Healthcare Predictive Analytics Project

Project Plan

The project will be completed in **4 weeks**, divided into the following phases:

Week 1: Data Collection and Preprocessing

- Gather relevant healthcare datasets.
- Perform exploratory data analysis (EDA).
- Handle missing data and standardize the dataset.

Week 2: Data Analysis and Visualization

- Identify relationships between health metrics and patient outcomes.
- Create visualizations such as heatmaps and trend lines.
- Generate insights based on statistical analysis.

Week 3: Model Development and Optimization

- Select suitable machine learning algorithms.
- Train and evaluate models using appropriate metrics.
- Optimize model parameters for better accuracy.

Week 4: Deployment and Finalization

- Deploy the predictive model as a web application.
- Implement model monitoring and performance tracking.
- Prepare final documentation and presentation.

Team Members and Responsibilities:

Jomana Mohamed and Basmala Hussien - Data Collection, Data Analysis, and Visualization
Ziad Tamer – Data Preprocessing, Feature Engineering, and Model Development
Ebrahim BenBella - Model Development, Model Evaluation, Model Optimization
Mazen Mohamed - System Integration and testing, Deployment
All Team Members - Final Presentation

This structured plan ensures the successful development and deployment of a functional healthcare predictive analytics system within the given timeline.