Food-AI Intern Assignment

You are provided with a file **paneer_recipes.json** containing ingredient details for four paneer-based dishes. For each dish, the file specifies the ingredient names and their corresponding quantities across serving sizes **1 to 4**, where the serving size refers to the number of people the recipe can serve.

Tasks

Quantity Scaling

- Develop **multiple approaches** (at least 2) to estimate the ingredient quantities for any serving size, using ingredient data from exactly **two different serving sizes** provided in the JSON file.
    - Example: Use ingredient quantities from serving sizes 2 and 3 to estimate quantities for serving sizes 1 and 4.
- Your methods should **generalize well**: i.e., be able to compute ingredient amounts for *any* serving size (not limited to 1–4) for any recipe, given quantities for two known serving sizes.

Evaluation

- Propose and define **evaluation metrics (preferably more than 1)** to measure how well your scaling methods predict ingredient quantities.
- Suggested evaluation procedure:
    1. For each of the four dishes, randomly select any two serving sizes.
    2. Use their ingredient quantities to estimate the quantities for the remaining serving sizes.
    3. Compare predicted quantities with the actual values from the JSON file.
    4. Report the differences using your chosen metrics.

Submission instructions:

1. **Code**
    - Python code for all scaling approaches.
    - Scripts for running evaluations and reporting results with paneer_recipes.json as input
2. **Report**
    - Detailed description of each scaling approach.
    - Reasoning behind the chosen evaluation metrics.
    - Results of your evaluation.
    - Your conclusion: which approach works best, and why.
3. **Submission**
    - Upload your code and report to Google Drive and Share the public link.

paneer_recipes.json can be accessed via:
https://drive.google.com/file/d/1OEzhykUUrSQza9eb9tXOJsw6yiDMvfLp/view?usp=drive_link