Blood Donation Prediction

Problem Statement

Task 1:-Prepare a complete data analysis report on the given data.

Task 2:-Create a predictive model which will help to repeat blood donations amongst donors based on a limited number of attributes

Dataset Link:

Blood transfusion saves lives - from replacing lost blood during major surgery or a serious injury to treating various illnesses and blood disorders. Ensuring that there's enough blood in supply whenever needed is a serious challenge for the health professionals. According to WebMD,"about 5 million Americans need a blood transfusion every year". Our dataset is from a mobile blood donation vehicle in Taiwan. The Blood Transfusion Service Center drives to different universities and collects blood as part of a blood drive. We want to predict whether or not a donor will give blood the next time the vehicle comes to campus in March 2007.

Attribute Information:

- **`Unnamed: 0`**: You can ignore this column

- **`Months since Last Donation`**: this is the number of monthis since this donor's most recent donation.
- **`Number of Donations`**: this is the total number of donations that the donor has made.

- `Total Volume Donated`: this is the total amound of blood that the donor has donated in cubuc centimeters.
- `Months since First Donation`: this is the number of months since the donor's first donation
- `Made Donation in March 2007`: a binary variable representing whether he/she donated blood in March 2007 (1 stand for donating blood; 0 stands for not donating blood).

Model Comparison Report

Create a report stating the performance of multiple models on this data and suggest the best model for production.

Report on Challenges faced

Create a report which should include challenges you faced on data and what technique used with proper reason.