Project Report - Predicting Liver Disease

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Introduction

The project is aimed at developing a predictive algorithm for liver disease using patient records from India, which are publicly available on Kaggle.com through the link "https://www.kaggle.com/datasets/uciml/indian-liver-patient-records"".

Liver disease is a significant health problem worldwide, and its early detection is crucial because it allows for prompt treatment, which can prevent the progression of the disease and potentially save lives. The liver is a vital organ that performs numerous functions in the body, such as filtering toxins from the blood, producing bile, and metabolizing drugs. Liver disease can develop over time and may not present any symptoms until it has progressed to an advanced stage. Early detection can help identify the disease before symptoms become severe and irreversible damage has occurred. Furthermore, some types of liver disease, such as viral hepatitis, can be highly contagious, making early detection even more important in preventing the spread of the disease to others. Additionally, early detection of liver disease can enable healthcare professionals to closely monitor and manage the condition, which can help reduce the risk of complications and improve overall health outcomes. This may involve lifestyle changes, medication, and in some cases, surgery or liver transplantation.

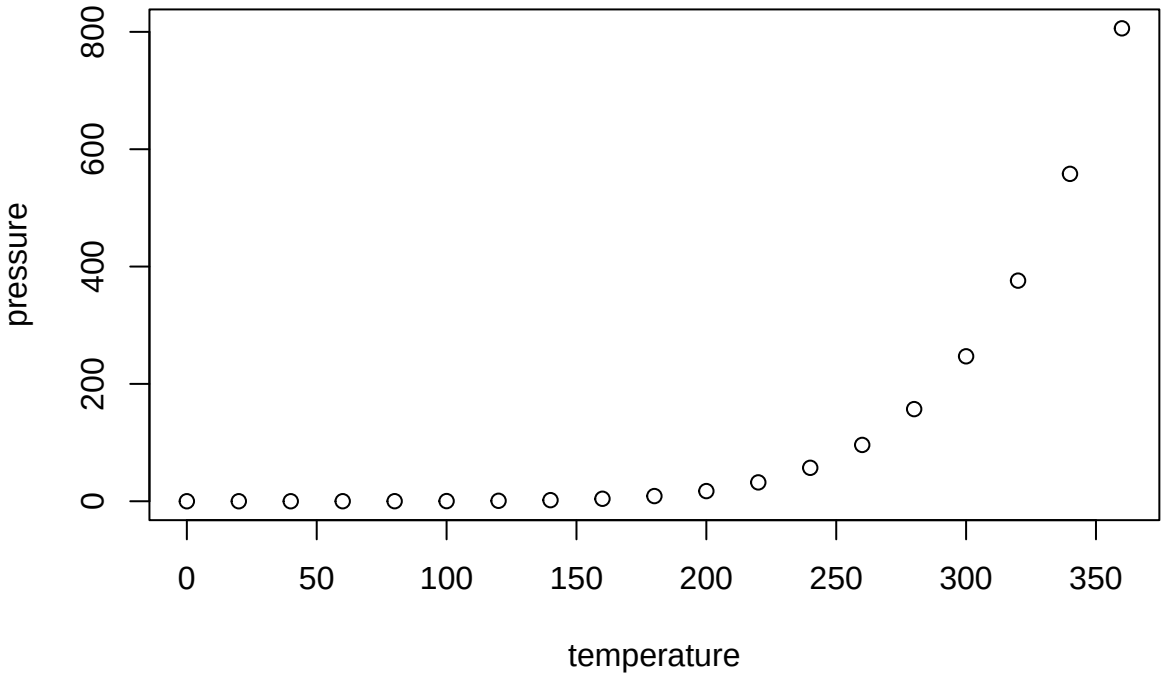
In this project, various machine learning will be applied and fine tuned to predict the likelihood of liver disease in patients.

```
summary(cars)
```

```
##      speed           dist
##  Min.   : 4.0   Min.   :  2.00
##  1st Qu.:12.0   1st Qu.: 26.00
##  Median :15.0   Median : 36.00
##  Mean   :15.4   Mean   : 42.98
##  3rd Qu.:19.0   3rd Qu.: 56.00
##  Max.   :25.0   Max.   :120.00
```

Including Plots

You can also embed plots, for example:



Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.