**Challenge Name**: Customer Review Analysis

**Motivation**: A leading restaurant wants to roll out a new platform for offering analytical report on Customer Reviews and top rated/low rated dishes. Its aim to improve its sales, service quality, customer footfalls, customer experience.

The Restaurant has collaborated with multiple online review platforms to provide the customer review data. This data will be used to develop the system which analyses the mood of the customers and to categorize the factors impacting Restaurant’s revenue.

The platform will also provide the customer reviews and restaurant lookup feature for the end customers. The customers will also be able to feed in reviews & comments about a restaurant’s services & offerings.

**Deliverables**: The application/platform to be **API oriented** along with a support for Web & Mobile devices, there should be below mentioned functionalities support as well:

1. Three Types of primary users: Super Admin, Customer and Restaurant Admins, to be able to access the application.
2. Access information summarized below.

* Super Admins should be able to upload the bulk data, Add/Delete specific reviews and associated data inclusive of Comments, View/Edit restaurant details, View Restaurant’s performance, generating analytical reports on need basis.
* End Customer should be able to submit reviews, do search and lookup Restaurant details to find best restaurants.
* Restaurants owners/Admin should be able to view their ratings and customer provides reviews along with generating necessary reports.
* Restaurant owners can provide loyalty points to the regular customers. These points can be redeemed or transferred by the End User.

|  |  |  |  |
| --- | --- | --- | --- |
| Screens/User Type | Admin | Customers | Restaurant Admins |
| Bulk Data upload (Admin) | **Y** | **N** | **N** |
| Customers Reviews | **Y** | **Y** | **N** |
| Search for Restaurants(customers) | **Y** | **Y** | **N** |
| Restaurant Details(customers) | **Y** | **Y** | **N** |
| Restaurant Admins | **Y** | **N** | **Y** |

1. **Bulk Review Upload**: As Super admin, I should be able to bulk upload the unstructured Customer Review data, received from third Party, and Structured data for restaurants information.

**Bulk data upload you can do using UI screen or excel file upload**.

1. **User Review**: As End customer, I should be able to provide the reviews about the restaurant. The reviews to be given for below points.

* Food Ratings
* Ambience Ratings
* Customer Service
* Price Ratings
* Most Liked
* Additional Remarks

1. **Search for restaurants**: As End Customer, I should be able to list up the restaurants based on following search parameters.
   1. **Restaurant wise**

* Overall Ratings
* Food Ratings
* Ambience Ratings
* Value for Money
* Cuisines
* Specialty

1. **Restaurant’s Detail**: As End User, I should be able to look up the Hotel details and the services they provide.
2. **Restaurant Admins:** As a restaurant’s owner/admin, I should be able to analyses the performance based on Customer ratings. Also, I should be able to view my rankings and things which can be improved as per the Customers.
   1. **Loyalty points for the regular end customers which can be redeemed or transferred to any other end customers.**

Bonus: Use D3.js to represent the Ratings, likes and dislikes in graphical formats. (<https://d3js.org/)>

**Non-Functional features:** Scalability, Usability**,** Availability, Cloud Native, Performance.

**DataSets**: Review will be provided as text and csv files.



To Hackers:

* Use the raw data provided for this challenge along with your own data (created with bulk upload)
* Create your schemas considering all the parameters provided

(**For Mentor’s Observation)**

* Schema Designs
* UI Design
* Approach towards bonus point.
* User Access Management.