**Context:**

This dataset is originally from the National Institute of Diabetes and Digestive and Kidney Diseases. The objective of the dataset is to diagnostically predict whether or not a patient has diabetes, based on certain diagnostic measurements included in the dataset. Several constraints were placed on the selection of these instances from a larger database. In particular, all patients here are females at least 21 years old of Pima Indian heritage.

**Problem Statement:**

1.Build a model to accurately predict whether the patients in the dataset have diabetes or not?

**Dataset Description:**

The datasets 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.

**Pregnancies**: Number of times pregnant

**Glucose**: Plasma glucose concentration a 2 hours in an oral glucose tolerance test

**BloodPressure**: Diastolic blood pressure (mm Hg)

**SkinThickness**: Triceps skin fold thickness (mm)

**Insulin**: 2-Hour serum insulin (mu U/ml)

**BMI**: Body mass index (weight in kg/(height in m)^2)

**DiabetesPedigreeFunction**: Diabetes pedigree function

**Age**: Age (years)

**Outcome**: Class variable (0 or 1) 268 of 768 are 1, the others are 0

2.Create a dashboard in tableau by choosing appropriate chart types and metrics useful for the business. The dashboard must entail the following:

1. Pie chart to describe the diabetic/non-diabetic population
2. Scatter charts between relevant variables to analyse the relationships
3. Histogram/frequency charts to analyse the distribution of the data
4. Heatmap of correlation analysis among the relevant variables
5. Create bins of Age values – 20-25, 25-30, 30-35 etc. and analyse different variables for these age brackets using a bubble chart.