**PUBLIC TRANSPORT EFFICIENCY – PHASE 2**

**ALGORITHM:**

**LINEAR REGRESSION:**

* Linear regression is statistical method that can be used to model the relationship between two variables. It can be used to predict **the proportion of drivers, average vehicle age, presence of trams, total VKM, and population density were identified as variables increasing efficiency, meaning cities with higher values for these variables tended to have higher efficiency** predicting by using the linear regression techniques.
* **DecisionTree Regression**: It predicts the continuous output variables based on the independent input variable. like the prediction of house prices based on different parameters like house age, distance from the main road, location, area, etc.

**STEPS INCLUDE:**

**DATA COLLECTION & INTEGRATING:**

* Here, the Data contains the parameters of interest, this data should include both normal and unusual values for the parameters.
* The process of combining data from multiple source systems to create unified sets of information for both operational and analytical uses.

**DATA PREPARATION:**

* Data has been created for analysis by cleaning and organizing it. This may involves removing the outliers, finding and filling the missing values and transforming the data into meaningful insights.

**MODEL SELECTION:**

* Choose an appropriate linear regression model to fit the data. This may involve selecting a simple linear regression model or a more complex model include multiple variables.

**MODEL FITTING:**

* Fit the selected model by using the data in statistical software package such as “R Language” or “Python”.

**MODEL EVALUATION:**

* Evaluate the performance of the model by examining its goodness of fit and statistical significance.

**PREDICTION:**

* Once the model as been is fitted and evaluated, it can be used to predict unusual values in **Transport Efficiency Analysis.**

**DEPLOYMENT:**

* Once the model is satisfied and meets your requirements you can deploy it in a production environment in real time purpose.