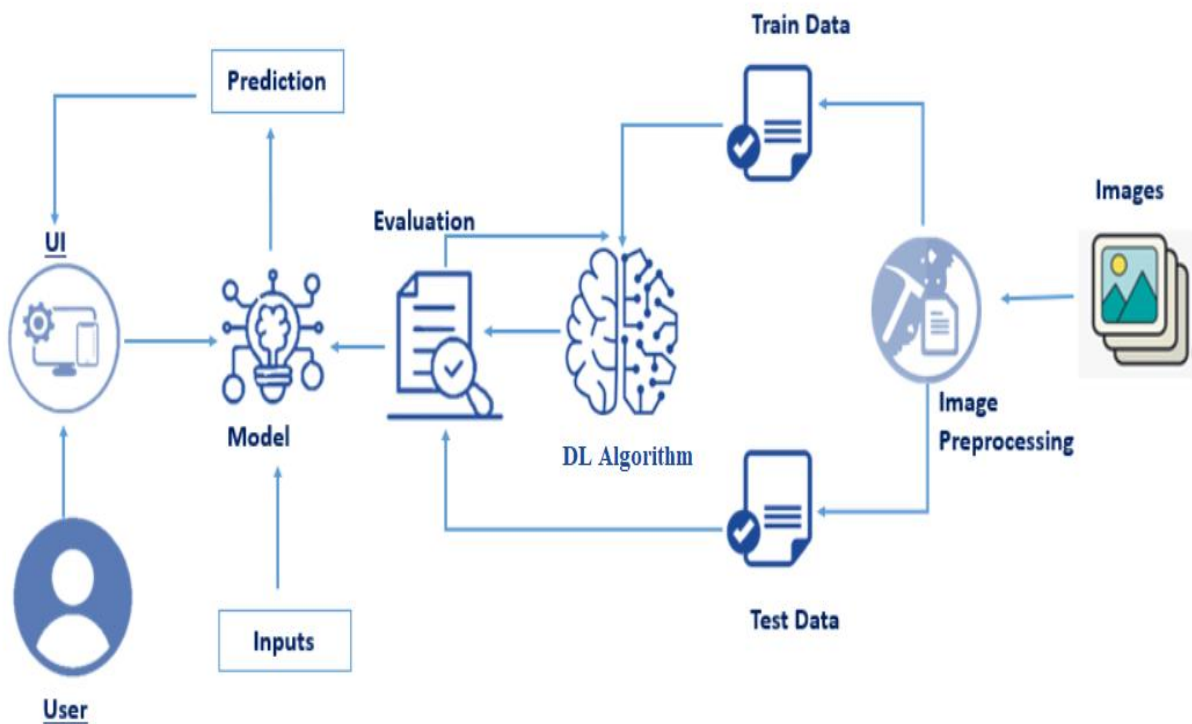


## PROJECT DESIGN PHASE-1

### SOLUTION ARCHITECTURE

Date	17 may 2023
Team id	NM2023TMID22561
Project name	Crime Vision: Advanced crime classification with deep learning

### SOLUTION ARCHITECTURE:



## INPUT

Assemble an extensive database of information about crimes, including details like the type of crime, the scene, the time, and any textual or visual descriptions that are available.  
Perform preprocessing operations on the data, including feature scaling, normalisation, and handling of categorical variables.  
Create training, validation, and testing sets from the dataset.

## PREDICTIONS

Create a comprehensive database of information regarding crimes, including specifics like the crime type, the location, the time, and any available written or graphical descriptions.

Preprocess the data by managing categorical variables, normalizing the features, and scaling the features.

Using the dataset, produce training, validation, and test sets.

## EVALUATION:

Utilising back propagation and gradient descent to optimise the selected loss function, train the deep learning model on the training dataset.

Analyse the model's performance on the validation set and make any necessary adjustments to the hyper parameters and model architecture.

Assess the final model's performance and generalizability using the testing data.

## TRAINING AND TESTING:

Deploy the trained model in a real-world setting, either as a stand-alone program or as a component of an existing system for categorising crimes.

Make an app or interface that takes data pertaining to crimes as an input and output projected crime categories.

Include the model in pertinent workflows, such as those that use data analysis platforms, crime reporting systems, or law enforcement tools.