**Scope Statement**

**Project Name:** Reducing 30-day Readmission Rate for diabetic patients

**Product Characteristics and Requirements:**

This project will use Python to analyze a dataset of diabetic patient records and design a predictive analysis through machine learning algorithms to identify patients at high risk of readmission so the hospital can take corrective actions and reduce the 30-day readmission rate.

**Out of Scope:**

This project will not consider additional datasets to be used for predictive analysis and will only analyze for factors contributing to the reduction of the 30-day readmission rate for diabetic patients

**Product User Acceptance Criteria:**

* The model has a high degree of accuracy and reliability in identifying high-risk patients
* Model results in improved patient outcomes through a reduction in the 30-day readmission rate for diabetic patients
* The model is HIPAA compliant and protects patients’ data

**Work Breakdown Structure (WBS)**

**Project Name:** Reducing 30-day Readmission Rate for diabetic patients

1. Project planning
   1. Project objective and scope
   2. Project stakeholders
   3. Project budget
   4. Project team
   5. Project schedule
   6. Risk register
2. Project analysis
   1. Needs assessment
   2. Requirements and specifications
   3. Constraints and limitations
3. Powerpoint presentation
   1. Python project
      1. Cleaned dataset
         1. Variables required to predict readmission
      2. Predictive analysis
         1. Correlation
         2. Linear regression
         3. Logistic regression
         4. Random forest
         5. KMean
         6. Decision Tree
   2. Infrastructure project
      1. Infrastructure design
   3. Visualization project
      1. Tableau dashboard