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Heart Disease Prediction: A Clustering-Based Clinical Decision Support Approach

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Description Heart disease is a common cause of death worldwide. Nowadays, several CDS (clinical decision support) systems are helping to avert the disease to great extent. In this research, an effort has been made to use different clustering techniques (k-means, k-medoids, hierarchical agglomerative clustering (HAC)) on standard heart disease datasets. An estimate has been done regarding the prediction accuracy of each cluster using machine learning classifier KNN (k-nearest neighbour). Experimental results indicated that hierarchical agglomerative clustering (HAC) is highly effective in terms of producing clusters with high prediction accuracy over k-means and k-medoids based clustering. While hierarchical agglomerative clustering (HAC) produced clusters with higher prediction accuracy, the time taken to perform HAC was slightly higher than k-means and k-medoids execution.

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