**SYSTEM ANALYSIS**

**EXISTING SYSTEM:**

In the existing system the data preprocess has dine with structured data. Even though data pre-processing consumes a large chunk of time in an ML pipeline, it is astonishing to see the inadequate amount of work done to automate it. For data preprocessing, it can be noted that while the data pre process approaches are adequate for structured data, work still needs to be done to assimilate on Structured data. We suggest the incorporation of data-mining methods as they can deal with such unformed data. This can allow AutoML pipelines to create models capable of learning from Internet sources. In feature engineering, it should be noted that most methods used until now adhere to supervised learning. However, dataset specificity is high, and therefore, AutoML pipelines should be as generic as possible to accommodate the diverse datasets. Therefore, a gradual paradigm shift towards unsupervised.

**DISADVANTAGES OF EXISTING SYSTEM:**

* Feature Generation is not up to the mark where domain experts excepted results.
* Most AutoML tools emphasize the performance but in the real world, that’s just one aspect being covered in machine learning projects. So the companies can’t compromise the computing plus storage specification sheet.
* CASH(Combined Algorithm Selection and Hyperparameter) problem considers model selection and hyperparameters optimization as a single hierarchical parameter.
* **Algorithm**: SmartML,J48,C50

**PROPOSED SYSTEM:**

The proposed System aims at providing an overview of the advances seen in the realm of AutoML in recent years. We focus on individual aspects of AutoML and summarize the improvements achieved in recent years. The motivation of proposed system stems from the unavailability of a compact study of the current state of AutoML. While we acknowledge the existence of other surveys, their motive is to either provide an in-depth understanding of a particular segment of AutoML, provide just an experimental comparison of various tools used or are fixated towards deep learning models.

**ADVANTAGES OF PROPOSED SYSTEM:**

* We segment the AutoML pipeline into parts and review the contributions in each of these segments.
* We explore the various state-of-the-art tools currently available for AutoML and evaluate them.
* We also incorporate the advancements seen in machine learning which seems to be overshadowed by deep learning in recent years.

**Algorithm**:H2O-AutoML, LinearRegression, Gradient Boosting Regressor **EXISTING SYSTEM:**

In the existing system detects vehicle object and classifies the type of vehicle by Convolutional Neural Network (CNN). The vehicle object tracking algorithm tracks the vehicle object by changing the tracking center point according to the position of the recognized vehicle object on the image. Then, the monitor shows a localized image like a bird’s viewpoint with the visualized vehicle objects, and the system calculates the distance between the driving car and the visualized vehicle objects.

**DISADVANTAGES OF EXISTING SYSTEM:**

* This system extracts the feature from the satellite image through CNN using the satellite image as an input value and performs the binary classification with SVM to detect the vehicle BBox.
* This system utilizes BBox obtained by object detection based on videos or images. The algorithm applied to the system was compared with the Gaussian Mixture Model.
* **Algorithm**: Support Vector Machine (SVM),Convolutional Neural Network(CNN),Gaussian Mixture Model

**PROPOSED SYSTEM:**

In the proposed system we attempt is made for generate an object detection & tracking system (ODTS) with yolo, that can obtain moving information of target objects with names by combining object tracking algorithm with the deep learning-based object detection process. It is assumed that ODTS has been trained enough to perform object detection properly on a given image frame. ODTS receives selected frames of video at specified time interval c and gains sets of coordinates, n BBoxs are detected. BBoxT of objects on the given image frame at the time T, from the trained object detection system. The corresponding type or class ClassT of each detected object BBoxT is simultaneously classified by the object detection module.

**ADVANTAGES OF PROPOSED SYSTEM:**

* A deep learning model of R-CNN was used for training with yolo object detection model.
* This object tracking module was composed by introducing an object tracking model called yolo.

**Algorithm**: R-CNN(Regional Convolution Neural Network),YOLO Model