REPORT ON HEART DISEASE ANALYSIS

Task 1: Define Problem/Problem Understanding

Activity 1: Specify the business problem

- One common business problem in heart disease analysis is the need for accurate prediction models that can efficiently identify individuals at risk of developing heart disease. This involves integrating diverse data sources, such as medical history, lifestyle factors, and genetic predispositions, to develop robust predictive algorithms. Another challenge is ensuring the scalability and accessibility of these models for widespread adoption in healthcare settings.

Activity 2: Business requirements

- In analysing heart disease data, business requirements typically involve identifying key metrics like risk factors, patient demographics, treatment efficacy, and cost-effectiveness to optimize healthcare delivery and improve patient outcomes. This may involve predictive modelling, data visualization, and identifying actionable insights for healthcare providers and policymakers.

Activity 3: Literature Survey

- A literature survey on heart disease analysis in data analytics would involve examining various research papers, articles, and studies that explore the use of data analytics techniques to analyse and predict heart disease. It would cover topics such as predictive modelling, risk assessment, early detection, and personalized treatment approaches. Key areas to focus on might include machine learning algorithms, feature selection methods, data preprocessing techniques, and performance evaluation metrics used in heart disease analysis. Additionally, it's important to consider the

datasets used, such as clinical data, imaging data, genetic data, or a combination of these, and the specific challenges and opportunities associated with analysing each type of data.

Activity 4: Social or Business Impact

Social Impact:

- Analysing the social impact on heart disease in data analytics involves examining factors such as socioeconomic status, access to healthcare, lifestyle choices, and environmental influences. By studying these factors, researchers can identify patterns and correlations that may contribute to the prevalence of heart disease in certain populations. This information can then be used to develop targeted interventions and policies aimed at reducing the burden of heart disease on society.

Business Impact:

- Analysing the business impact on heart disease in data analytics involves exploring how factors like occupational stress, workplace wellness programs, insurance coverage, and healthcare policies influence the occurrence and management of heart disease among employees. By understanding these dynamics, businesses can implement strategies to promote employee health and well-being, potentially reducing healthcare costs, absenteeism, and productivity losses associated with heart disease. This analysis can also inform the development of tailored workplace interventions and health promotion initiatives.