ANALYTICS FOR HOSPITAL'S HEALTH-CARE DATA

IDEATION

TEAM ID : PNT2022TMID04321

TOP 3 PRIORITIZED IDEAS :

1. Traditionally, to predict the date of release, hospital administrators rely on the facility's average length of stay (ALOS). For monthly ALOS calculation, add bed days for each discharged patient and divide the sum by the number of discharged patients. The final prediction is made taking into account a several-day margin of error.

2. You may divide all observations into two broad categories (binary classification) — for example, patients who would remain in the hospital for two more days and those who wouldn't. Or designate several categories (multiclass classification) — such as stays shorter than a day, three-day-long stays, seven-day-long stays, and so on. The model will identify to which group a particular instance relates.

3. Random Forest Algorithm ensembles learning algorithm combines outputs of multiple decision trees that cover for each other's weaknesses. Such teamwork allows for achieving better performance and prediction accuracy than with a base model. For classification, the range of days from 0 to 58 was divided into nine smaller intervals, each assigned a label from 1 to 9.