

## **ANALYTICS FOR HOSPITALS HEALTH-CARE DATA**

### **Problem Statement:**

The aim is to develop an application 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. In recent times due to the pandemic many people suffered to lack of sufficient facilities. The health-care facilities also suffered due to the rise in the number of cases. Due to the rise in the number of cases the patients were unable to find the hospital bed to get the required treatment. The most important thing that was lacking is that analysis for health-care facilities, it is a very tedious task to maintain the registration in a manual workbook for the availability and to check the patient health record. To optimize it and make it more understandable, digital data has to be collected and it should be made available for the respective persons and public to check the availability or services they are looking for. To carry out a real-time data analysis, we are proposing the web app with intriguing dashboard and analysis on the patient data. At the time of admission, it helps the hospitals in identifying patients who are at high LOS-risk (patients who will stay longer). Once identified, patients at high risk for LOS can have their treatment plans improved to reduce LOS and reduce the risk of infection in staff or visitors. It gives us a full-fledged analysis on the hospital data regarding the patient health conditions and case study analysis, which can result in the enormous amount of growth in the health-care industry to analyse the health-care data. IBM Cognos analytical tool has been used to make the analysis and create an interactive dashboard to make the real-time analysis on the incoming data from the database. The scope of this project

is to make the intuitive dashboard, report and story to present it to the user's perspective to make them understand in better manner. Apart from the length of stay for each patient, it is used to analyse the various fields related to health using various visualization plots.