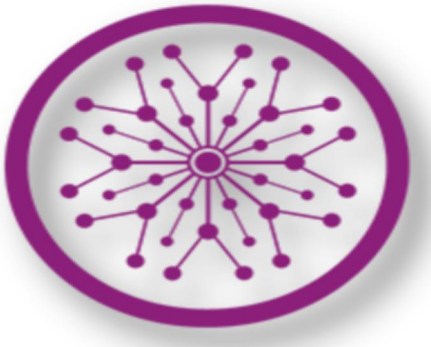

SUPERIOR UNIVERSITY

NAME :Muhammad ilyas

Roll number:033

Section:AI(4A)

SUBJECT:PAI-Lab

SUBMITTED TO :Rasikh Ali

Lab task 2:

Spaceship Titanic:

Introduction:

The Spaceship Titanic competition is a machine learning challenge where the goal is to predict which passengers were transported to another dimension. This report explains the steps taken to preprocess the data, train a model, and evaluate its performance.

Data Preprocessing

Loading Data: We loaded the dataset using pandas.

Handling Missing Values: Some columns contained missing values, so we removed columns like Age, RoomService, FoodCourt, ShoppingMall, Spa, VRDeck, and Cabin to simplify the model.

Encoding Categorical Data: We converted text-based categories into numerical values using Label Encoding.

Model Selection and Training

I selected a Random Forest Classifier as the machine learning model.

The model was trained using the cleaned training data.

Model Evaluation

After training, the model was tested to evaluate its performance.

The accuracy and prediction results were checked to determine how well the model performed on unseen data.

Conclusion

This project involved data preprocessing, feature selection, and training a Random Forest model to predict passenger transport status. The results suggest that feature selection and model tuning could further improve accuracy.

Accuracy:

Submission and Description	Public Score
submission.csv Complete · 24d ago	**0.64344**