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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 caught exceptions are thrown to the controller layer for handling and returning customized information. Beyond caught exceptions, only “400 bad request”, “404 not found” and “405 unsupported method” 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”;