

**Project title:** Visualizing And Predicting Heart Diseases With An Interactive Dash Board

**Team ID:** PNT2022TNID54403

## Literature Survey

Title & Author(s)	Year	Technique(s)	Findings/Pros/Cons
<p>“An interactive dashboard to track themes, development maturity, and global equity in clinical artificial intelligence research”</p> <p>Joe Zhang, Stephen Whebell, Jack Gallifant, Sanjay Budhdeo, Heather Mattie, Piyawat Lertvittayakumjorn, Maria del Pilar Arias Lopez, Beatrice J Tiangco, Judy W Gichoya, Hutan Ashrafian, Leo A Celi, James T Teo</p>	2022	End-to-End Natural Language Processing (NLP) pipeline, MEDLINE→Interactive dashboard	While demonstrating state-of-the-art NLP performance, classifier limitations include imperfect accuracy compared with careful human reviewers. Finally, prediction using full articles could increase performance.
<p>“An interactive dashboard for real-time analytics and monitoring of covid-19 outbreak in india: a proof of concept”</p> <p>Arun Mitra, Biju Soman, Gurpreet Singh, Achutha Menon Centre for Health Science Studies, SCTIMST</p>	2021	The application of data science methods and epidemiological techniques	This demonstrates the application of data science methods and epidemiological techniques in public health decision-making while addressing the gap of timely and reliable decision aiding tools.
<p>“An Interactive Dashboard for Monitoring the Spread of COVID-19 in Sudan”</p> <p>A. M. O. Abdelsamad and A. Z. Karrar</p>	2020	Dashboard using Tableau and Visual Analysis	The resulted dashboard and the visual analysis provided important insights that can be used to make informed decisions concerning the spread of COVID-19 in Sudan.

<p>“Implementation of Business Intelligence for Sales Data Management Using Interactive Dashboard Visualization in XYZ Stores”</p> <p>R. Akbar, M. Silvana, M. H. Hersyah and M. Jannah</p>	2020	Business Intelligence (BI) application using Interactive Dashboard Visualization	This research produced reports in the form of Interactive Dashboard Visualization which is used by the store managers to make better decisions.
<p>“A novel approach for heart disease prediction using strength scores with significant predictors”</p> <p>Yazdani, A., Varathan, K.D., Chiam, Y.K. <i>et al</i></p>	2021	Weighted Associative Rule Mining	Achieved highest confidence score by utilizing the computed strength scores of significant predictors on Weighted Associative Rule Mining in predicting heart disease.
<p>“Heart disease prediction using machine learning algorithms”</p> <p>Harshit Jindal, Sarthak Agrawal, Rishabh Khara, Rachna Jain and Preeti Nagrath</p>	2021	Logistic regression and KNN	The Given heart disease prediction system enhances medical care and reduces the cost.
<p>“Heart Disease Prediction Using Machine Learning”</p> <p>C. Boukhatem, H. Y. Youssef and A. B. Nassif</p>	2022	Multilayer Perceptron (MLP), Support Vector Machine (SVM), Random Forest (RF), and Naïve Bayes (NB)	The models were evaluated based on the accuracy, precision, recall, and F1-score. The SVM model performed best with 91.67% accuracy.
<p>“Improving the Accuracy for Analyzing Heart Diseases Prediction Based on the Ensemble Method”</p> <p>Xiao-Yan Gao, Abdelmegeid Amin Ali, Hassan Shaban Hassan, and Eman M. Anwar</p>	2021	Linear Discriminant Analysis (LDA) and Principal Component Analysis (PCA)	The experimental results showed that the bagging ensemble learning algorithm with DT and PCA feature extraction method had achieved the best performance.

