

Problem Statement:

- Recent Covid-19 Pandemic has raised alarms over one of the most overlooked area 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. The task is to accurately predict the Length of Stay for each patient on case-by-case basis so that the Hospitals can use this information for optimal resource allocation and better functioning. The length of stay is divided into 11 different classes ranging from 0-10 days to more than 100 days.

Customer Problem Statement Template:

I am Indoor Patient	I'm trying to Get my medicine	But It takes too long	Because Inefficient scheduling	Which makes me feel Worried about my health
I am OutPatient	I'm trying to Get my entry seat	But Late response	Because Lack of staff	Which makes me feel Irritated
I am Hospital Nurse	I'm trying to Finding my shift	But No proper scheduling	Because No maintained data	Which makes me feel Upset
I am Hospital Worker	I'm trying to have to clean	But the doctors are working	Because Schedule Problem	Which makes me feel Irresponsible
I am doctor	I'm trying to do checkup	But nurse absent	Because have other duty at that moment	Which makes me feel Upset