Brainstorming Session

Week 4 - Activity 2.5

Top-3 Points:

1. Through this project, we can successfully develop and validate a risk prediction model and subsequent user-friendly scoring tool, the Algorithm for Liver Function Investigations, for liver condition diagnosis in patients with no obvious liver condition at the time of incident liver function testing in primary care.
2. Upon early diagnosis of the liver condition, the severity would reduce and so does the cost of appropriate treatment methodologies. Hence, this project will help reduce the financial as well as biological impact.
3. Liver cirrhosis is a leading cause of death and affects millions of people in the United States. Early mortality prediction among patients with cirrhosis might give healthcare providers more opportunity to effectively treat the condition.

Discussion b/w Group Members:

Balakumaran S:

1. Early risk identification.
2. Saving cost and time.
3. Liver is an important organ in our human body where most of the metabolism takes place.
4. Can help many people as its mortality rate is very high and affects millions of people.

Saravanan P:

5. Additional enzymes or proteins that affect the liver can be included.
6. Based on the analytics we can analyze which patients are most likely to suffer from heart disease in the near future and based on the patient details we will make decisions to cure them.
7. To detect disease, Health Care Professionals need to collect samples from patients which can cost both time and money. The main problem is doctors cannot diagnose on the basis of variations in test results.
8. Current method of doctors analyzing each blood report is difficult. ML models can help speed up the process.

Buvaneswar A S:

9. Analyze the correlation between the different features of the initial-model.
10. What is the relation between the severity of the liver disease w.r.t age.
11. Can we somehow collect feedback from patients to identify any underlying relation b/w potential lifestyles that impact the liver in a very substantial way.
12. Talk with doctors to gather ideas about different data sources available for building the model.

Abhinav K:

13. Identification of different features that may help in the building of the model.
14. Analyzing what tests are taken when a patient undergoes diagnosis of liver and accordingly use those set of details in our model as applicable.
15. Develop disease-specific models that will help in early predictions of different kinds of liver diseases.
16. Perform an EDA to see if there are any common features between the disease-specific models.