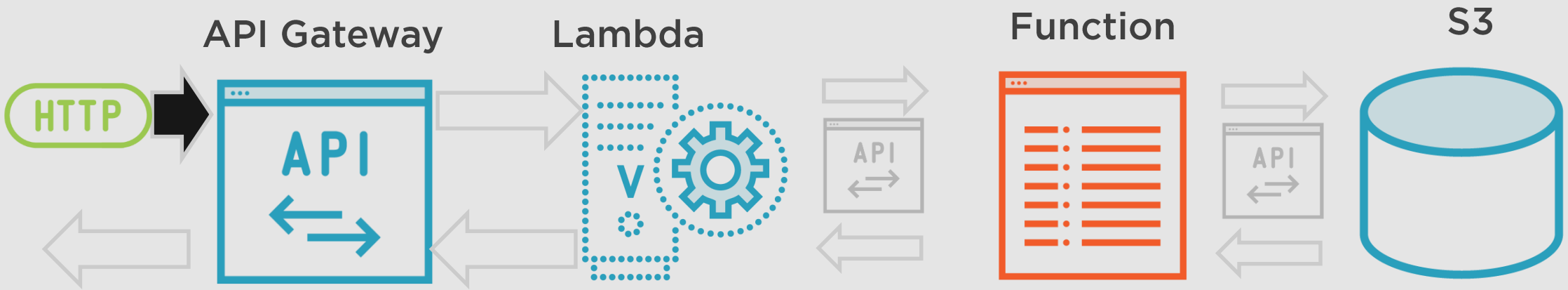

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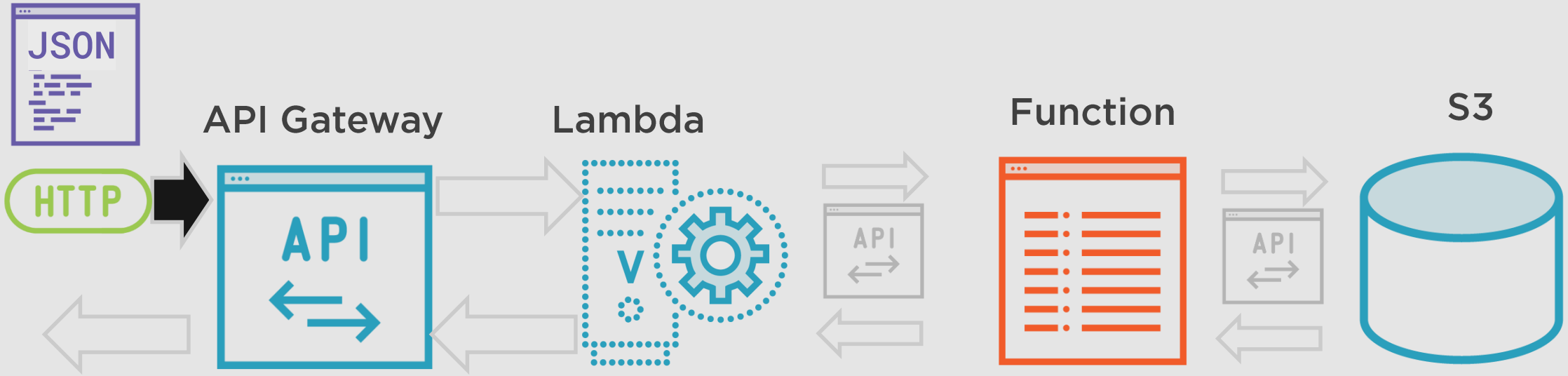

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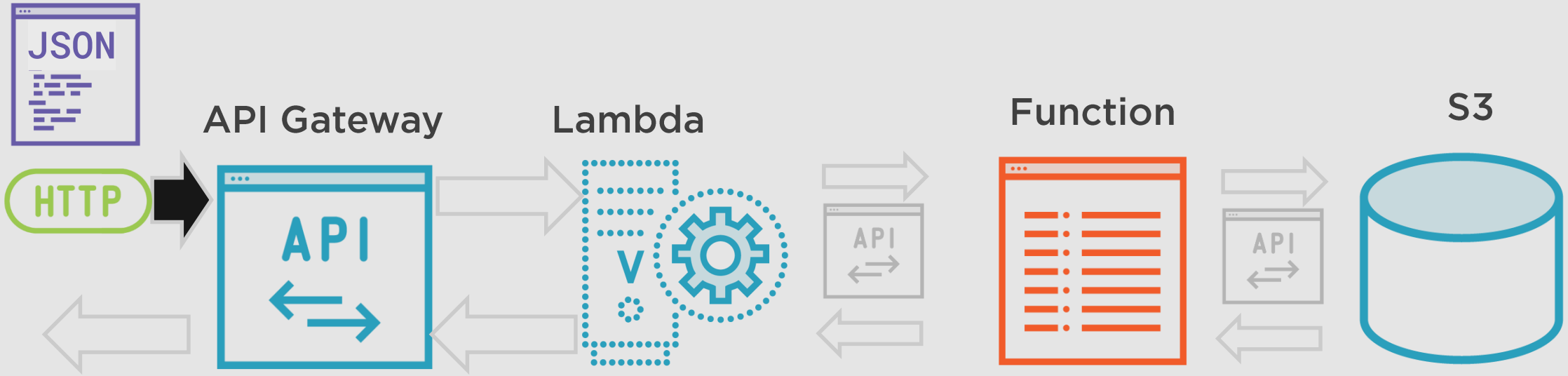

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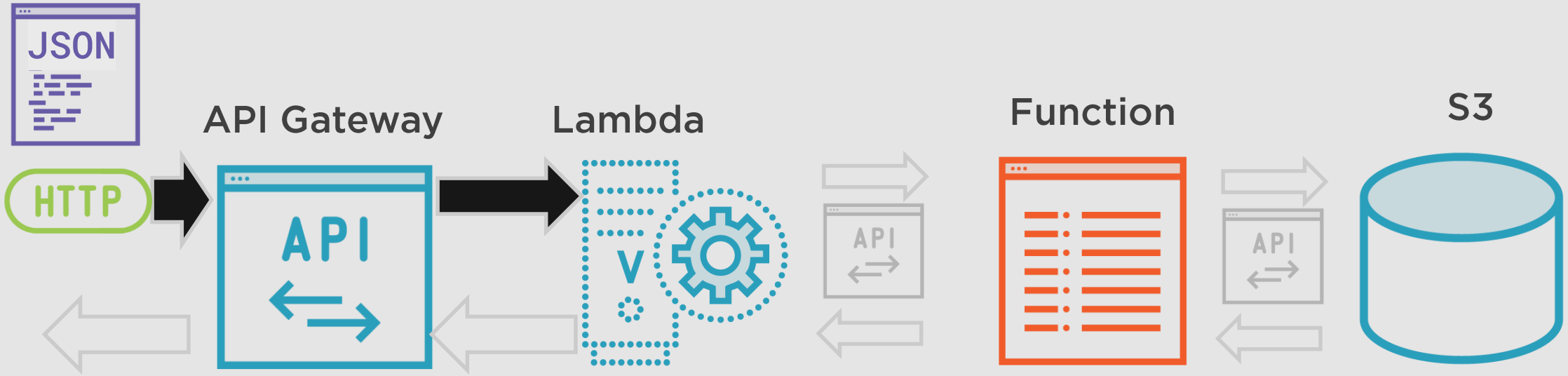

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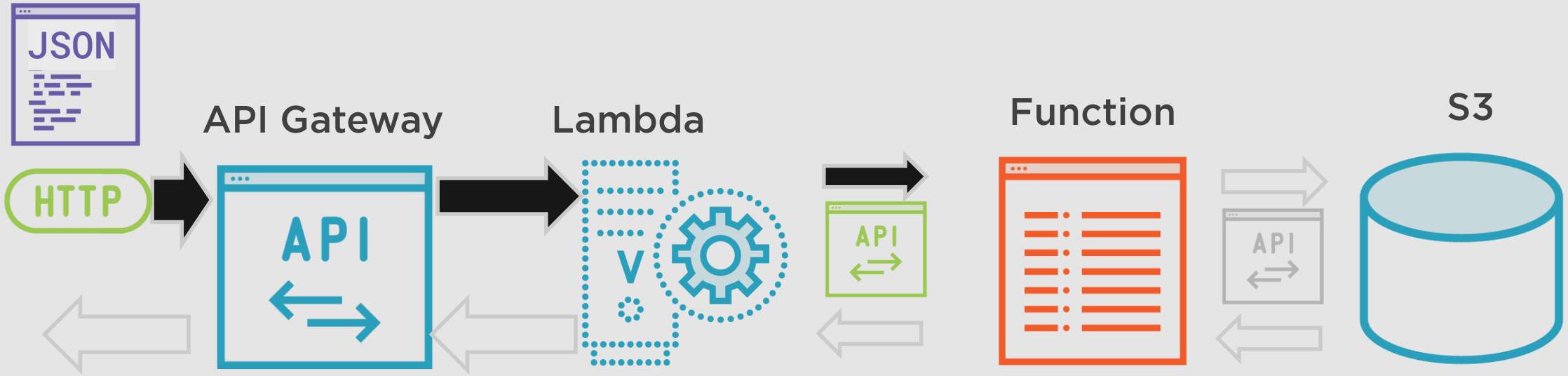

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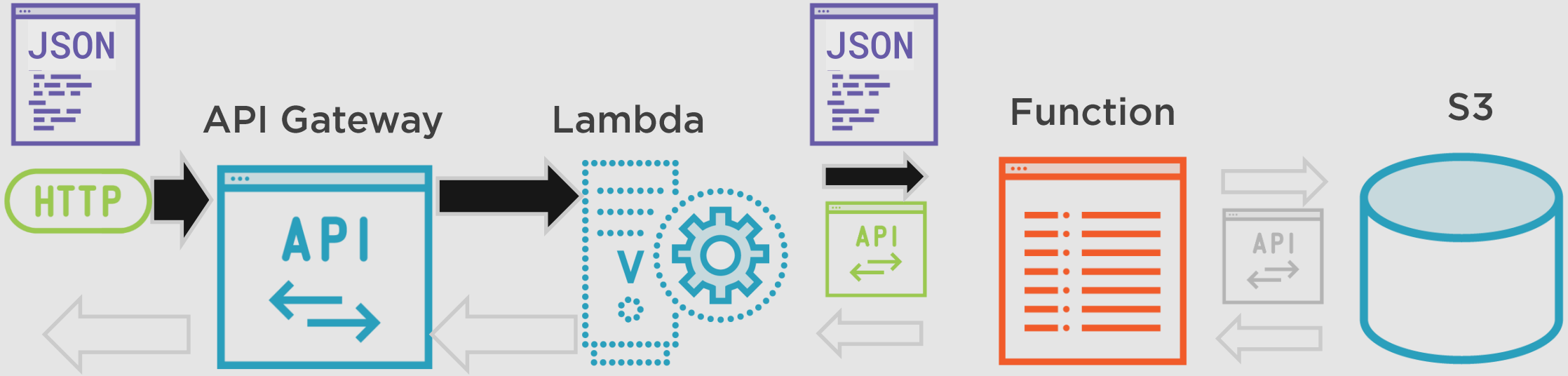

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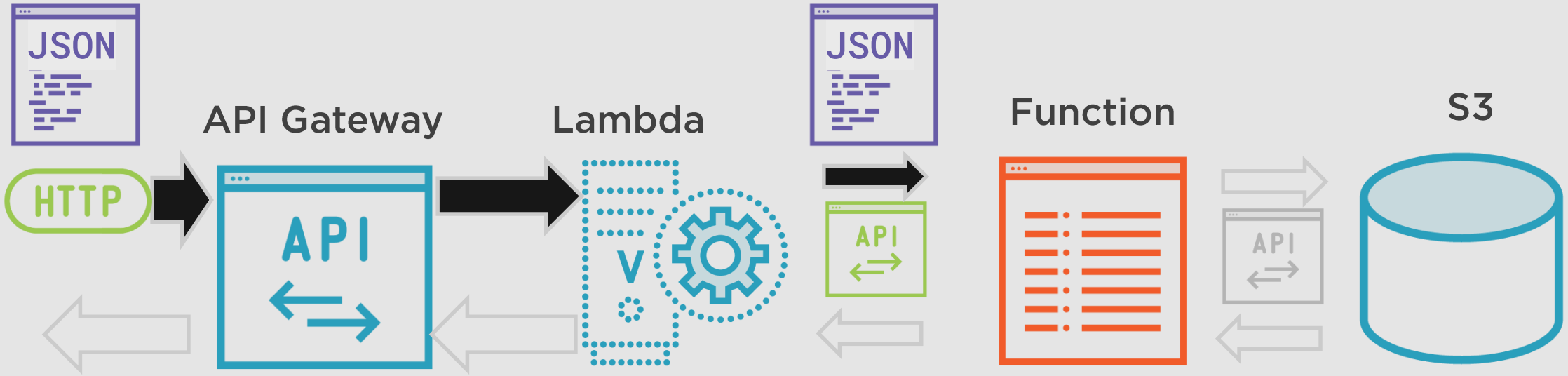

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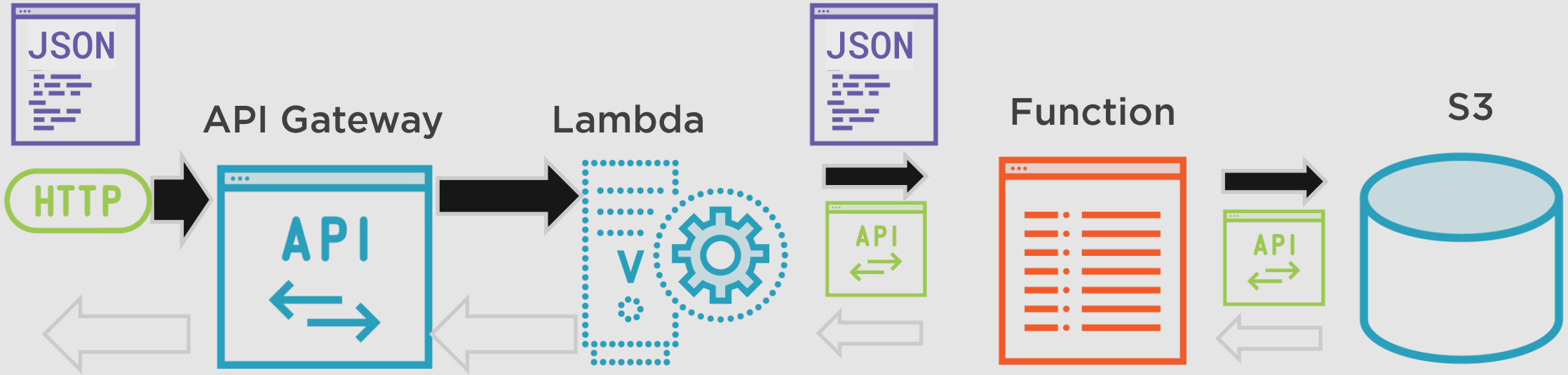

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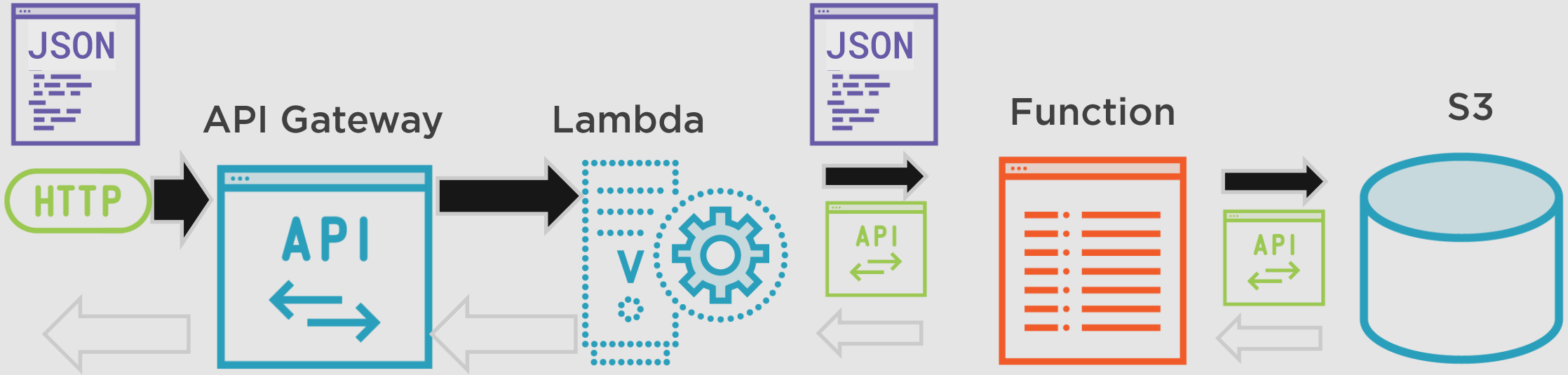

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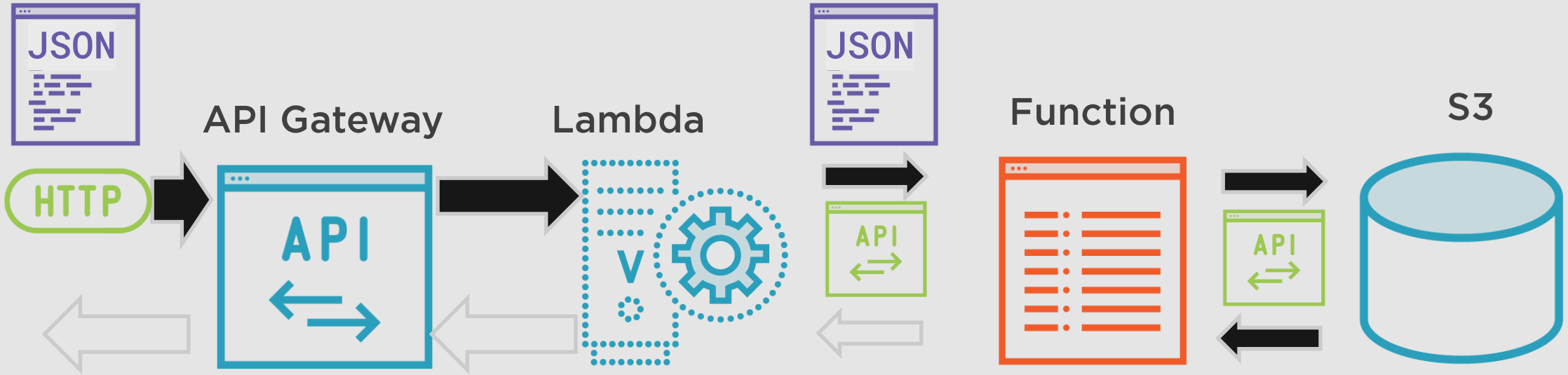

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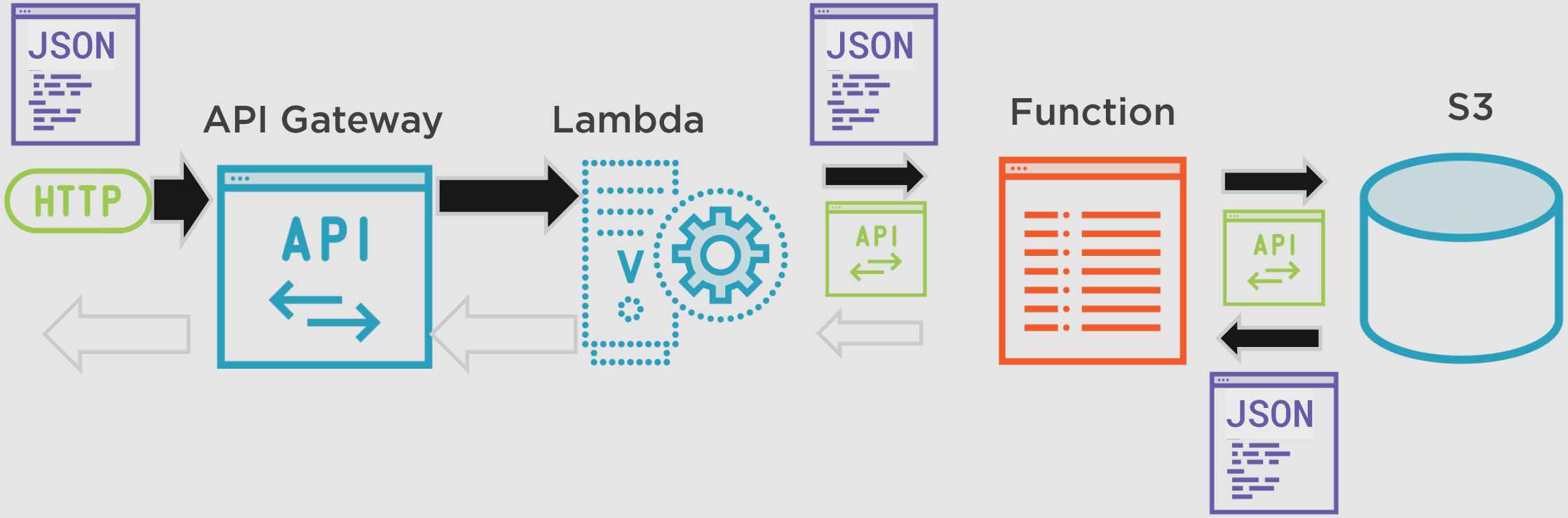

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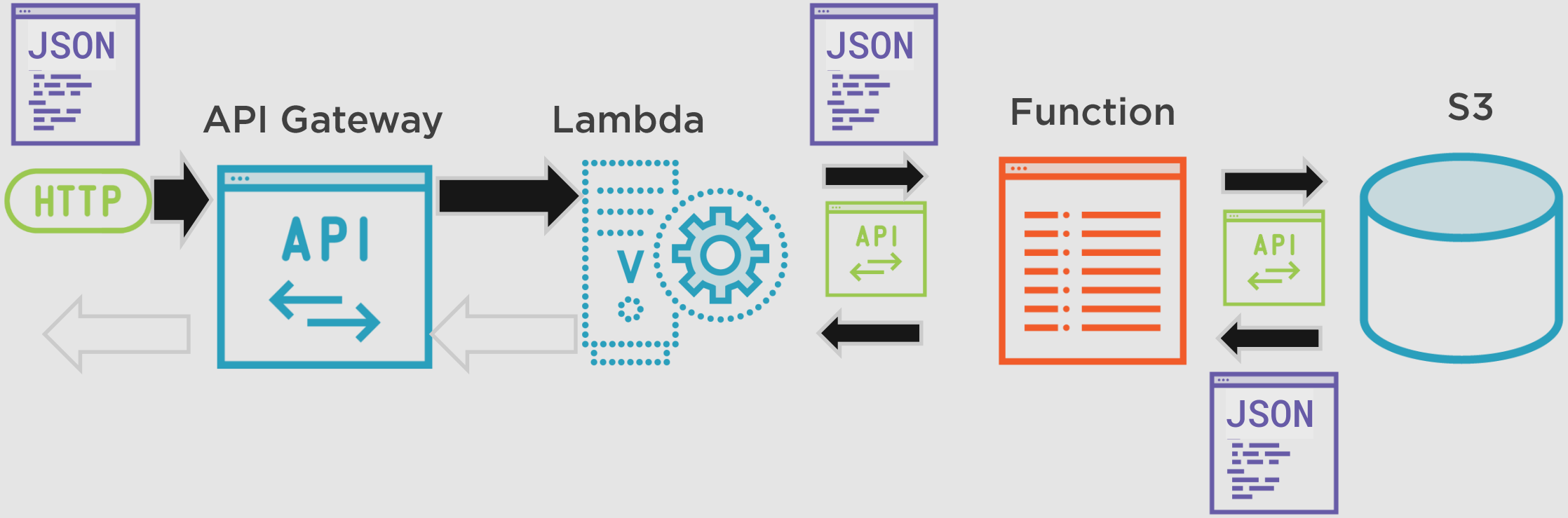

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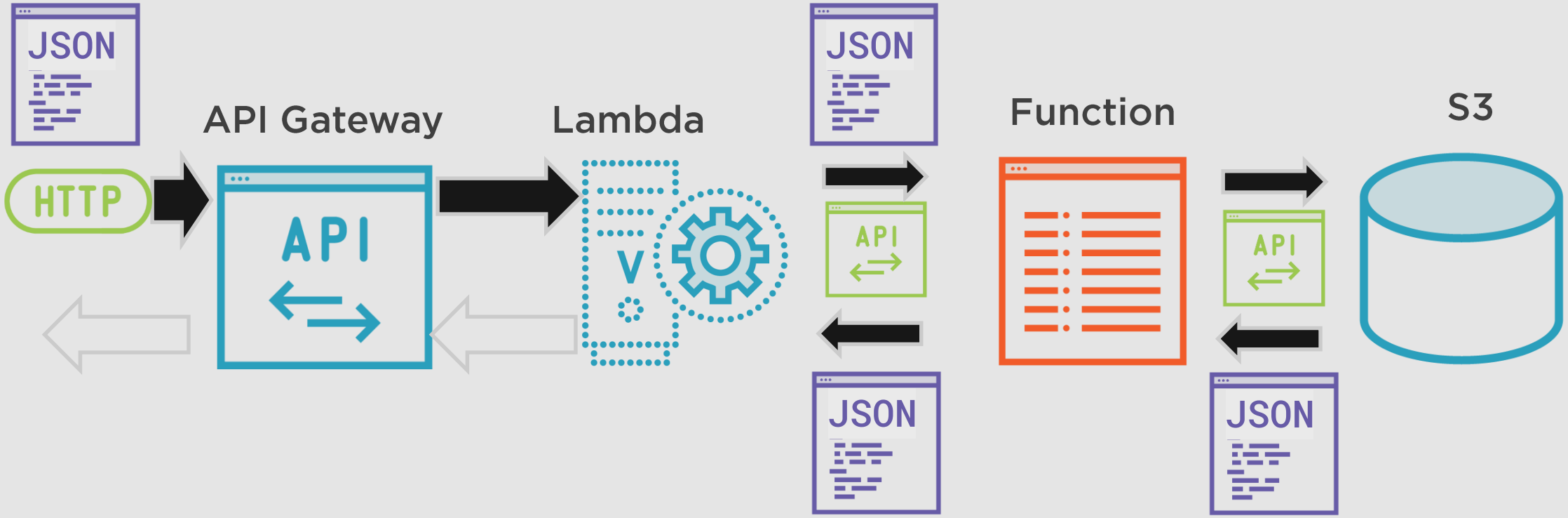

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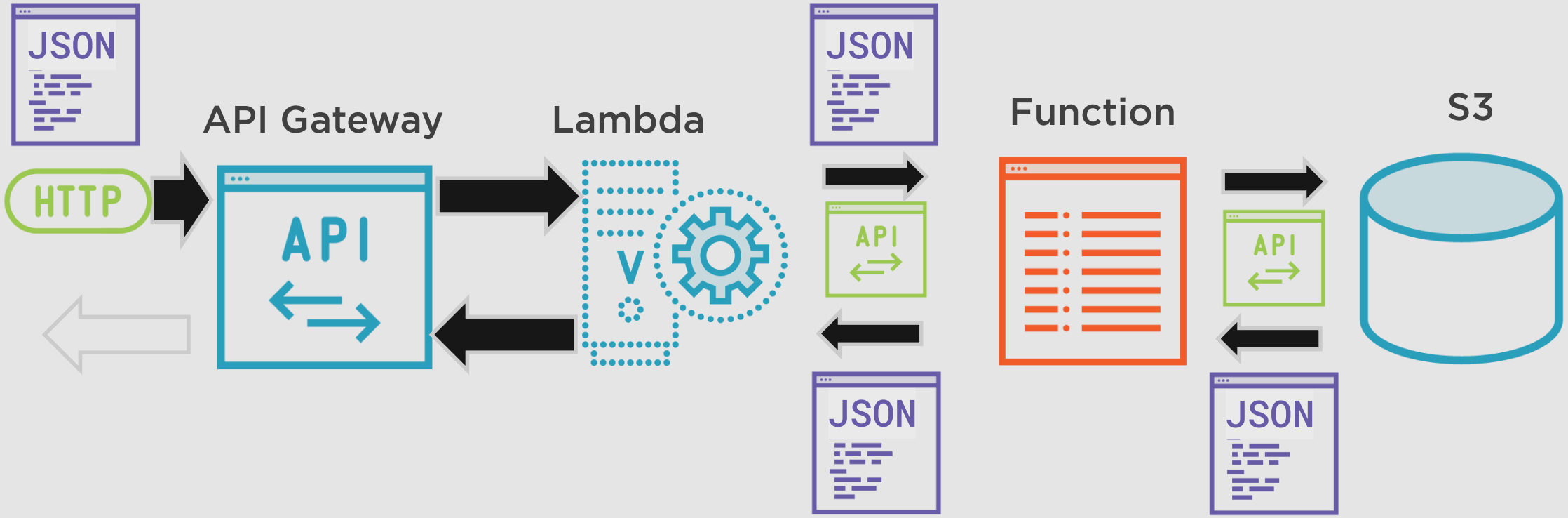

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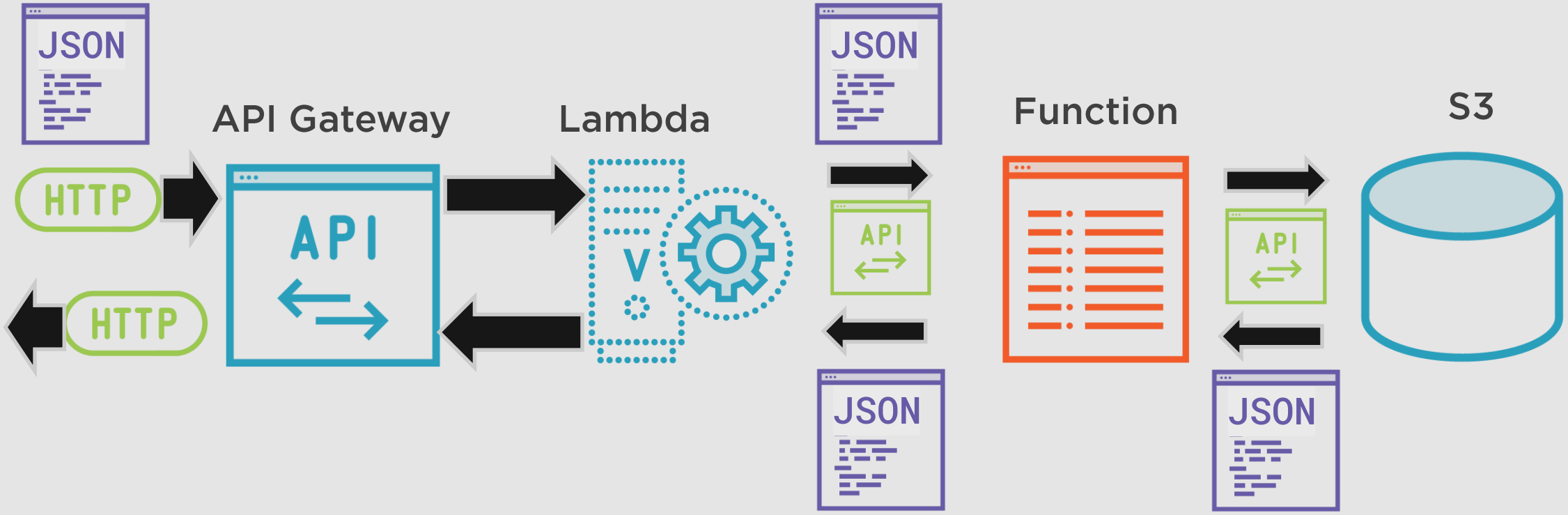

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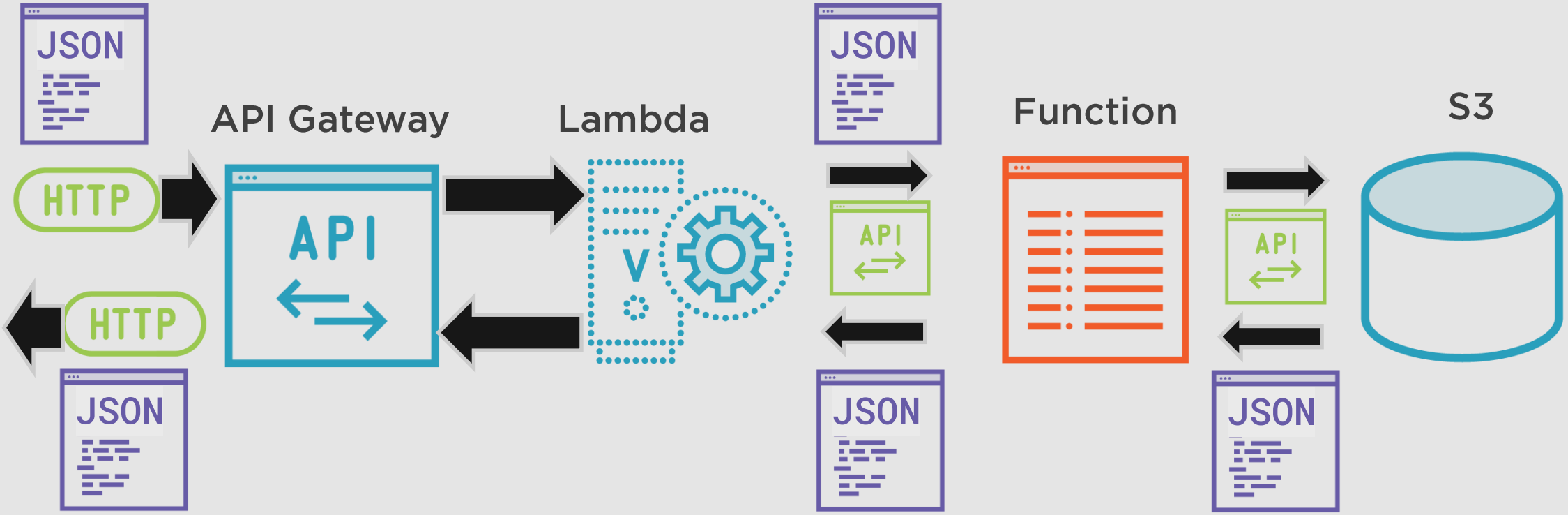

Demo

Upload a JSON file to S3

Explain the JSON grammar

Add the GSON library to project

JSON


```
[
    {
      "id": 100,
      "toolType":"Hammer",
      "brand":"Stanley",
      "name": "5oz Magnetic Tack Hammer",
      "count":20
    },
    {
      "id": 101,
      "toolType":"Hammer",
      "brand":"Wilton Bash",
      "name": "24oz Ball Peen",
      "count":27
    }
]
```

JSON

```
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      "name": "5oz Magnetic Tack Hammer",
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- JSON is an hierarchical data format of name-value pairs

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- **The default encoding is UTF-8 (ascii text)**

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- **The names, also called keys, are always string values enclosed in quotation marks.**

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- **Structures include:**

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- **Structures include:**
  - objects

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- **Structures include:**
  - objects
  - arrays

Java: JSON Fundamentals

by Richard Warburton

Demo

JSON to POJO mapping

Create a product POJO

JSON


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```

POJO

```
public class Product {

}
```

JSON

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POJO

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public class Product {

        int id;



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POJO

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public class Product {

        int id;
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      "brand":"Stanley",
      "name": "5oz Magnetic Tack Hammer",
      "count":20
    },
    {
      "id": 101,
      "toolType":"Hammer",
      "brand":"Wilton Bash",
      "name": "24oz Ball Peen",
      "count":27
    }
]
```

POJO

```
public class Product {

        int id;
        String toolType;
        String brand;
        String name;
        int count;

public int getId() {
        return id;
}
public void setId(int id) {
        this.id = id;
}
public String getToolType() {
        return toolType;
}
public void setToolType(String
toolType) {
```

Summary

- Learned about the JSON data format
- Installed GSON and uploaded JSON file
- Mapped JSON data storage to Product
- Modified and tested InventoryFindFunction reading JSON data from S3