**METHODOLOGY OF IMAGE TAMPERING DETECTION**

**Methodology**

**Dataset:-**

[**https://www.kaggle.com/datasets/divg07/casia-20-image-tampering-detection-dataset/data**](https://www.kaggle.com/datasets/divg07/casia-20-image-tampering-detection-dataset/data)

**About Dataset**

We have two class in the dataset which are original & tampered image.

**Project Flow:-**

1. Data Collection from Kaggle .
2. Installing & Importing required libraries .
3. Dataset loading using Opencv.
4. Data Preprocessing:- Labeling data, Image Resizing using opencv , LabelBinarizer(categorical values to number) etc.
5. EDA(Data Visualization)
6. Splitting data into train, test, validation with ratio of 80:10:10.
7. Model Training.
8. Model evaluation.
9. GUI (Web Application using Flask)

**List of Deep Learning Models:-**

1. VGG19
2. EFFICIENTNET-B2
3. ELA CNN (Best Model)

**List of Model Evaluation:-**

1. Classification Report
2. Confusion Matrix