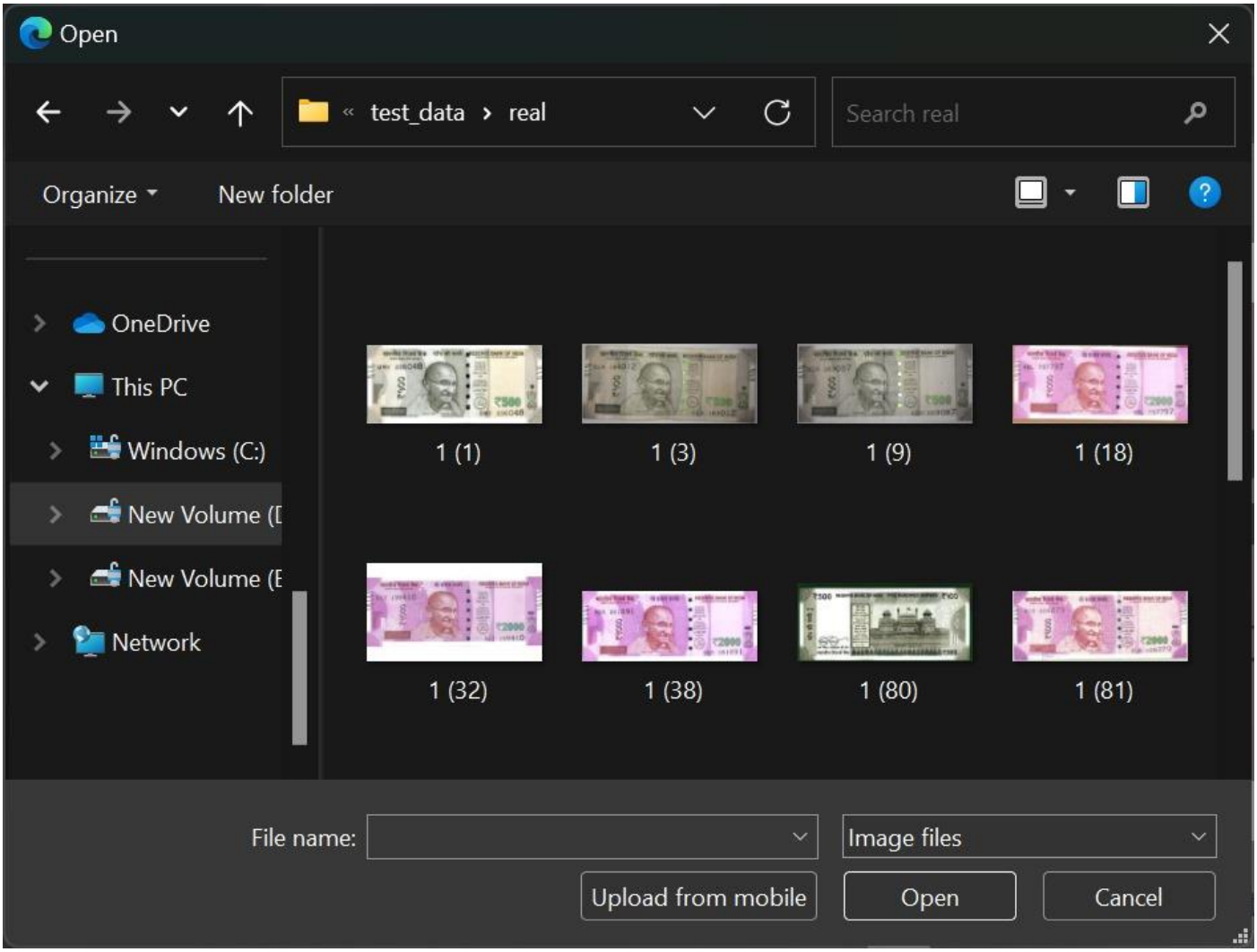
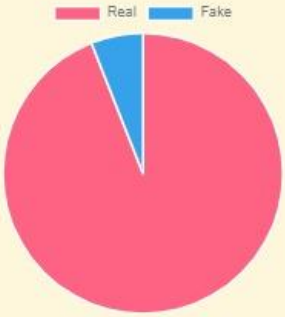
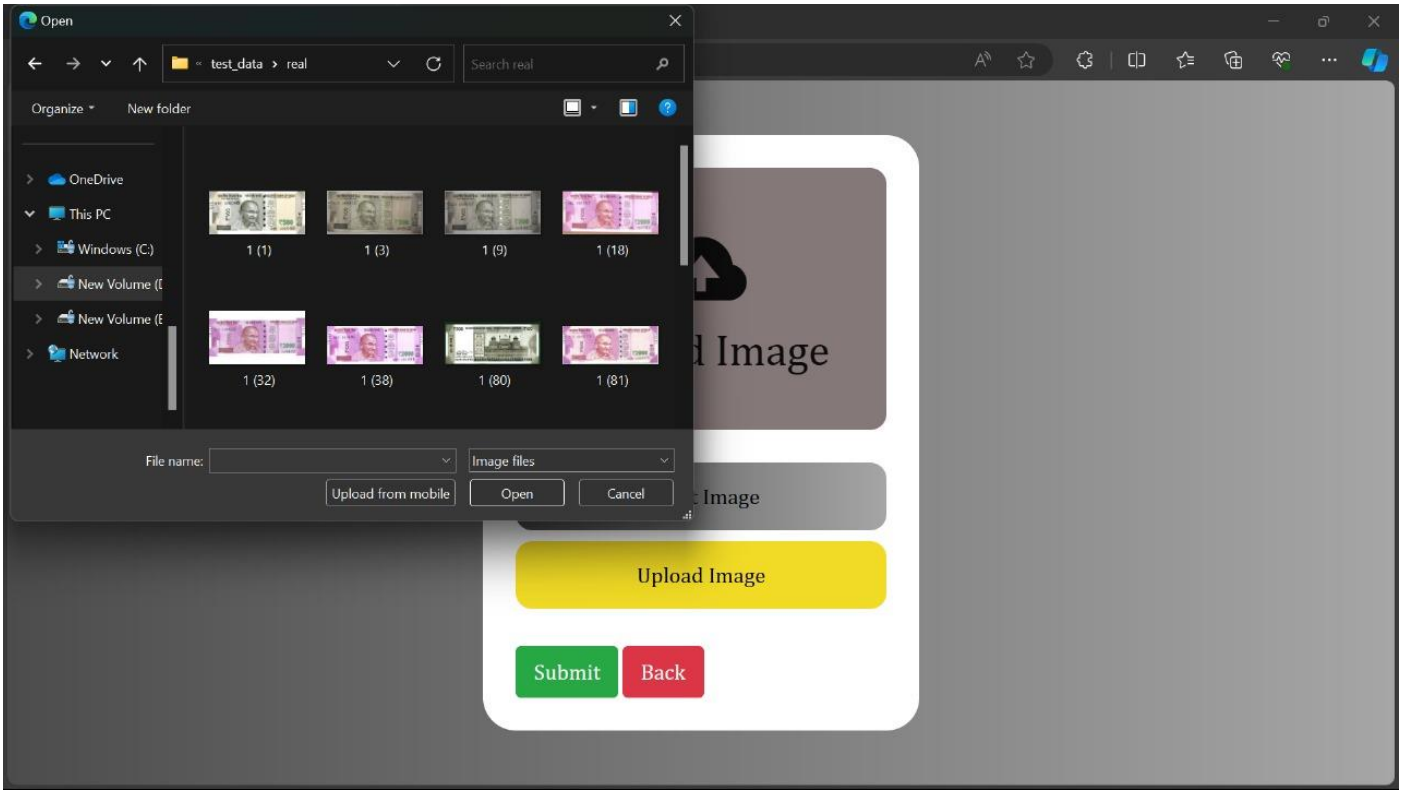


Currency Details



Fake currency prediction : **Real**

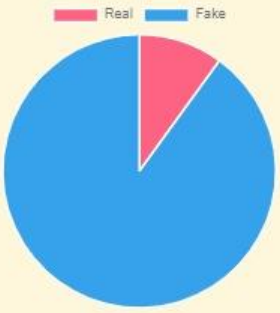
The Predicted Percentage matched : **94**

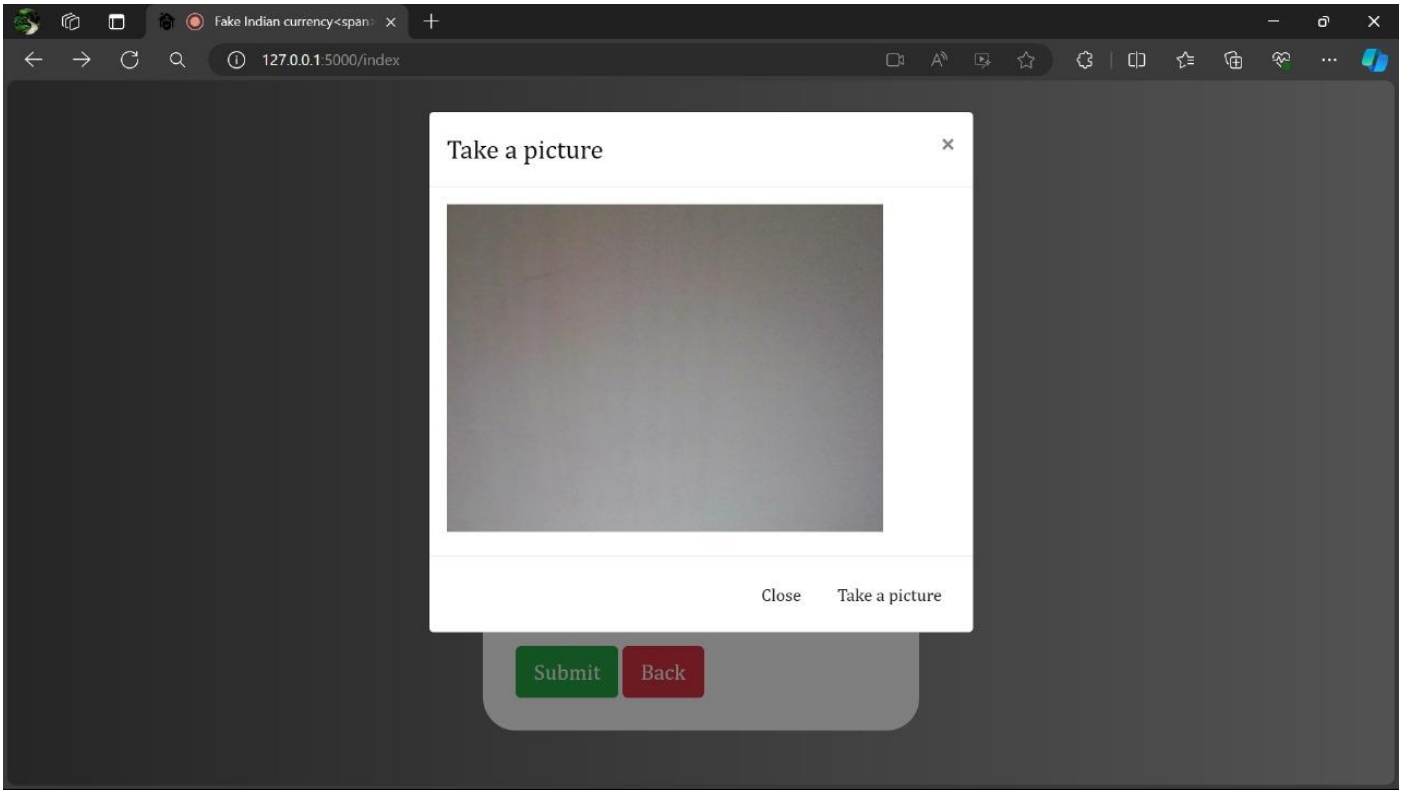


Currency Details

Fake currency prediction : **Fake**

The Predicted Percentage matched : **10**

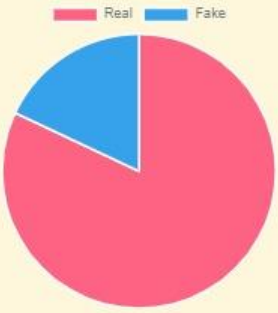




Currency Details

Fake currency prediction : **Real**

The Predicted Percentage matched : **82**



Currency Details

Fake currency prediction : **Real**

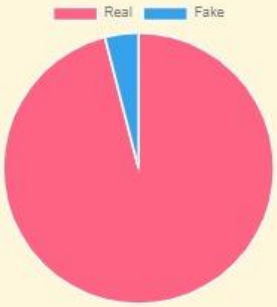
The Predicted Percentage matched : **58**

Currency Details

Fake currency prediction : **Real**

The Predicted Percentage matched : **89**

Currency Details



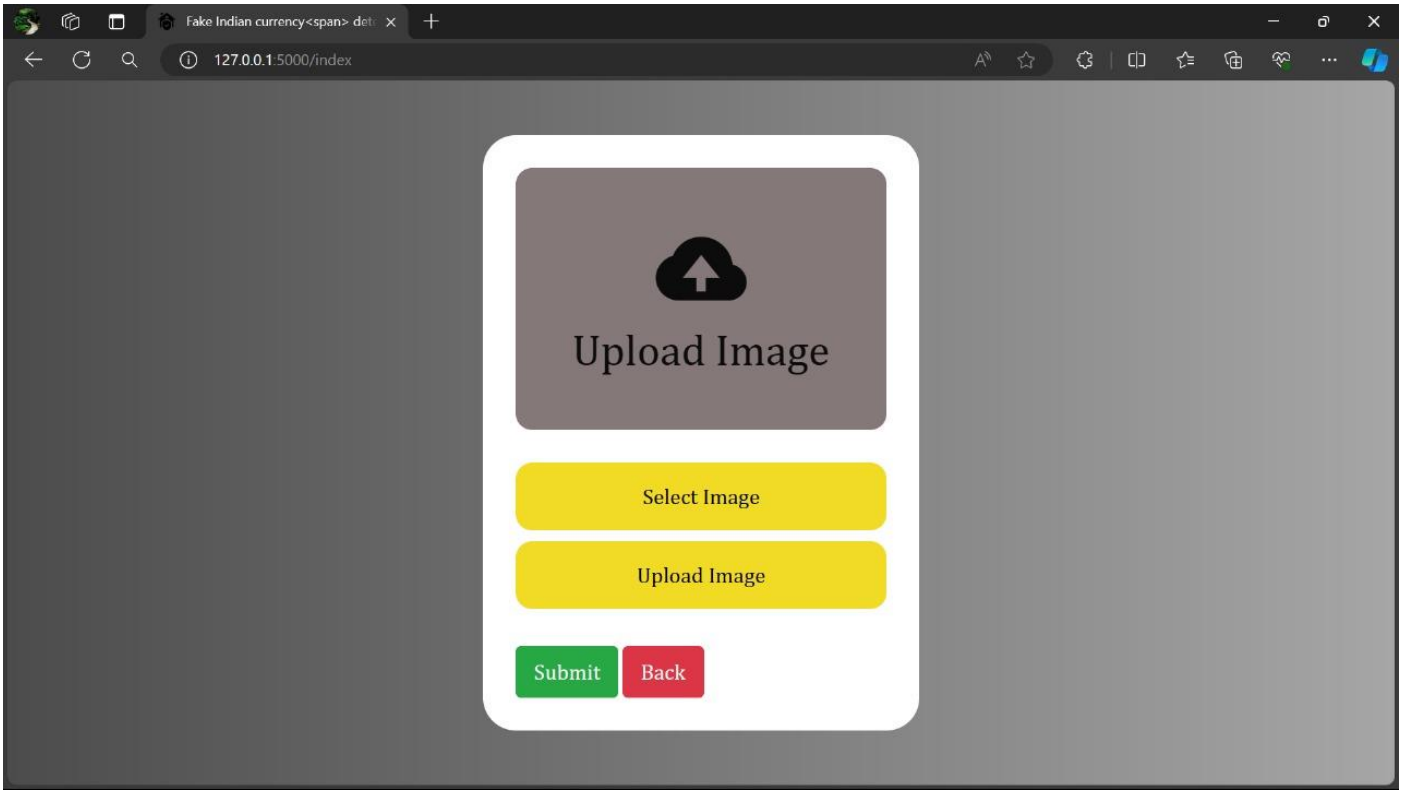
Fake currency prediction : **Real**

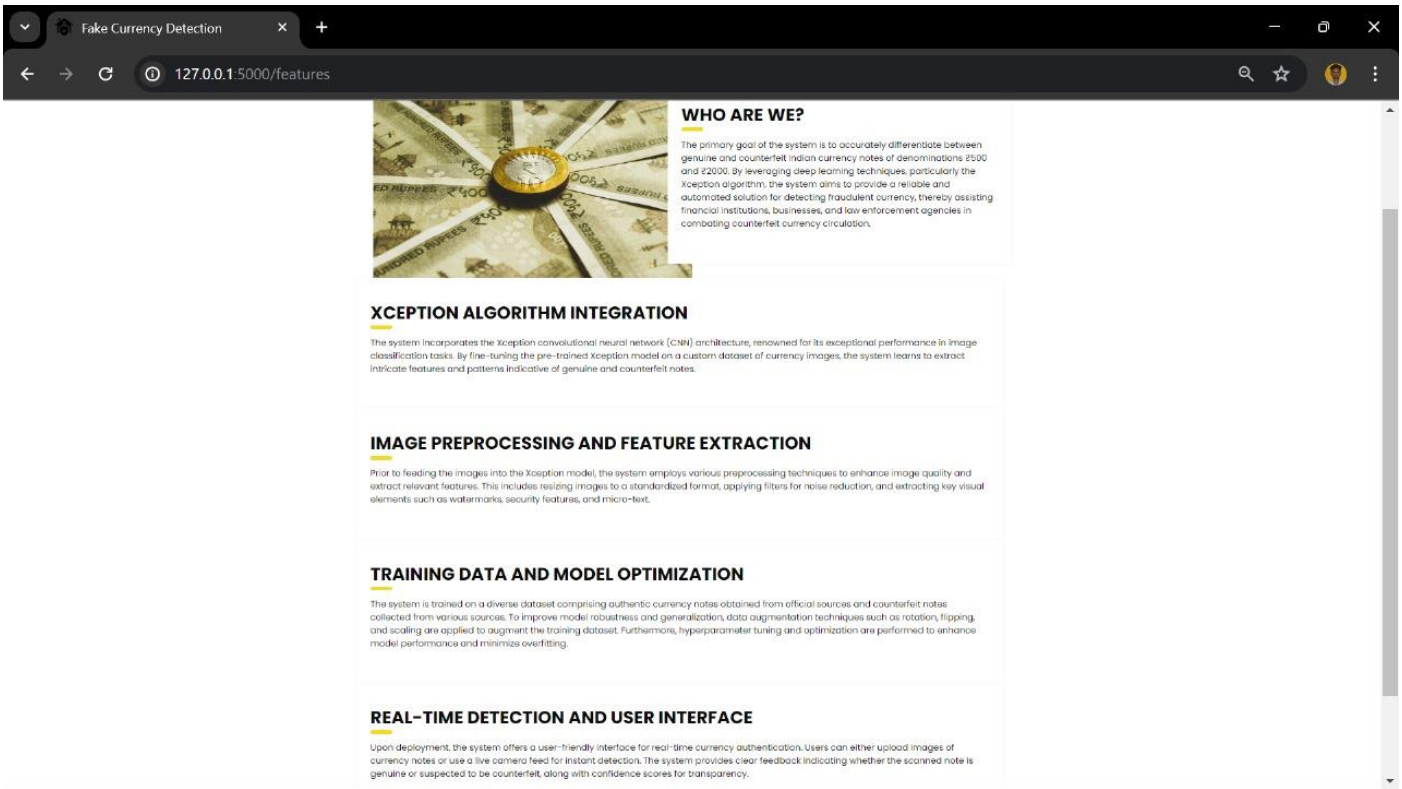
The Predicted Percentage matched : **96**

Currency Details

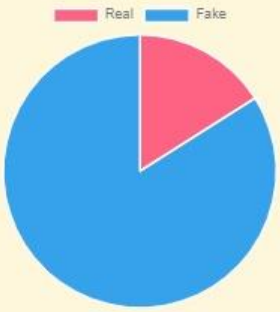
Fake currency prediction : **Fake**

The Predicted Percentage matched : **29**


Fake Indian currency dete
127.0.0.1:5000/index
Upload Image
Select Image
Upload Image
Submit
Back


Fake Currency Detection
127.0.0.1:5000/features
WHO ARE WE?
The primary goal of the system is to accurately differentiate between genuine and counterfeit Indian currency notes of denominations ₹500 and ₹2000. By leveraging deep learning techniques, particularly the Xception algorithm, the system aims to provide a reliable and automated solution for detecting fraudulent currency, thereby assisting financial institutions, businesses, and law enforcement agencies in combating counterfeit currency circulation.
XCEPTION ALGORITHM INTEGRATION
The system incorporates the Xception convolutional neural network (CNN) architecture, renowned for its exceptional performance in image classification tasks. By fine-tuning the pre-trained Xception model on a custom dataset of currency images, the system learns to extract intricate features and patterns indicative of genuine and counterfeit notes.
IMAGE PREPROCESSING AND FEATURE EXTRACTION
Prior to feeding the images into the Xception model, the system employs various preprocessing techniques to enhance image quality and extract relevant features. This includes resizing images to a standardized format, applying filters for noise reduction, and extracting key visual elements such as watermarks, security features, and micro-text.
TRAINING DATA AND MODEL OPTIMIZATION
The system is trained on a diverse dataset comprising authentic currency notes obtained from official sources and counterfeit notes collected from various sources. To improve model robustness and generalization, data augmentation techniques such as rotation, flipping, and scaling are applied to augment the training dataset. Furthermore, hyperparameter tuning and optimization are performed to enhance model performance and minimize overfitting.
REAL-TIME DETECTION AND USER INTERFACE
Upon deployment, the system offers a user-friendly interface for real-time currency authentication. Users can either upload images of currency notes or use a live camera feed for instant detection. The system provides clear feedback indicating whether the scanned note is genuine or suspected to be counterfeit, along with confidence scores for transparency.

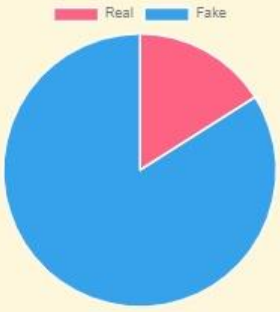
Currency Details



Fake currency prediction : **Fake**

The Predicted Percentage matched : **16**

Currency Details



Fake currency prediction : **Fake**

The Predicted Percentage matched : **16**

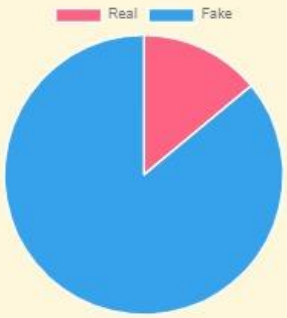
Upload Image

Select Image

Upload Image

Submit Back

Currency Details



Fake currency prediction : **Fake**

The Predicted Percentage matched : **14**

Currency Details

Fake currency prediction : **Real**

The Predicted Percentage matched : **83**

Currency Details

Fake currency prediction : **Fake**

The Predicted Percentage matched : **37**