SUMMARY

This research work is initiated to Study the computation process to determine the clinical decision support system to determine the level of cancer using data mining techniques association algorithm. The mammographic image is obtained from the laboratory and converted as a data set presented as multi dimensional data representation discussed in the previous chapter. The univariate algorithm is used to cluster the data set in to equal five clusters and identified the non zero elements to which leads to the prediction of density ratio. This density ratio and the obtained values are compared initially. The selection of attribute to preprocess the density determination plays the vital role.

In digital image, the layers are used for separating different elements of the image. In this research, the image is divided into layers and several image properties are applied to the image which gives many color images. Based on these images the density level on digital mammogram is to be identified using layer based approach. In this project used color as well as grayscale images to find the high density pixels and the stage of the cancer. Index based approach is used to determine the percentage level of breast cancer in digital mammogram. Based on the level values the stage of cancer is predicated.

The association mining process, the affected non zero pixels and its corresponding sum values are considered to calculate the stage values. The stage levels are determined and explained in the previous chapters. The cluster processes are obtained from the preprocessed mammographic images. The mammographic images are processed using geometrical algorithm and carried out with four different images of same patients which obtained at the same time. According to the adaptation of geometrical preprocessing the approach is classified into two
namely common attribute and multiple attributes. The research process results are obtained in the analysis of 6400 data set analysis. Each common attribute stage is processed from the 80 data set analysis and the multiple attribute results are 320 data set analysis process. While executing common attributes are processed and the results are compared.

The common attribute process, the values are same but the stages are not same for the same patients and differ one with another. It shows the density difference are more while executing common attribute approaches. but multiple attributes are produced with same level. Therefore the compared result are verified with the medical expert. As per the research result univariate, multiple attribute geometrical preprocessed approach is appreciated and determined mammographic cancer stages.