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College/Company: None

Specialization: Data Science

Problem description: Healthcare - Persistency of a drug

One of the challenges for all Pharmaceutical companies is to understand the persistency of drug as per the physician prescription. To solve this problem ABC pharma company approached an analytics company to automate this process of identification.

ML Problem:

With an objective to gather insights on the factors that are impacting the persistency, build a classification for the given dataset.

Business understanding:

ABC Pharma aims to automate the drug persistency identification process to improve treatment efficacy and patient care. They want to develop a machine learning model to classify patients based on adherence to prescribed medication, using the "Persistency_Flag". This effort seeks insights into factors affecting drug persistency for targeted patient adherence interventions.

The model will analyse Clinical Factors—like T-Scores, changes in T-Score, risk segments, DEXA scans, fragility fractures, and glucocorticoid usage—providing insights into the patient's health status. Disease/Treatment Factors will also be considered, including treatment history, risk factors, comorbidities, and concomitant drug usage, offering a comprehensive view of the patient's medical history and treatment regimen. Together, these factors aim to predict patient persistency, enabling targeted support for medication adherence.

Project lifecycle along with deadline: 27th Feb