**An Intelligent Approach for Food Recipe Rating Prediction Using Machine Learning**

In recent times, there are many studies and systems which deal with restaurant rating or individual food rating but rating a recipe using Artificial Intelligence is rare. This study aims to rate recipes based on different attributes using different Machine Learning algorithms. It compares the performance of different classifiers in rating a recipe based on different performance criterion. This can be economically beneficial to restaurants by helping them improve their recipes and getting more customers. It can also be used in a more personal level to improve household recipes and for the customers of restaurants to decide which restaurant is better for a specific dish based on how good their recipe is.

**EXISTING SYSTEM:**

Food tasting and rating is becoming more and more popular everywhere which is clearly visible in different online and social media platforms. Food quality can be assessed from different points of view. In this method, we calculate the sentiment score by evaluating the ratio of Count of Positive and negative points of star ratings and those results are not up to the mark and some cases it can be re-written by the company’s by themselves .

**DISADVANTAGES OF EXISTING SYSTEM:**

* irrelevant results are more present in the results .
* sentiment of the review are not reaching the truth.

**Algorithm**: knn

**PROPOSED SYSTEM:**

If someone is interested in a particular dish or recipe it becomes difficult for them to check how good it is. Different restaurants may also make the same dish using different recipes. So this system can help them see how their dish is rated compared to others. after discarding unnecessary and irrelevant review in the previous steps, scraping data, dropping missing observations and transforming it into a proper data-set, the total data was divided into 2 sets, keeping 80% data in the training set and 20% data in the test set. After that, different machine learning algorithms i.e Naive Bayes, Logistic Regression, K Nearest Neighbour, Decision Tree, Random Forest, Support vector Machine were applied to find training and testing accuracy. It compares the performance of different classifiers in rating a recipe based on different performance criterion.

**ADVANTAGES OF PROPOSED SYSTEM:**

* applying deep learning on food science. It focuses on applying deep learning as an advanced data mining tool for food sensory research. Their survey indicates that deep learning in food science outperforms conventional machine learning algorithms
* The ML algorithms are used to find the most important predictor that separates obese subjects from the control.

**Algorithm**: Naive Bayes, Logistic Regression, Decision Tree, Random Forest, Support vector Machine.

**SYSTEM REQUIREMENTS:**

**HARDWARE REQUIREMENTS:**

* System : Intel Core i3.
* Hard Disk : 1TB.
* Monitor : 15’’ LED
* Input Devices : Keyboard, Mouse
* Ram : 8GB.

**SOFTWARE REQUIREMENTS:**

* Operating system : Windows 10.
* Coding Language : Python
* Tool : PyCharm, Visual Studio Code
* Database : SQLite

**REFERENCES:**

[Ismam Hussain Khan](https://ieeexplore.ieee.org/author/37088861917); [Md Habib Ullah Khan](https://ieeexplore.ieee.org/author/37088862207); [Md Mamun Howlader](https://ieeexplore.ieee.org/author/37088400346), ‘**An Intelligent Approach for Food Recipe Rating Prediction Using MachineLearning**’, **Date of Conference:**06-07 April 2021**Date Added toIEEE *Xplore*:**11May 2021**Information: Electronic ISBN:**978-1-6654-1511-8

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