In this Project, a serial K-Mean algorithm was implemented using the C programming language. K- mean algorithm defines the centroid of the cluster using the mean value of the points in the cluster. This is how the algorithm works. Firstly, it chooses k objects from D as initial cluster centers. After that , it repeats and reassigns each object to the cluster that is most similar based on the mean value of the object in the cluster. Then, it updates the cluster mean and calculates the mean value of each cluster until there is no change. In the first part of the phase 1, the serial code was tested with the example given in the lecture. The points were grouped into three clusters using the k-mean algorithm. Then the produced result was compared with the actual result. The result was positive. In the second part of the phase 1, the serial code was tested with the medical dataset provided. The result is shown in a confusion matrix and the accuracy of the data was calculated.