**Existing System:**

Heart diseases have emerged as one of the most prominent cause of death all around the world. According to World Health Organisation, heart related diseases are responsible for the taking 17.7 million lives every year, 31% of all global deaths. In India too, heart related diseases have become the leading cause of mortality [1]. Heart diseases have killed 1.7 million Indians in 2016, according to the 2016 Global Burden of Disease Report, released on September 15,2017. Heart related diseases increase the spending on health care and also reduce the productivity of an individual. Estimates made by the World Health Organisation (WHO), suggest that India have lost up to $237 billion, from 2005-2015, due to heart related or Cardiovascular diseases . Thus, feasible and accurate prediction of heart related diseases is very important.

Medical organisations, all around the world, collect data on various health related issues. These data can be exploited using various machine learning techniques to gain useful insights. But the data collected is very massive and, many a times, this data can be very noisy. These datasets, which are too overwhelming for human minds to comprehend, can be easily explored using various machine learning techniques. Thus, these algorithms have become very useful, in recent times, to predict the presence or absence of heart related diseases accurately.

**Proposed System:**

Dimensionality Reduction involves selecting amathematical representation such that one can relate the majority of, but not all, the variance within the given data, thereby including only most significant information. The data considered for a task or a problem, may consists of a lot of attributesor dimensions, but not all of these attributes may equally influence the output. A large number of attributes, or features, may affect the computational complexity and may even lead to overfitting which leads to poor results. Thus, Dimensionality Reduction is a very important step considered while building any model. Dimensionality Reduction is generally achieved by two methods -Feature Extraction and Feature Selection.