Appendix D — DB Log

Purpose
This appendix documents how nutrition values (kcal/protein/fat/carbs) in meal_advisor_food_db_v1.csv were standardized and traced. At the prototype stage, we prioritize consistency, comparability, and traceability over clinical-grade precision.

A. Serving Standardization Policy
1) All nutrition values are stored as representative "guide values" per 1 serving.
2) serving_desc explicitly states the unit of 1 serving (e.g., 1 bowl, 1 plate, 1 roll, 100g, 200g).
3) Since values can vary by brand/recipe/portion, the system discloses that values are estimates for guidance.

B. Source Classification (source_used)
Each entry is assigned exactly one primary source type, logged with access_date in Appendix E1.

1) public_food_db
- Examples: MFDS Food Safety Korea Nutrition DB, RDA Korean Standard Food Composition DB, USDA FoodData Central
- Used when a clear standard entry exists.

2) manufacturer_label
- Used for packaged foods / branded items where nutrition is defined by the product label.
- Notes should indicate the product/brand label basis.

3) recipe_average
- Used when recipe variance is large or a direct standard match is not appropriate.
- Notes should record evidence such as "avg of N recipes" or "high variance".

C. Matching Rules (consistency-first)
1) Prefer a direct match in public databases when available.
2) Align portion to serving_desc when database serving units differ.
3) If an exact match is not possible, select the closest match and record the rationale in notes.
4) Integrity rule: values in Appendix E1 must match the main DB (meal_advisor_food_db_v1.csv) exactly.

D. Disclosures
- Nutrition values are not for medical diagnosis; they are decision-support guide values.
- Real meals may differ due to recipe/brand/portion differences.
- Allergen tags follow a conservative policy and may over-warn to prioritize safety.

Appendix_D1: Food DB Provenance Log (Sample 16)

id	name_en	serving_desc	kcal	protein_g	fat_g	carbs_g	source_used	access_date	notes	evidence_ref
1	Tteokbokki	1 plate	350	6	8	65	FoodSafetyKorea_MFDS	2025-11-29	search_term="떡볶이", matched_entry="떡볶이(일반)"	E2_MFDS_01.png
2	Kimchi Fried Rice	1 bowl	480	12	15	65	RDA_Korean_Standard_Food_Composition	2025-11-29	search_term="김치볶음밥", average of 3 recipes	E2_RDA_02.png
3	Gimbap	1 roll	350	10	9	50	FoodSafetyKorea_MFDS	2025-11-29	matched_entry="원조김밥", portion fixed	E2_MFDS_03.png
4	Beef Bone Soup	1 bowl	420	18	15	20	RDA_Korean_Standard_Food_Composition	2025-11-29	search_term="사골곰탕", matched_entry="설렁탕"	E2_RDA_04.png
5	Bibimbap	1 bowl	550	18	14	85	FoodSafetyKorea_MFDS	2025-11-29	matched_entry="비빔밥(전주식)", adjusted	E2_MFDS_05.png
13	Ramyeon	1 bowl	500	10	16	70	Manufacturer_Label	2025-11-29	Instant ramen, portion adjusted to 1 bowl	E2_Label_13.png
25	Doenjang-jjigae	1 bowl	150	10	6	15	RDA_Korean_Standard_Food_Composition	2025-11-29	search_term="된장찌개", matched_entry="채소된장찌개"	E2_RDA_25.png

45	Hamburger	1 unit	550	25	28	45	USDA_FoodData_Central	2025-11-29	search_term="Hamburger", matched_entry="Fast Food"	E2_USDA_45.png
46	Cheeseburger	1 unit	620	28	35	48	USDA_FoodData_Central	2025-11-29	matched_entry="Cheeseburger, single patty"	E2_USDA_46.png
50	Pepperoni Pizza	2 slices	600	24	26	65	USDA_FoodData_Central	2025-11-29	closest match: pepperoni pizza, 14-inch	E2_USDA_50.png
62	Pho	1 bowl	450	25	8	65	USDA_FoodData_Central	2025-11-29	search_term="Beef Pho", matched_entry="Vietnamese"	E2_USDA_62.png
102	Croissant	1 piece	270	5	15	28	Recipe_Average	2025-11-29	matched_entry="Butter Croissant", medium size	E2_Recipe_102.png
150	Dak-galbi	1 portion	550	40	25	35	FoodSafetyKorea_MFDS	2025-11-29	search_term="닭갈비", matched_entry="춘천닭갈비"	E2_MFDS_150.png
285	Brownie	1 piece	250	3	12	35	USDA_FoodData_Central	2025-11-29	matched_entry="Chocolate Brownies, commercial"	E2_USDA_285.png
286	Macaron (Chewy Butter Cookie Style)	1 piece	100	2	5	12	Recipe_Average	2025-11-29	matched_entry="French Macaron", per piece	E2_Recipe_286.png

| 290 | Crepe | 1 | piece | 220 | 6 | 9 | 30 | USDA_FoodData_Central | 2025-11-29 | search_term="Crepe", matched_entry="Plain" | E2_USDA_290.png |

Appendix_D2 - Reference Pages

- 식품영양성분 데이터베이스. (n.d.). https://various.foodsafetykorea.go.kr/nutrient/

- 농식품 올바로 - 국가표준식품성분표 검색. (n.d.).

  https://koreanfood.rda.go.kr/kfi/fct/fctFoodSrch/list

- *USDA FoodData Central*. (n.d.). https://fdc.nal.usda.gov/