

# 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

**Mazen Mohamed** – System Integration and Testing

**Jomana Mohamed** – Data Analysis and Visualization

**Basmala Hussien** – Data Collection and Preprocessing

**Ebrahim BenBella** – Model Development and Optimization

**Ziad Tamer Ibrahim** – Deployment and Final Presentation

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