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*For Westpac Interview*

*Requirement AND ASSUMPTION*

Project: Simple Weather Information Service

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

1. Introduction:

* This document is for the project’s requirements.

1. Requirements:

* Developing a basic Weather Information Service (preferably java) that provides current weather data for different cities (up to 3).
* Database is not used; the data are stored in memory.
* Create any API endpoints will need
* The request and response payload should be JSON, response example is following.

{

"city":"Auckland",

"temp":"24",

"unit":"C",

"date":"23/10/2023",

"weather":"cloudy",

...

}

* Meaningful error handling
* Write tests to support your code
* Provide clear documentation about code and API

1. Assumptions:

* The input will be the cities’ names, up to 3.
* Any exceptions show friendly to clients, and user experience concerned.
* Do not need security functions such as authorisation and encrypt
* Do not need thread safety.
* All return values will be treated as simple strings.
* Designing for future extension.
* All catched exceptions are thrown to the controller layer for handling and returning customized information. Beyond cached exceptions, only 400 and 404 exceptions are handled
* Do not need to modify data in the database in the run time
* Coding styles such as naming, and exception handle do not have limitation
* Assuming error handling based on the requirement side already
* Do not need DTO classes to handle DTO
* No specific method limitation for API calls
* Assuming the input/output log function is implemented already and not included in this project design phase, which under “co.nz.westpac.interview.simpleweatherinformationservice.logsystem”;