Formal model for a balanced and healthy nutritional plan

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Abstract
In the informational era a new challenge for every person using digital devices is to inform and implement healthy nutrition methods. The same challenge is for application developers who want to highlight the research that nutritionists have managed to do in healthy nutrition. The advantages of formal methods are the understanding of mechanisms by non-nutritionists. This result is given by the identification of the variables that define the formal model and the realization of the chart that allows the understanding of the entire nutritional plan. Identifying the model for establishing the nutritional plan in the personalized diet: 1. Medical practice and literature suggest that the main Steps for establishing a balanced nutritional plan that a specialist should follow is the following the level of physical education - depending on the activity of each person, the group to which it belongs is identified: sedentary, easily active, very active, extremely active; 2. based on weight and height, the body mass index (BMI); 3. Age; and 4. The basal metabolic rate (RMB) is established using the formula of Harris-Benedict, which was identified in 1919 that calculates our daily caloric requirements:

- For men: MB (kcal/day) = 66.5+13.75×Weight(kg)+5×Height(cm)-6.78×Age(years)
- For women: MB (kcal/day) = 655+9.56×Weight(kg)+1.85×Height(cm)-4.68×Age(years).

Variables are grouped according to each person's specificity: gender, weight, height, and level of physical effort. It can actually be a grammar G that generates a diet relative to previous restrictions.
Activities to establish a proper nutrition can be done through generative and recognition devices in relation to Chomsky's hierarchy. Build a language associated with each of the conditions / restrictions considered.

Keywords:
Computer Models; Formal Healthy Diet; Nutritional Status