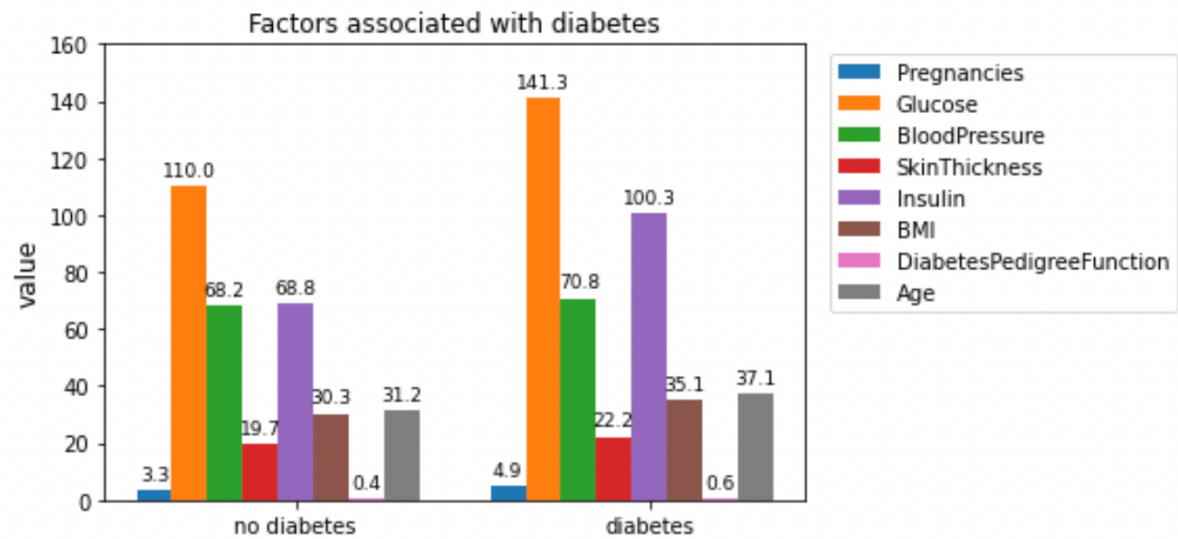


Triggers of Diabetes

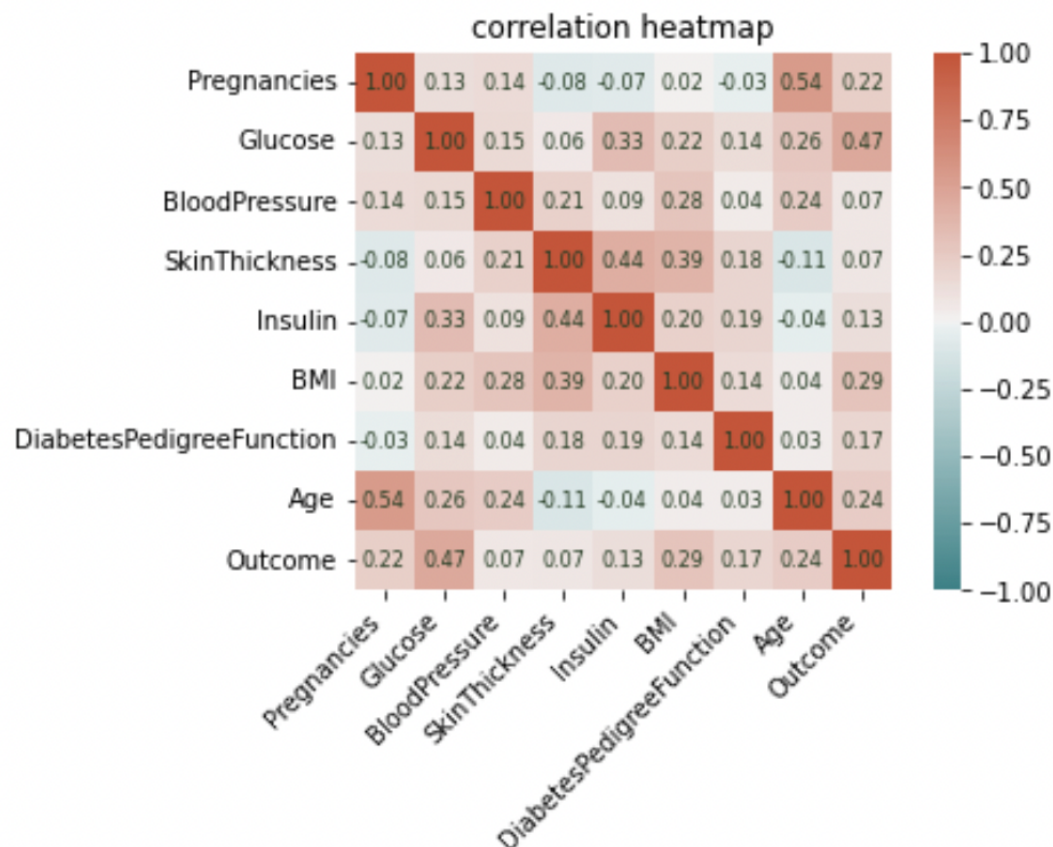


- The figure above lists eight factors may be linked to diabetes.
 - Pregnancies: To express the Number of pregnancies.
 - Glucose: To express the Glucose level in blood.
 - BloodPressure: To express the Blood pressure measurement.
 - SkinThickness: To express the thickness of the skin.
 - Insulin: To express the Insulin level in blood.
 - BMI: To express the Body mass index.
 - DiabetesPedigreeFunction: To express the Diabetes percentage.
 - Age: To express the age.
- The numbers on the y-axis of the histogram show the average values of different factors for people with or without diabetes in the csv file.
- The X-axis represents whether you have diabetes
- Different colors represent different factors that may cause diabetes
- It can be seen from the figure that all values on the right side of the two groups of figures are higher than those on the left side, the gap between glucose and insulin is the most obvious, and there is also a certain gap between BMI and age. It shows that glucose and insulin are the most important factors for diabetes, and high body fat can also cause diabetes.

The data set consists of 8 factors that may cause diabetes and the data of whether they have diabetes or not. In this figure, I average the different factors in the data set according to whether they have diabetes or not, and use a histogram to display people's body data difference with diabetes and people without diabetes, trying to find out the most important factors that cause diabetes.

From the above figure, we can clearly see the difference in physical data between people with diabetes and those without diabetes. The specific average values can also

be seen in the figure. It is obvious that all the values of people with diabetes are on the high side. It is most obvious on glucose and insulin. Obviously, these two factors almost directly affect people's health. At the same time, there are also differences in BMI and age. People with a higher body fat percentage are more likely to suffer from diabetes, and older people are more likely to suffer from diabetes. high. Because type 1 diabetes usually develops in childhood or adolescence, type 2 diabetes is more common and occurs more frequently in people over the age of 40. This shows that as we grow older, we should pay more attention to our health and control body fat. Excessive obesity can easily cause diabetes.



- The horizontal and vertical coordinates of this graph are all elements in the data set
- The grid in the middle of the figure represents the correlation of the corresponding horizontal and vertical coordinate elements
- The color in the figure represents the degree of correlation. Positive correlation is red, and negative correlation is green. The darker the color, the stronger the correlation. The numbers in the grid can also clearly see the value of the correlation.

The data set consists of 8 factors that may cause diabetes and the data of whether you have diabetes. In this figure, I calculate the correlation for all elements of the data set, and use heatmap to display the connection between elements.

From the above figure, it can be seen that whether diabetes has a strong relationship

with glucose, BMI, age, pregnancies. BMI has a strong relationship with glucose, diabetes, BloodPressure, and SkinThickness. Obesity is very harmful to the body. We need to pay attention to our health and not be overweight.

Data source: <https://www.kaggle.com/datasets/akshaydattatraykhare/diabetes-dataset>

GitHub: https://github.com/leikkkk/final_visualization