HUMAN SCREAM DETECTION AND ANALYSIS FOR CONTROLLING CRIME RATE .

Detecting and analyzing human screams for controlling crime rates is a complex task that involves various technologies and methodologies.

STEPS INVOLVED IN CREATING A SOURCE CODE :

1. **Install Required Libraries**

2. Record Audio:

Use a microphone or pre-recorded audio data.

3. Feature Extraction

Extract audio features using the librosa library.

4. Train a Simple Classifier

You would need a labeled dataset with examples of screams and non-screams. Train a basic classifier using scikit-learn.

5. Real-time Detection

Use the trained classifier to detect screams in real-time. You can continuously record audio and classify chunks of it using a sliding window.

```
import librosa
import numpy as np
def extract_features(audio_path):
    y, sr = librosa.load(audio_path, sr=None)
    mfccs = librosa.feature.mfcc(y=y, sr=sr, n_mfcc=13)
    chroma = librosa.feature.chroma_stft(y=y, sr=sr)
    mel = librosa.feature.melspectrogram(y=y, sr=sr)
    spectral_centroid = librosa.feature.spectral_centroid(y=y, sr=sr)

    features = np.concatenate([mfccs.mean(axis=1), chroma.mean(axis=1), mel.mean(axis=1),
np.mean(spectral_centroid, axis=1)])
    return features

def detect_scream(features):

    threshold = 0.5
    scream_probability = sum(features) / len(features)
```

```
if scream_probability > threshold:
        return True
    else:
        return False

def analyze_scream(scream_detected):
    if scream_detected:
        print("Potential scream detected. Crime analysis and intervention required.")
    else:
        print("No scream detected. No immediate action required.")

if __name__ == "__main__":
    audio_path ="/content/man-scream-121085.mp3"
    audio_features = extract_features(audio_path)
    scream_detected = detect_scream(audio_features)
    analyze_scream(scream_detected)
```

OUTPUT:

Potential scream detected. Crime analysis and intervention required.

THIS IS A BASIC PROGRAM FOR SCREAM DETECTION WE DID . THIS IS JUST A PROTOTYPE IT WON'T WORKS IN REAL LIFE.

THANK YOU!