Analytics For Hospitals' Health-Care Data

PROBLEM STATEMENT:

Recent Covid-19 Pandemic has raised alarms over one of the most overlooked areas to focus: Healthcare

Management. While healthcare management has various use cases for using data science, patient length of stay is one critical parameter to observe and predict if one wants to improve the efficiency of the healthcare management in a hospital.

This parameter helps hospitals to identify patients of high LOS-risk (patients who will stay longer) at the time of admission. Once identified, patients with high LOS risk can have their treatment plan optimized to minimize LOS and lower the chance of staff/visitor infection. Also, prior knowledge of LOS can aid in logistics such as room and bed allocation planning.

Suppose you have been hired as Data Scientist of Health Man – a not for profit organization dedicated to manage the functioning of Hospitals in a professional and optimal manner.

Who does the problem affect?	Covid-19 Patients
What are the boundaries of theproblem?	People who are affected by Covid-19
What is the issue?	In medical aspects, if the patient is affected by Covid-19 and he is discharged before 100% recovery, he would be a transmitter of the disease. So, we must correctly predict the Length of Stay of the patient in the hospital
When does the issue occur?	It occurred during the current pandemic period and still in progress

Where does the issue occur?	The issue occurs in hospitals Providing treatment for Covid-19 patients
Why is it important that we fix the problem?	It is required for prevent the transmission of disease and reduce cost due to hospital readmission
What solution to solve this issue?	An automated system is introduced to identify different factors involved in finding the Length of Stay through various visualization.
What methodology used to solve the issue?	Machine learning techniques are used to predict the Length of Stay of a Covid-19 patient.