Project - Churn Analysis

Dataset - Click here to download the dataset: **churn_data.csv**

Task - Given various features about a customer like Gender, SeniorCitizen, Partner, Dependents etc.. , predict if the customer will churn or not.

Step - 1: Load the data
Step - 2: Document the below mentioned points properly:
- Identify the input and output/target variables.
- Identify the type of ML Task.
- Identify the Evaluation Metric.
    - For regression task - Mean Absolute Error
    - For classification task - Accuracy

Step - 3: Split the dataset into Training and Testing (recommended 75:25 split).
Step - 4: Data preparation on train data:
- For Numerical Variables - Standardization or Normalization (Fit and Transform)
- For Categorical - LabelEncoding or OneHotEncoding (Choose wisely)

Step - 5: Data preparation on test data:
- For Numerical Variables - Standardization (Transform)
- For Categorical - LabelEncoding or OneHotEncoding (Choose wisely)

Step - 6: Model Training Phase - Use all the algorithms mentioned below to train separate models:
- KNN
- Logistic Regression
- Support Vector Machines
- Decision Trees
- Random Forest

Step - 7: Predict and evaluate each model separately using the correct evaluation metric.
Step - 8: Display a plot which shows all the algorithms applied along with the accuracies achieved. **Write your conclusion on the best algorithm for Churn Prediction**.