HI 743 - Predictive Analytics in Healthcare
RMarkdown Assignment Rubric

Section 1: Statistical Analysis Report (10 points)

Students must clearly document their lab work by writing a structured statistical analysis report, detailing the steps taken and justifying the analysis.

Criteria	Points	Description
Introduction & Objective	1	Clearly states the objective of the analysis and provides context.
Data Understanding & Preparation	2	Describes the dataset, including variable descriptions, data cleaning, transformations, and handling missing values.
Model Implementation & Explanation	3	Describes the predictive modeling technique(s) and interprets outputs.
Results & Interpretation	2	Clearly interprets results using appropriate metrics (e.g., accuracy, MSE, R^2, etc..), explains significance, and discusses limitations.
Reproducibility & Code Quality	2	Uses clear, well-commented RMarkdown code; outputs and explanations are properly formatted and reproducible.

Section 2: Follow-Up Assignment (10 points)

Students complete a predictive analytics task on their own, applying the techniques learned in class to a new dataset or problem.

Criteria	Points	Description
Problem Definition & Justification	1	Clearly articulates the problem to be solved and its relevance in healthcare.
Data Import, Cleaning, & Exploration	2	Demonstrates correct data loading, preprocessing, and exploratory data analysis with appropriate visualizations.
Model Selection & Justification	2	Justifies the predictive model and describes any modifications from lab work.
Results & Performance Evaluation	2	Uses appropriate evaluation metrics to assess model performance and discusses findings in the healthcare context.
Conclusion & Discussion	1	Summarizes key insights, reflects on model strengths and weaknesses, and discusses possible improvements.
Code Quality & Documentation	2	Provide clean, reproducible RMarkdown code with inline explanations, proper formatting, and well-structured headings.

Total: 20 Points