## **Abstract**

Nutritious food is a primary needs for human, especially college students. Sometimes, students a little less concerned with calories that their body needs based on their activities and calories that contained in the food they eat. With a system that can give food choice based on budget and the calories that our body needs, is expected that student can give more attention about calories in the food that they buy.

This problem belong to Knapsack Problem, that is a problem how to choose from many objects are available in order to get optimal storage. Method or algorithm which implemented is Dynamic Programming, where the solution will be parsed into a set of interrelated steps.

Test results show the system can deliver results on a menu with adequate amount of calories that almost the body needed. After doing some testing, obtained recommendation menu with 649 calories while the number of calories your body needs is 650 calories.

**Keywords**: Knapsack Problem, Dynamic Programming, menu, calories, budget.