1. Data Visualization:
- Created Power BI dashboard.
- Data visualization- scatter plots, histograms, box plots, and heatmaps.
2. Machine Learning:
- ML algorithms- logistic regression, decision tree, and random forest.
- XGBoost, SMOTE, and AdaSyn.
- Feature engineering techniques (PCA, LDA, feature scaling).
- Hyperparameter tuning (grid search, random search, and Bayesian optimization).
- Ensemble learning techniques- bagging, boosting, and stacking.
3. Anomaly Detection:
- Clustering, and density-based methods.
- Statistical techniques- Z-score, IQR, and percentile.
- Unsupervised learning techniques (k-means, DBSCAN, and Isolation Forest).
4. Data Preprocessing:
- Data cleaning, data transformation, and data normalization.
- Missing data imputation techniques- mean, median, and mode imputation.
- Outlier detection and removal techniques- box plots, scatter plots, and clustering..
- Data normalization (standard scaling, min-max scaling, and robust scaling).
5. Model Evaluation:
- Model evaluation metrics, precision, recall, F1-score, and AUC-ROC.
- Cross-validation techniques- K-fold, and stratified sampling.