Guidelines for project no 2 – ABA-PPM 226161-0131

Topic: Practical application of models assessing customers lifetime value

Deadline: 19th January 2022 (negative points will be assigned for delay)

6 people in one team

Editorial standards:
- 12 pt, Times New Roman
- two-sided printing
- for binding the project please use only a stapler
- in the project there should be information about people responsible for each part of the project
- list of project group members on the title page
- limit of 15 pages (including tables, plots + one page program code with notes, presenting key procedures)

You should also submit electronic documentation (paper in text file, datasets in SAS format, program code). More details about uploading files will be given after submitting the project.

Score:
6 pts - structure and substantive analysis
4 pts – quality of text (table summaries, figures etc.)
5 pts - programming
5 pts – innovative aspects

Total 20 pts

Project structure:
- Introduction
- Research question with brief theoretical overview
- Insight into data
- Segmentation model or retention models
- Conclusion
- Last page with program code with notes on the performed steps

VERSION I – SEGMENTATION MODEL

Obligatory elements:
1. Transformation of variables
2. Finding various cluster solutions and choosing the best one

3. Detailed interpretation of results for the best cluster solution
4. Business conclusions, proposals of business activities based on the model

Examples of innovative aspects:
- implementing a procedure for variable selection
- optimizing the number of clusters in model
- another type of segmentation model (other than K-means)

VERSION II – RETENTION MODELS

Obligatory elements:
1. Estimating the simple retention model (including estimating retention rate, E(T), median time to cancelation, E(CLV) for both payments at the beginning and at the end of the period, PMF and survival plots + interpretation of all results)
2. Estimating the general retention model using Kaplan-Meier method (presenting the results and interpretation)
3. Comparing the estimates from SRM and GRM
4. Building GRM with stratification (presenting the results and interpretation)

Examples of innovative aspects:
- other type of model for estimating GRM (eg. logistic model for discrete time)
- using time-dependent covariates
- analyzing also other type of censoring (eg. left-censored data)
- estimating the distribution of the time to cancelation (parametric models– proc lifereg)

IMPORTANT! As innovative aspects we define everything that was not discussed at the classes and is included in the project.

Examples of datasets:
https://bigml.com/gallery/datasets
https://www.kaggle.com/