The data needed to be converted from *‘1’s* and *‘0’s* to strings in the *‘hypertension’, ‘heart\_disease’, and ‘diabetes’* columns. The manipulation and changing of the data were done with jupyter notebook.

A screenshot of a computer

Description automatically generated

The *‘hypertension’* column was labeled as *‘0’* for ‘*not hypertensive’* and *‘1’*  for ‘*hypertensive’*:

A screenshot of a computer

Description automatically generated

The *‘heart\_disease’* column was labeled as *‘0’* for ‘*no heart disease’* and *‘1’*  for ‘*heart disease’*:

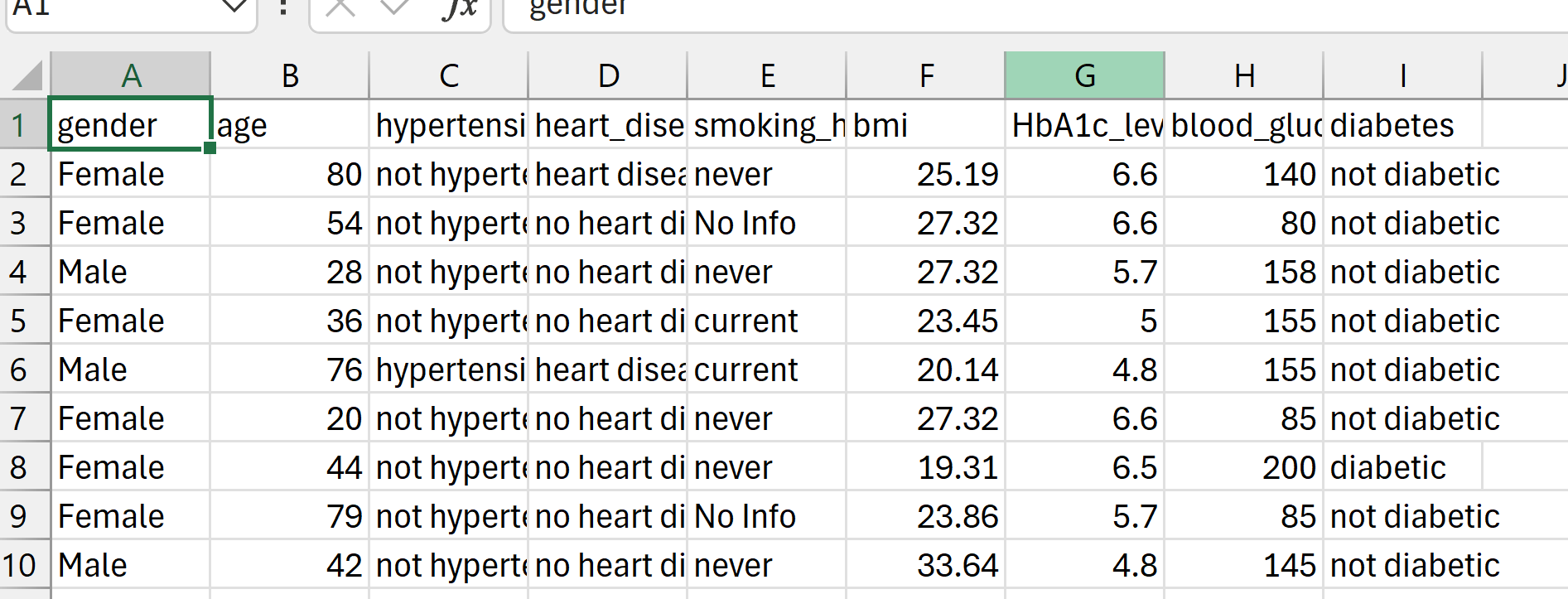
A screenshot of a computer

Description automatically generated

The *‘diabetes’* column was labeled as *‘0’* for ‘*not diabetic’* and *‘1’*  for ‘*diabetic’*:A screenshot of a computer

Description automatically generated

The resulting csv used for tableau:



After uploading the csv, I noticed the visualizations would be easier to work with and manipulate if I created reference ranges for the *‘bmi’, ‘HbA1c\_level’,* and *‘blood\_glucose\_level’*. The reference ranges that I used were referenced from the CDC, National Institutes of Health, and the World Health Organization.

The way I created the references in Tableau is by creating loops and ‘If’ statements:

* ‘*bmi\_ranges’*:



* ‘*Glucose Ranges’*:

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Description automatically generated

* ‘*HbA1c Ranges’*:

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Description automatically generated