1. **regression equation** :grip\_force\_pred=w0+w1\*weight+w2\*weight^2
2. **variable**: age,gender,height,weight,bodyFat,diastolic,systolic

3.**regression equation:** grip\_force\_pred=w 0+w 1⋅age+w 2⋅gender+w 3⋅height+w4⋅weight+w5​⋅bodyFat+w6​⋅diastolic+w7​⋅systolic

4.**Problem encountered:** How to handle the NaN values in the data to improve accuracy.

5.**How to solve the difficulty:**Initially, I used the median of the column to fill in the NaN values, but the effect was limited. Later, I discarded the entire row containing NaN values, but the MAPE increased significantly.

6.**Reflection:** From this lab, I learned how to implement linear regression, as well as the importance and necessity of data preprocessing. I also understood that handling missing data and discarding extreme values can improve prediction accuracy.