Example 1: simple case

[AGENT] Please enter what you ate in this meal (e.g., 'I ate 2 eggs

and a bowl of rice'):

1 boiled egg

[DEBUG] Model response for parsing: [

{"food": "egg, whole, cooked, hard-boiled", "amount": "1 large (50 g)"}

]

[AGENT] Nutrition analysis and score:

Here's the nutrition score and explanation for your hard-boiled egg

meal:

\*\*Score: 8/10\*\*

### \*\*Pros:\*\*

- \*\*High-quality protein (6.3g):\*\* Excellent for muscle repair and

satiety.

- \*\*Healthy fats (5.3g):\*\* Includes essential fatty acids and

fat-soluble vitamins (A, D, E, K).

- \*\*Low carb (0.6g):\*\* Great for low-carb or keto diets.

- \*\*Nutrient-dense:\*\* Rich in choline, selenium, and B vitamins.

### \*\*Cons:\*\*

- \*\*No fiber (0g):\*\* Lacks dietary fiber, which aids digestion.

- \*\*High cholesterol (~186mg):\*\* May be a concern for some

individuals (though dietary cholesterol impact varies).

- \*\*Moderate calorie density (78 kcal):\*\* Could add up quickly if

eating multiple eggs without other balanced foods.

### \*\*Verdict:\*\*

A highly nutritious food, especially for protein and healthy fats, but

best paired with fiber-rich foods (vegetables, whole grains) for a more

balanced meal.

Example 2: Multiple foods + clear quantities

[AGENT] Please enter what you ate in this meal (e.g., 'I ate 2 eggs

and a bowl of rice'):

I had 2 scrambled eggs, 150g grilled chicken breast, and 1 cup of

steamed broccoli

[DEBUG] Model response for parsing: [

{"food": "egg, whole, raw", "amount": "2 large (100 g)"},

{"food": "chicken breast, boneless, skinless, raw", "amount": "150 g"},

{"food": "broccoli, raw", "amount": "1 cup chopped (91 g)"}

]

[AGENT] Nutrition analysis and score:

Here's the overall nutrition score and explanation for your meal:

### \*\*Nutrition Score: 9/10\*\*

#### \*\*Breakdown:\*\*

- \*\*Total Calories:\*\* 387 kcal

- \*\*Protein:\*\* 58.2g (excellent)

- \*\*Fat:\*\* 12.8g (healthy balance)

- \*\*Carbohydrates:\*\* 11.2g (mostly from broccoli)

- \*\*Fiber:\*\* 5.1g (good)

#### \*\*Pros:\*\*

- \*\*High-quality protein:\*\* Supports muscle maintenance and satiety

- \*\*Low saturated fat:\*\* Heart-healthy profile

- \*\*Rich in micronutrients:\*\* Vitamins A, C, K, B6, B12, and minerals

- \*\*Good fiber content:\*\* From broccoli

#### \*\*Improvements:\*\*

- Add healthy fat source (e.g., avocado, olive oil)

- Include whole grains for complex carbohydrates

\*\*Overall:\*\* A nutritionally balanced meal with high protein and micronutrients.

Example 3: Vague quantity

[AGENT] Please enter what you ate in this meal (e.g., 'I ate 2 eggs

and a bowl of rice'):

A bowl of fried rice and a few slices of cucumber

[DEBUG] Model response for parsing: [

{"food": "fried rice", "amount": "1 bowl (250 g)"},

{"food": "cucumber, raw", "amount": "3 slices (30 g)"}

]

[AGENT] Nutrition analysis and score:

Here's the overall nutrition score and explanation for your meal:

\*\*Score: 5/10\*\*

### Breakdown:

- \*\*Calories (325 kcal total):\*\* Moderate energy density

- \*\*Macronutrients:\*\*

- \*\*Carbohydrates (58g):\*\* Mostly refined carbs from rice

- \*\*Protein (7g):\*\* Below recommended level

- \*\*Fat (5g):\*\* Moderate but could include healthier options

- \*\*Fiber (2g):\*\* Below recommended amount

### Why 5/10?

- \*\*Pros:\*\* Contains vegetables (cucumber), low saturated fat

- \*\*Cons:\*\* Low protein/fiber, unbalanced macros, high refined carbs

- \*\*Suggestions:\*\* Add lean protein (chicken, tofu), increase vegetable content, use brown rice

Example 4: combo

[AGENT] Please enter what you ate in this meal (e.g., 'I ate 2 eggs

and a bowl of rice'):

A McDonald's Big Mac combo with medium fries and Coke

[DEBUG] Model response for parsing: [

{"food": "Big Mac sandwich", "amount": "1 item (219 g)"},

{"food": "French fries, fast food", "amount": "1 medium serving (117 g)"},

{"food": "Coca-Cola, regular", "amount": "1 medium cup (21 fl oz)"}

]

[AGENT] Nutrition analysis and score:

Here's the overall nutrition score and explanation for this meal:

\*\*Score: 3/10\*\*

### Explanation:

- \*\*High Calories (1080 kcal):\*\* Exceeds typical meal recommendations

- \*\*Macronutrient imbalance:\*\*

- Protein (28g): Moderate but insufficient for calorie load

- Fat (49g): High, with significant saturated fat

- Carbohydrates (144g): Mostly refined carbs and sugars

- \*\*Low Fiber (7g):\*\* Below recommended amount

- \*\*High Sodium (1450mg):\*\* Exceeds daily limit in single meal

- \*\*Added Sugars (64g):\*\* Far exceeds daily recommendation

\*\*Verdict:\*\* Nutritionally unbalanced meal high in calories, sodium, saturated fat, and added sugars. Occasional consumption acceptable, but not recommended regularly.

Example 5: Desserts and drinks

[AGENT] Please enter what you ate in this meal (e.g., 'I ate 2 eggs

and a bowl of rice'):

One slice of chocolate cake and a cup of green tea

[DEBUG] Model response for parsing: [

{"food": "chocolate cake, commercially prepared", "amount": "1 slice (80 g)"},

{"food": "green tea, brewed", "amount": "1 cup (240 ml)"}

]

[AGENT] Nutrition analysis and score:

Here's the nutrition score and explanation for your meal:

\*\*Score: 4/10\*\*

### Explanation:

- \*\*Calories (352 kcal):\*\* Moderate but nutrient-poor

- \*\*Macronutrients:\*\*

- Protein (5g): Insufficient

- Fat (15g): Moderate, includes saturated fats

- Carbohydrates (55g): Primarily refined carbs and sugars

- \*\*Fiber (2g):\*\* Below recommendation

- \*\*Added Sugars (35g):\*\* High for single item

\*\*Pros:\*\* Green tea provides antioxidants with minimal calories

\*\*Cons:\*\* High in added sugars, low in protein and fiber, minimal micronutrients

\*\*Suggestion:\*\* Pair with protein/fiber source (Greek yogurt, nuts) to improve balance

Pros and cons

\*\*Strengths\*\*

1. \*\*Strong structured parsing capability\*\*

- Accurately splits inputs into multiple food items with quantities

- Output JSON format is consistent

- Handles vague descriptions effectively

2. \*\*Reasonable quantity estimation\*\*

- "few slices of cucumber" → "3 slices (30 g)"

- "medium fries" → "1 medium serving (117 g)"

3. \*\*Comprehensive nutritional analysis\*\*

- Provides balanced pros/cons evaluation

- Includes practical improvement suggestions

- Covers both macro and micronutrients

4. \*\*Wide scenario coverage\*\*

- Handles basic foods, combination meals, vague descriptions

- Processes fast-food, desserts, and beverages

5. \*\*User-friendly output\*\*

- Clear scoring system (0-10)

- Actionable health advice

- Structured format enhances readability

\*\*Weaknesses / Areas for Improvement\*\*

1. \*\*Nutrition data accuracy\*\*

- Inconsistencies in USDA data matching (e.g., egg carbs)

- Need better validation of portion sizes

2. \*\*Combo meal completeness\*\*

- Total calculations occasionally miss components

- Requires improved handling of prepared foods

3. \*\*Uncertainty indicators\*\*

- Should flag when using estimated data

- Add confidence levels for portion sizes

4. \*\*Scoring methodology\*\*

- Implement standardized scoring algorithm

- Document calculation methodology