**Section 1**

|  |  |  |
| --- | --- | --- |
|  | New use case 1 | New use case 2 |
| Description | Users want to customize their own criteria to match their focus | Users want to receive the raw reviews about their restaurant in a range of time |
| Quality attributes | A method of which input is the string containing all new criteria separated by commas. | A method of which input is the string containing the range of time they want to filter separated by commas. |
| Constraints | * Each criterium must be one-word * No gaps between two criteria * Meaningful English words | * Users must stick to the provided date format, for instance yyyy-mm-dd * No gaps between two dates * Digits only |
| Architectural concerns | There should be an instruction / examples for the use of function | There should be an instruction / examples for the use of function |

**Section 2**

|  |  |  |
| --- | --- | --- |
|  | New use case 1 | New use case 2 |
| Description | Users want to customize their own criteria to match their focus | Users want to receive the raw reviews about their restaurant in a range of time |
| Solution | The attribute “criteria”’s default value is set to None.   * If users customize it, it will change accordingly * If users don’t use it, it will become a set of general criteria for restaurants.   Text  Description automatically generated | The entire dataset is filtered by restaurant id, starting date, and ending date. The filtered dataset will be saved in form of csv to the database system. It will be email to the users.  Text  Description automatically generated |

Current context diagram

Diagram

Description automatically generated

Updated context diagram

Diagram

Description automatically generated

Current component diagram

Diagram

Description automatically generated

Updated component diagram

Diagram

Description automatically generated

**Section 3**

Lesson 1: Different from other software developments, ML models take time to compute. However, the users cannot stay in front of the screen to wait for the result in an uncertain amount of time. Hence, the result would be sent to them later (by email, in our case)

Lesson 2: Some phases must be sequential (report), but others can be run in parallel (report and date-filtered reviews). Thus, the architecture can be redesigned to take advantage of asynchronous pipelines. For example, those that heavily rely on ML’s computation can be run before users choose to filter customers’ reviews.