**PRCP-1011-BloodDonaPred**

**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](https://www.webmd.com/a-to-z-guides/blood-transfusion-what-to-know#1),"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.

Link: <https://d3ilbtxij3aepc.cloudfront.net/projects/CDS-Capstone-Projects/PRCP-1011-BloodDonaPred.zip>

**Attribute Information:**

* **Unnamed: 0:** You can ignore this column
* **Months since Last Donation:** this is the number of month is 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 amount 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.

Note: -All above task has to be created on single jupyter notebook and share the same for final submission.