**Project Proposal**

**Diabetes Prediction and Analysis**



**Proposed to:**

Daniel

**Organized by:**

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**Project title:**

Diabetes Prediction and Analysis

**Problem statement:**

One of the challenges of the 21st century is the fast growth of diabetes, with the number of adults living with diabetes have tripled over the past 20 years. It is not only a disease itself but lead to many other diseases like heart attack and stroke, and problems with kidneys, eyes, feet and nerves etc. The normal process of diagnosing is to visit a doctor and get tested and wait for your reports. This project simplifies the process by detecting whether a patient has diabetes or not based on diagnostic measurements.

**Dataset Used**:

The dataset is attained from Kaggle dataset and data. World

<https://www.kaggle.com/uciml/pima-indians-diabetes-database>

<https://data.world/informatics-edu/diabetes-prediction/workspace/file?filename=Diabetes_Classification.xlsx>

The data obtained from Kaggle is mainly based on females and consists of several medical predictor variables and one target variable, Outcome. Predictor variables includes the number of pregnancies the patient has had, their BMI, insulin level, age, and so on.

The data obtained from data. World includes classifying variables such as cholesterol, glucose, age ,gender, height, weight, BMI, diabetes and so on.

**Data Cleaning** :

As the data has a lot of missing values so data will be cleaned and formatted using Pandas. The missing values will be handled by replacing the null value with a random variable.

The data will be classified into patients having diabetes or not which will be done by dividing the dataset into training and testing data.

**Technologies Used:**

Python, Pandas, ML, Scikit-Learn, Tableau, HTML, CSS,

**Goal :**

The aim of the project is to develop an effective technique for the earlier detection of the diabetes disease. This model aims at having a higher accuracy in results as it combines different machine learning techniques. It can be helpful in identifying the disease at an early stage and the patient can be treated before it becomes serious.

Detecting diabetes at an early stage helps in treating the patients at the right time. It can also be helpful for researchers to provide the clinicians with accurate information so they can make better decision about the disease status.