

Voice intent Categories

1. Meal Planning Intent

Goal: The user is looking for food or meal recommendations.

Example voice command:

- "What should I eat for breakfast?"
- "Make me a healthy dinner."
- "Give me a low-calorie meal plan."

System action: Trigger rule-based meal planning generator

2. Allergy Intent

Goal: The user brings up any restrictions or allergies.

Example voice command:

- "I'm allergic to mango."
- "Please, no dairy."
- "I can't eat seafood."

System action: Filter meals according to restrictions and allergies.

3. Health Condition Intent

Goal: The user is referring to a medical or health issue.

Example voice command:

- "I have diabetes,"
- "Food for high blood pressure,"
- "Low cholesterol meals"

System action: Use the health-condition rule table (cholesterol, diabetes, and hypertension).

4. Calorie & Nutrition Query Intent

Goal: The user queries nutrients or calories.

Example voice command:

- "How many calories is this?"
- "How much protein is there?"
- "Is there a lot of sugar in this meal?"

System action: Provide nutritional information or a calorie estimate.

5. Food Information Intent

Goal: The user desires a general understanding of food.

Example voice command:

- "What foods contain a lot of fiber?"
- "What does a balanced diet entail?"

System action: LLM-based justification (informational response)

6. Personal Preference Intent

Goal: The user shares their likes and dislikes.

Example voice command:

- "I don't like spicy food,"
- "I prefer vegetarian meals,"
- "I want soft food."

System action: Modify meal suggestions according to personal preferences

7. Budget Intent

Goal: The user brings up affordability or money.

Example voice command:

- "Cheap meals please."
- "Budget-friendly diet"

System action: Make affordable meals and backup plans a priority.

8. System / Help Intent

Goal: The user wants to know how the system operates.

Example voice command:

- "What can you do?"
- "Help me choose food."

System action: Describe features and assist the user.

9. Fallback or Unknown Intent

Unsupported or unclear voice input

Example voice command:

- "Hmm... something healthy, I guess."
- Speech that is loud or incomplete

System action: Ask a clarifying question or offer recommendations for safe defaults.

The voice intent categories offer a clear framework for understanding user speech and directing requests to the relevant rule-based logic or artificial intelligence. This architecture enhances system accuracy, allows for customization, and ensures that NutriHelp can react efficiently even in situations where user input is unclear or brief.