CHAPTER 6
CONCLUSION

The program of these project aims to determine the composition of food ingredients for diabetics with the parameters used are age, sex, height, and weight of diabetics. This program applies genetic algorithms. To calculate the patient's calories used formulas by Harris Benedict. By knowing the data of diabetics, it can determine the combination of foods. In this program the user can determine many generations as desired, besides the selection provided is 2, namely Elitism selection and RouletteWheel selection. The results of Elitism selection will always be parallel because the principle of Elitism selection is to look for the best individual as the next population, whereas the results of RouletteWheel selection will very greatly, can go up or down, because the principle of selection RouletteWheel allows all individuals to become the next population in the next generation. The results of accuracy to determine the composition of food ingredients for diabetics is optimum with Elitism selection. Besides that Elitism selection is faster than RouletteWheel selection. The result not only to determine the composition of food but it also provides the substitution of food. The result of a combination of food and speed depends on the hardware where the program is running.

The suggestions for further research is to use Tournament Selection to get more optimal results. In addition to calculating calories can try using the calculation of the Institute of Medicine, the Food and Nutrition Board. The suggested calculations are newer and divided calculations based on age differences.