# CHAPTER II LITERATURE REVIEW

## **Review of Current Situation**

At this time, the development of the calorie calculator systems has grown rapidly. Even in advanced applications, you can measure every aspect. Therefore, in creating a calorie calculator application, users can find out what they want and also get recommendations to achieve better results. This application can also optimize the user in achieving user consistency in carrying out tasks that have been informed to the user.

Nutritional status is the state of health of individuals or groups determined by the degree of physical need for energy and nutrients obtained from food and food whose physical impact is measured anthropometrically (Almatsier, 2005). According to the journal Relations Between (Elga, Precha, 2007) Kim and Lennon (2006:347) define diet as: "Reduction in caloric intake to lose weight".

## **Review of Related Literature**

Based on the definition above, dieting behavior can be interpreted as deliberately restricting nutrition in the form of calories, which is intended to get a thinner body shape. (Fitriyanti, 2013:12). Calories are units of energy that can be obtained from food. Each type of food will certainly produce a different number of calories.

The amount of energy needed by humans varies, depending on body size, gender, age, body temperature, activity, and nutritional status. (Malahayati, S.Psi, 2010). In calculating the Ideal Body Weight (IBB) For ages over 12 years using the Brocca standard (Almatsier, 2005) BBI = (TB – 100) – (10% (TB – 100)) Note: BBI: Ideal Body Weight (kg) TB : Height (cm) Body Mass Index (BMI) is the limit used to determine normal adult weight (Supariasa, 2001). The Body Mass Index formula for adults is as follows: BMI = 𝐵𝐵𝑇𝐵 𝑥 𝑇𝐵. Harris Benedict Isnanto, Pamungkas and Martono's method in their journal (2016) quoting from Harris, J.A., Benedict. F.G. (1918) explained that the main components that determine a person's energy needs are the Basal Metabolic Rate (AMB) expressed in kilocalorie units and physical activity. The basal metabolic rate is the minimum energy requirement that the body needs to carry out bodily processes. The basal metabolic rate in this study used the Harris-Benedict formula which is shown in equations 1 and 2 below: AMB for Male = 66+(13.7 ×BB)+ (5×TB) -(6.8 ×U) (1) AMB for Female = 655+(9.6 ×TB)+ (1.8 ×TB) -(4.7 ×U) (2) Information : BB = Weight (kg) TB = Height (cm) U = Age in years.