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*For Westpac Interview*

*Design*

Project: Simple Weather Information Service

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Author | Create/Update Date | Comments |
| 0.1 | matthew.yiqing.zhu | 2024 05 01 | Initialization |

1. Introduction:

This document is for the project’s high-level design.

1. High-level view:

* This project is based on spring boot framework with a layered design.
* The controller layer work as web service endpoint to provide the service to the client.
* Service Layer handles the business logic before providing the result to the controller layer.
* The repository/DAO layer queries the data from the mocked database, and pre-process exceptional data (such as null data).
* Mocked In memory database creates recorded data then stores it in the memory handles the query from DAO and returns values.
* Other support classes like Pogo and Utils defined as data structure.

The above description can refer the layer diagram Figure1, and Figure 2. The sequence diagram Figure 3 provided similar logical

For the detailed design classed in each layer, please refer to the file “1.2 DetailedDesign.xlsx”

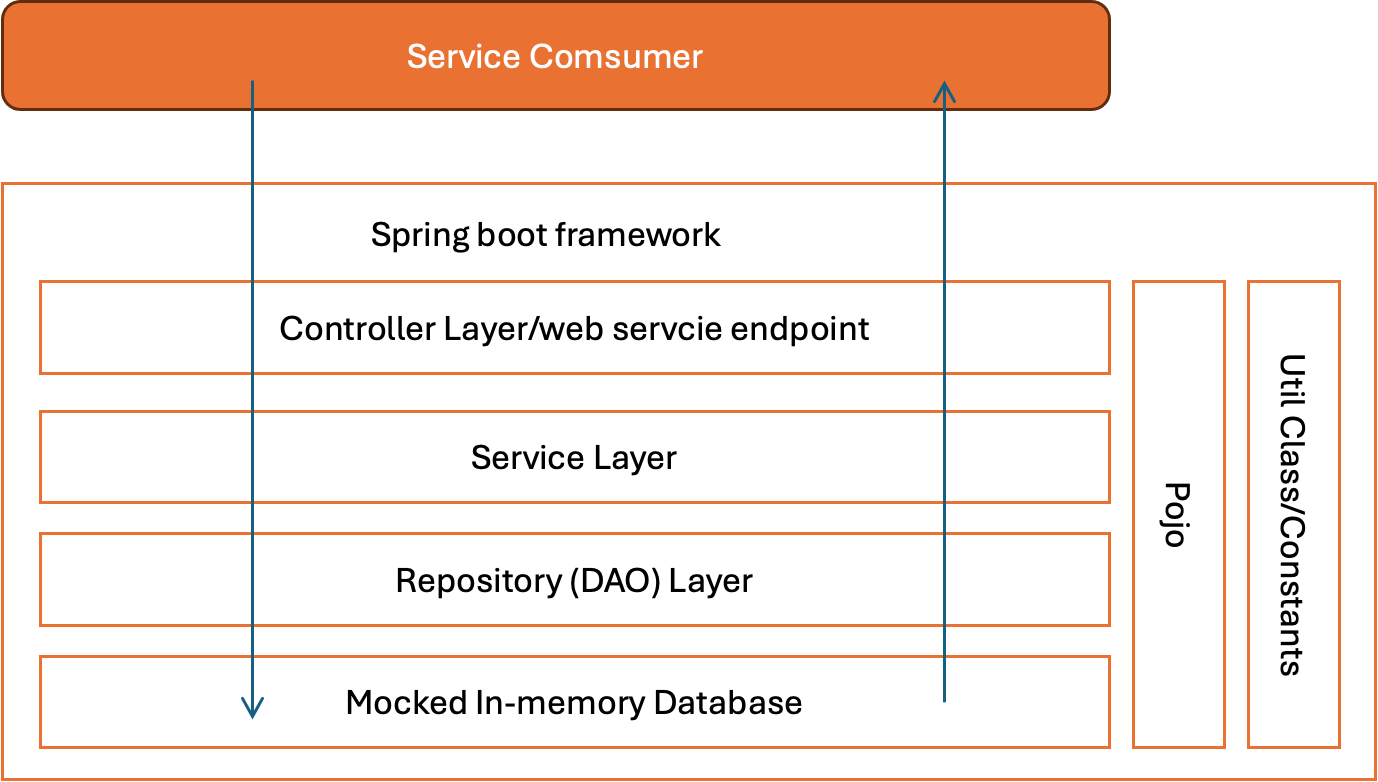


Figure 1

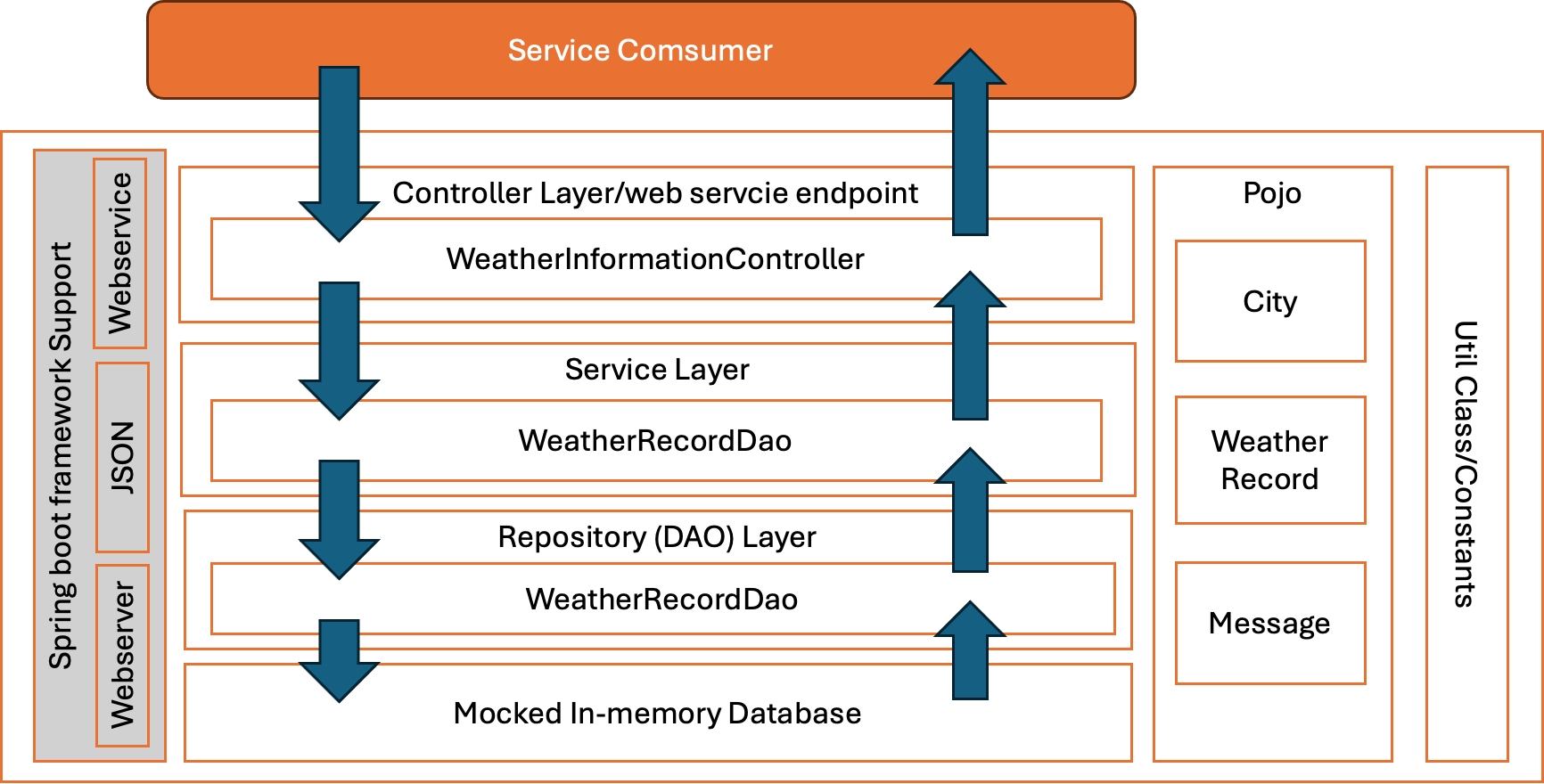


Figure 2

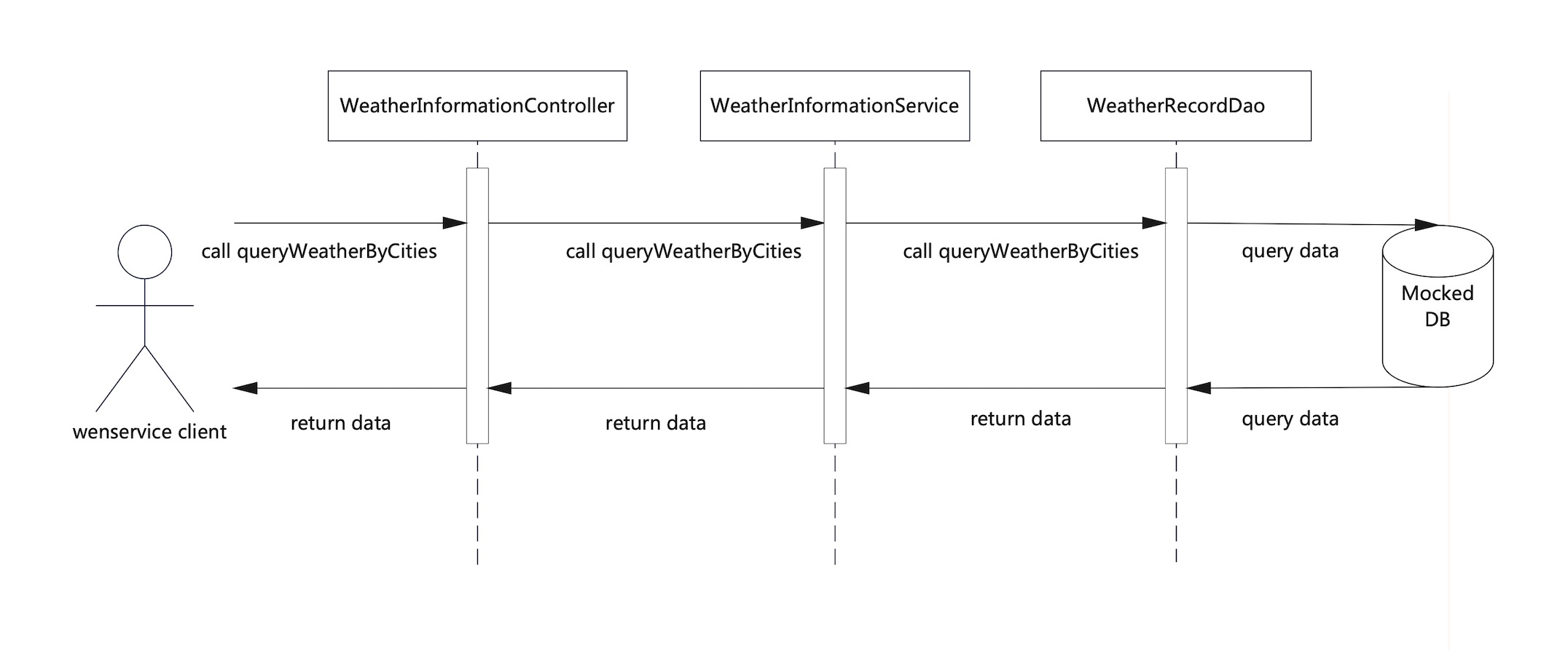


Figure 3

1. API INTERFACES

There are 3 interfaces for use, for details, please refer to document “2.1 API Manual.docx”

|  |  |  |
| --- | --- | --- |
| Name: | URI: | Description |
| Weather information query | /queryweatherbycities | Input cities information to query weather information |
| Available cities query | /availablecities | Getting the cities’ name list whose weather information exist in database |
| Manual query | / | Return the simple manual online |