Manipal Academy of Higher Education

1. For the AAPS lab internal exam, you will work on identifying anomalous patients in the cardiac ICU dataset posted as *ICU_filtered.csv* on Teams under *AAPS > Data* using Mahalanobis distance. The dataset has several missing values which was addressed during a lab session. You are welcome to use any of the ideas discussed in class as well as AI support to deal with the categorical features and perform any feature engineering you may wish. A description of the features is available in the file *ICU Feature Description.png* under *AAPS > Data*. Your final submission should adhere to the following points:

   (a) Upload a PDF of your code clearly showing the output (no IPYNB and RMD files).

   (b) Upload a short report (2-4 pages) briefly explaining your approach along with visualizations and results. Provide citations as necessary at the end of the report.

   (c) Message me personally on Teams via chat a one paragraph summary of your approach and results.

   (d) All the three above will be revisited during the lab end semester exam for a one-on-one discussion with me. Failure to submit any one will lose you substantial points on both the lab internal and end semester exams.

   There is a baseline performance that will fetch you baseline points. Get creative; the more ingenuity you demonstrate will fetch you higher, and perhaps, the highest points. Good luck.