ELEMENTS OF AIML
ASSIGNMENT 1

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Objective:

The objective of this assignment was to create a dataset on a real-world topic of interest, helping to understand dataset creation, structuring, and preparation – which are essential skills for future AI/ML projects.

Topic Chosen:

Food Dataset

I chose the topic of food because eating habits, nutrition, and dietary analysis are highly relevant in our daily lives. Food datasets are widely used in AI/ML applications such as health monitoring apps, personalized diet recommendations, calorie tracking systems, and food recognition systems.

Dataset Description:

The dataset consists of multiple food items with attributes such as:

- **food_id**: Unique identifier for each food item
- **food_name**: Name of the dish/food
- **category**: Food type (e.g., Indian, Fast Food, Dessert, Healthy, etc.)
- **calories**: Caloric value per serving (kcal)
- **protein_g**: Protein content (in grams)
- **fat_g**: Fat content (in grams)
- **carbs_g**: Carbohydrate content (in grams)

Data Collection Process:

- I manually created the dataset using popular food items across cuisines.
- Nutritional values (calories, proteins, fats, carbs) were referenced from general nutrition data and rounded for simplicity.
- Indian, continental, and fast food items were included for diversity.

Challenges Faced:

- Ensuring nutritional data was consistent across all items.

- Deciding which dishes to include, since food options are vast.
- Balancing the dataset with both healthy and high-calorie options.

Assumptions Made:

- Nutritional values are approximate and averaged across common recipes.
- Portion size is assumed to be a standard single serving.
- The dataset is not exhaustive but covers a variety of categories.

Conclusion:

This dataset is useful for applying AI/ML techniques in nutrition-based applications. It can support projects such as calorie tracking apps, food recommendation systems, and predictive modeling for health management.