**TITANIC Survival prediction**

* **Objective:** Developed a machine learning classifier to **predict passenger survival** on the Titanic, demonstrating end-to-end predictive modeling capabilities.
* **Data Preprocessing:** **Cleaned and transformed raw data** by handling missing values (imputation for 'Age', 'Fare', 'Embarked') and encoding categorical features ('Sex', 'Embarked', 'Pclass') using pandas and scikit-learn for model readiness.
* **Feature Engineering:** **Engineered relevant new features** (e.g., FamilySize) to enhance model accuracy and capture more meaningful relationships within the dataset.
* **Model Implementation:** **Trained a Logistic Regression model** (or specify RandomForestClassifier if you choose that) to classify passengers, showcasing understanding of core supervised learning algorithms.
* **Performance & Evaluation:** **Achieved an accuracy of approximately Score, 82%,** thoroughly evaluating model performance using key metrics like **precision, recall, and F1-score** to assess predictive robustness.
* **Tools & Technologies:** Utilized **Python**, pandas for data manipulation, and scikit-learn for efficient model building and evaluation.