### **Technical Requirements**

The project requires the use of structured data from the [Telco Customer Churn Dataset (Kaggle)](https://www.kaggle.com/datasets/blastchar/telco-customer-churn/data?select=WA_Fn-UseC_-Telco-Customer-Churn.csv), which includes detailed customer information such as demographics, contract types, service usage, payment history, and churn status. The technical implementation will be carried out using Python and SQL, with key data processing and analysis libraries such as Pandas, NumPy, and Seaborn for exploratory data analysis and feature engineering. The machine learning models to be implemented include Linear Regression, Decision Trees, XGBoost, Random Forest, and Deep Learning, all of which will be tested and optimized to ensure high accuracy in CLV prediction. For deployment, a Flask API will be developed to integrate the model into business applications, enabling real-time predictions and decision-making. Additionally, a Power BI dashboard will be created to visualize customer trends, churn likelihood, and CLV insights in an interactive format for T-Mobile’s marketing and retention teams. This combination of machine learning, data science, and visualization tools will enable proactive decision-making and strategic planning for customer retention.