Computational Gastronomy

Coding Assignment 1

You may use Python and Jupitor Notebook as an IDE for completing the assignments and documentation. **Note:** You are responsible for the backup of data as well as results, which will be used for evaluation.

- 1. Find **five recipes** that you like the most from any of the online repositories.
 - (a) Extract and represent the information from them in the traditional form (ingredients and cooking instructions); example below. [5]

| _ | RECIPE |
|----------------------------|---|
| п | NGREDIENTS SECTION |
| 5 5 1 1 1 2 | 00gsms, potato, sliced 0gms, capsicum, finely chopped 0 gms Onions, chopped 00ml groundnut oil 0gms, cumin, crushed 0gms, turmeric 0gms, chilly power o taste, salt |
| c | OOKING INSTRUCTIONS |
| 3 | |

| | (3) | r - a |
|----|---|-------|
| | (c) In general, as well as specific to each recipe, comment on which aspects of the recipes | |
| | being lost in the process of coarse-graining the recipe data? | [5] |
| | (d) How could one possibly mitigate this to extract the most details from the recipes? | [5] |
| 2. | Obtain the data of recipes from Kaggle and analyze it for the following. | |
| | (a) Find number of recipes, number of unique ingredients, number of cuisines. | [3] |
| | (b) Plot the statistics (bar plot) of number of recipes for each cuisine. | [2] |
| | | [10] |
| | (d) Plot cumulative distribution of recipe size and interpret . | [5] |
| 3. | For the <u>data of recipes from Kaggle</u> : | |
| | (a) Plot the frequency-rank distribution for all the recipes and interpret. | [3] |
| | (b) List the 10 most popular ingredients in the recipes. | [2] |
| | (c) Plot the ingredient-rank distribution for each of the cuisines and list the most pop | ular |
| | ingredients for each cuisine. | [10] |
| | (d) What is your interpretation of the results? | [5] |

(b) Further, store the recipes in the form of a (Recipe ID)—(Ingredient Name) form.

[5]