**Diabetics Prediction Using Logistic Regression**

1. **Introduction**
   1. **Background**

Diabetes is a very common problem among human beings of any age. Diabetes mellitus (DM), commonly known as diabetes, is a group of [metabolic disorders](https://en.wikipedia.org/wiki/Metabolic_disorder) characterized by a high blood sugar level over a prolonged period of time. Symptoms often include frequent urination, increased thirst, and increased appetite. If left untreated, diabetes can cause many complications. Acute complications can include diabetic ketoacidosis, hyperosmolar hyperglycemic state, or death. Serious long-term complications include cardiovascular disease, stroke, chronic kidney disease, foot ulcers, damage to the nerves, damage to the eyes and cognitive impairment. As of 2019, an estimated 463 million people had diabetes worldwide (8.8% of the adult population). Rates are similar in women and men. Trends suggest that rates will continue to rise. Diabetes at least doubles a person's risk of early death. In 2019, diabetes resulted in approximately 4.2 million deaths. It is the 7th leading cause of death globally. Hence it would be helpful if it can be predicted whether a person is more prone to diabetes based on certain medical conditions.

* 1. **Problem**

The dataset providing details of certain numbers of persons under scrutiny with different medical conditions might be helpful to prepare an algorithm which may be helpful to predict whether a person under consideration may have diabetes or not.

* 1. **Interest**

It would be naturally of interest to medical researcher or practioners. At the same point of time it would be beneficial for an individual being to ascertain whether he/she is in high risk zone or not when it comes to being diagnosed with diabetes.